

Note to reviewers:

1. This document closely reflects the changes recommended by Q&E at the ISO meeting in Kobe, Japan, June 1996 and editorial changes recommended by ISO staff review at the ISO meeting in Toronto, Canada, Oct 1996.
2. This document reflects the latest version of the ATS Guidelines methods document (N434 plus ballot comment resolutions).
3. This document will be submitted for TR ballot in the near future.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 10303-302, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 184, Industrial automation systems and integration, Subcommittee SC4, Industrial data.

There is an urgent need for guidance on how to test implementations of ISO 10303 application protocols for conformance to the standard. This technical report contains abstract test cases that can be used to verify conformance to ISO 10303-202.

This document is being issued in the Technical Report (type 2) series of publications (according to subclause G.3.2.2 of part 1 of the ISO/IEC Directives 1995 as a "prospective standard for provisional application" in the field of conformance testing of ISO 10303 application protocols because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an "International Standard". It is proposed for provisional application so that experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO Central Secretariat.

A review of this Technical Report (type 2) will be carried out not later than three years after its publication with the options of: extension for another three years; conversion into an International Standard; or withdrawal.

ISO 10303 consists of the following parts under the general title Industrial automation systems and integration - Product data representation and exchange:

- Part 1, Overview and fundamental principles;
- Part 11, Description methods: The EXPRESS language reference manual;
- Part 12, Description method: The EXPRESS-I language reference manual;
- Part 21, Implementation methods: Clear text encoding of the exchange structure;
- Part 22, Implementation method: Standard data access interface specification;
- Part 23, Implementation method: C++ language binding to the standard data access interface;
- Part 24, Implementation method: C language binding to the standard data access interface;
- Part 26, Implementation method: Interface definition language binding to the standard data access interface;
- Part 31, Conformance testing methodology and framework: General concepts;
- Part 32, Conformance testing methodology and framework: Requirements on testing laboratories and clients;
- Part 33, Conformance testing methodology and framework: Structure and use of abstract test suites;
- Part 34, Conformance testing methodology and framework: Abstract test methods;
- Part 35, Conformance testing methodology and framework: Abstract test methods for standard data access interface implementations;
- Part 41, Integrated generic resources: Fundamentals of product description and support;
- Part 42, Integrated generic resources: Geometric and topological representation;
- Part 43, Integrated generic resources: Representation structures;
- Part 44, Integrated generic resources: Product structure configuration;
- Part 45, Integrated generic resource: Materials;
- Part 46, Integrated generic resources: Visual presentation;

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- Part 47, Integrated generic resource: Shape variation tolerances;
- Part 49, Integrated generic resource: Process structure and properties;
- Part 101, Integrated application resource: Draughting;
- Part 104, Integrated application resource: Finite element analysis;
- Part 105, Integrated application resource: Kinematics;
- Part 106, Integrated application resource: Building construction core model;
- Part 201, Application protocol: Explicit draughting;
- Part 202, Application protocol: Associative draughting;
- Part 203, Application protocol: Configuration controlled design;
- Part 204, Application protocol: Mechanical design using boundary representation;
- Part 205, Application protocol: Mechanical design using surface representation;
- Part 207, Application protocol: Sheet metal die planning and design;
- Part 208, Application protocol: Life cycle management - Change process;
- Part 209, Application protocol: Composite and metallic structural analysis and related design;
- Part 210, Application protocol: Electronic assembly, interconnect, and packaging design;
- Part 212, Application protocol: Electrotechnical design and installation;
- Part 213, Application protocol: Numerical control process plans for machined parts;
- Part 214, Application protocol: Core data for automotive mechanical design;
- Part 215, Application protocol: Ship arrangement;
- Part 216, Application protocol: Ship moulded forms;
- Part 217, Application protocol: Ship piping;
- Part 218, Application protocol: Ship structures;
- Part 220, Application protocol: Process planning, manufacture, and assembly of layered electronic products;
- Part 221, Application protocol: Functional data and their schematic representation for process plant;

- Part 222, Application protocol: Exchange of product data for composite structures;
- Part 223, Application protocol: Exchange of design and manufacturing product information for cast parts;
- Part 224, Application protocol: Mechanical product definition for process plans using mechanical feature;
- Part 225, Application protocol: Building elements using explicit shape representation;
- Part 226, Application protocol: Ship mechanical systems;
- Part 227, Application protocol: Plant spatial configuration;
- Part 228, Application protocol: Building services: Heating, ventilation, and air conditioning;
- Part 229, Application protocol: Exchange of design and manufacturing product information for forged parts;
- Part 230, Application protocol: Building structural frame: Steelwork;
- Part 231, Application protocol: Process engineering data: Process design and process specification of major equipment;
- Part 232, Application protocol: Technical data package;
- Part 301, Abstract test suite: Explicit draughting;
- Part 302, Abstract test suite: Associative draughting;
- Part 303, Abstract test suite: Configuration controlled design;
- Part 304, Abstract test suite: Mechanical design using boundary representation;
- Part 305, Abstract test suite: Mechanical design using surface representation;
- Part 307, Abstract test suite: Sheet metal die planning and design;
- Part 308, Abstract test suite: Life cycle management - Change process;
- Part 309, Abstract test suite: Composite and metallic structural analysis and related design;
- Part 310, Abstract test suite: Electronic assembly, interconnect, and packaging design;
- Part 312, Abstract test suite: Electrotechnical design and installation;
- Part 313, Abstract test suite: Numerical control process plans for machined parts;
- Part 314, Abstract test suite: Core data for automotive mechanical design;

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- Part 315, Abstract test suite: Ship arrangement;
- Part 316, Abstract test suite: Ship moulded forms;
- Part 317, Abstract test suite: Ship piping;
- Part 318, Abstract test suite: Ship structures;
- Part 320, Abstract test suite: Process planning, manufacture, and assembly of layered electronic products;
- Part 321, Abstract test suite: Functional data and their schematic representation for process plant;
- Part 322, Abstract test suite: Exchange of product data for composite structures;
- Part 323, Abstract test suite: Exchange of design and manufacturing product information for cast parts;
- Part 324, Abstract test suite: Mechanical product definition for process plans using mechanical features;
- Part 325, Abstract test suite: Building elements using explicit shape representation;
- Part 326, Abstract test suite: Ship mechanical systems;
- Part 327, Abstract test suite: Plant spatial configuration;
- Part 328, Abstract test suite: Building services: Heating, ventilation, and air conditioning;
- Part 329, Abstract test suite: Exchange of design and manufacturing product information for forged parts;
- Part 330, Abstract test suite: Building structural frame: Steelwork;
- Part 331, Abstract test suite: Process engineering data: Process design and process specification of major equipment;
- Part 332, Abstract test suite: Technical data package;
- Part 501, Application interpreted construct: Edge-based wireframe;
- Part 502, Application interpreted construct: Shell-based wireframe;
- Part 503, Application interpreted construct: Geometrically bounded 2D wireframe;
- Part 504, Application interpreted construct: Draughting annotation;
- Part 505, Application interpreted construct: Drawing structure and administration;

- Part 506, Application interpreted construct: Draughting elements;
- Part 507, Application interpreted construct: Geometrically bounded surface;
- Part 508, Application interpreted construct: Non-manifold surface;
- Part 509, Application interpreted construct: Manifold surface;
- Part 510, Application interpreted construct: Geometrically bounded wireframe;
- Part 511, Application interpreted construct: Topologically bounded surface;
- Part 512, Application interpreted construct: Faceted boundary representation;
- Part 513, Application interpreted construct: Elementary boundary representation;
- Part 514, Application interpreted construct: Advanced boundary representation;
- Part 515, Application interpreted construct: Constructive solid geometry;
- Part 517, Application interpreted construct: Mechanical design geometric presentation;
- Part 518, Application interpreted construct: Mechanical design shaded representation.

The structure of this International Standard is described in ISO 10303-1. The numbering of the parts of the International Standard reflects its structure:

- Parts 11 to 12 specify the description methods,
- Parts 21 to 26 specify the implementation methods,
- Parts 31 to 35 specify the conformance testing methodology and framework,
- Parts 41 to 49 specify the integrated generic resources,
- Parts 101 to 106 specify the integrated application resources,
- Parts 201 to 232 specify the application protocols,
- Parts 301 to 332 specify the abstract test suites, and
- Parts 501 to 518 specify the application interpreted constructs.

Should further parts be published, they will follow the same numbering pattern.

Annexes A, B, and C form an integral part of this part of ISO 10303. Annexes D, E, and F are for information only.

Introduction

ISO 10303 is an International Standard for the computer-interpretable representation and exchange of product data. The objective is to provide a neutral mechanism capable of describing product data throughout the life cycle of a product independent from any particular system. The nature of this description makes it suitable not only for neutral file exchange, but also as a basis for implementing and sharing product databases and archiving.

This International Standard is organized as a series of parts, each published separately. The parts of ISO 10303 fall into one of the following series: description methods, integrated resources, application interpreted constructs, application protocols, abstract test suites, implementation methods, and conformance testing. The series are described in ISO 10303-1. This part of ISO 10303 is a member of the abstract test suite series.

The purpose of an abstract test suite is to provide a basis for evaluating whether a particular implementation of an application protocol actually conforms to the requirements of that application protocol. A standard abstract test suite helps ensure that evaluations of conformance are conducted in a consistent manner by different test laboratories.

This part of ISO 10303 specifies the abstract test suite for ISO 10303-203:1994, *Application protocol: Configuration controlled 3D design of mechanical parts and assemblies*. The abstract test cases presented here are the basis for conformance testing of implementations of ISO 10303-203.

The abstract test suite is made up of two major parts:

- the test purposes, the specific items to be covered by conformance testing;
- the set of abstract test cases that meet those test purposes.

The test purposes are statements of the application protocol requirements that are to be addressed by the abstract test cases. Test purposes are derived primarily from the application protocol's application elements and AIM, as well as from other sources such as standards referenced by the application protocol and other requirements stated in the application protocol conformance requirements clause.

The abstract test cases address the test purposes by:

- specifying the requirements for input data to be used when testing an implementation of the application protocol;
- specifying the verdict criteria to be used when evaluating whether the implementation successfully converted the input data to a different form.

The abstract test cases set the requirements for the executable test cases that are required to actually conduct a conformance test. Executable test cases contain the scripts, detailed values, and other explicit information required to conduct a conformance test on a specific implementation of the application protocol.

At the time of publication of this abstract test suite report, conformance testing requirements had been established for implementations of application protocols in combination with ISO 10303-21 and ISO

10303-22. This part of ISO 10303 only specifies test purposes and abstract test cases for a subset of such implementations.

For ISO 10303-21, two kinds of implementations, preprocessors and postprocessors, must be tested. Both these are addressed in this abstract test suite.

For ISO 10303-22, a class of applications will possess the capability to upload and download AP-compliant SDAI-models or schema instances to and from applications that implement the SDAI. By providing test case data that correspond with SDAI-models, this abstract test suite addresses such applications in a single-schema scenario.

Industrial automation systems and integration — Product data representation and exchange — Part 303: Abstract test suite: Configuration Controlled 3D Designs of Mechanical Parts and Assemblies

1 Scope

This part of ISO 10303 specifies the abstract test suite to be used in the conformance testing of implementations of ISO 10303-203. The following are within the scope of this part of ISO 10303:

- the specification of the test purposes associated with ISO 10303-203;
- the verdict criteria to be applied during conformance testing of an implementation of ISO 10303-203 using ISO 10303-21 or ISO 10303-22;

NOTE - The verdict criteria are used to ascertain whether a test purpose has been satisfactorily met by an implementation under test (IUT) within the context of a given test case.

- the abstract test cases to be used as the basis for the executable test cases for conformance testing.

The following are outside the scope of this part of ISO 10303:

- the creation of executable test cases;
- test specification for tests other than conformance testing such as interoperability or acceptance testing;
- other implementation methods.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10303. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10303 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 10303-1:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 1: Overview and fundamental principles*.

ISO 10303-11:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 11: description methods: The EXPRESS language reference manual*.

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ISO 10303-21:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 21: Implementation method: Clear text encoding of the exchange structure.*

ISO 10303-22:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 22: Implementation method: Standard data access interface.*

ISO 10303-31:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 31: Conformance testing methodology and framework: General concepts.*

ISO 10303-32 *Industrial automation systems and integration — Product data representation and exchange — Part 32: Conformance testing methodology and framework: Requirements on testing laboratories and clients*¹.

ISO 10303-203:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 203: Application protocol: Configuration controlled design.*

3 Definitions

3.1 Terms defined in ISO 10303-1

This part of ISO 10303 makes use of the following terms defined in ISO 10303-1.

- application activity model (AAM);
- application interpreted model (AIM);
- application reference model (ARM);
- abstract test suite;
- application protocol (AP);
- conformance class;
- exchange structure;
- implementation method;
- unit of functionality (UoF).

3.2 Terms defined in ISO 10303-22

This part of ISO 10303 makes use of the following terms defined in ISO 10303-22.

¹ To be published.

- schema instance;
- SDAI-model.

3.3 Terms defined in ISO 10303-31

This part of ISO 10303 makes use of the following terms defined in ISO 10303-31.

- abstract test case;
- conformance testing;
- executable test case;
- implementation under test;
- postprocessor;
- preprocessor;
- test purpose;
- verdict criterion.

3.4 Terms defined in ISO 10303-203

This part of ISO 10303 makes use of the following terms defined in ISO 10303-203.

- solid model;
- wireframe model.

3.5 Other definitions

For the purposes of this part of ISO 10303, the following definitions apply.

3.5.1 application element: an application object, attribute, or assertion defining the information requirements in clause 4 of an AP.

3.5.2 application element test purpose: a test purpose derived from the application elements in the ARM of an AP.

3.5.3 application interpreted model test purpose: a test purpose derived from the AIM EXPRESS schema of an AP.

3.5.4 domain test purpose: a test purpose that arises from requirements that are implicit in an AP and derived from usage scenarios and the process and information flows in the application domain of an AP.

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3.5.5 external reference test purpose: test purposes derived from requirements that arise from standards referenced by an AP.

3.5.6 input specification: the instance model of an abstract test case presented in an unambiguous form - the table format for preprocessors and physical file (ISO 10303-21) or EXPRESS-I for postprocessors.

3.6 Abbreviations

For the purposes of this part of ISO 10303, the following abbreviations apply.

AAM	application activity model
AE	application element
AIM	application interpreted model
AP	application protocol
ARM	application reference model
CC	conformance class
IUT	implementation under test
SDAI	standard data access interface
UoF	unit of functionality

4 Test purposes

This clause specifies the test purposes for this part of ISO 10303. Test purposes in 4.1 and 4.2 are derived from the information requirements contained in clause 4 of ISO 10303-203 and the AIM EXPRESS schema in annex A of ISO 10303-203. Each test purpose statement identifies some specific element from the AEs or the AIM. Every test purpose statement implicitly requires that the identified element, as specified in the test purpose statement, will be correctly instantiated by the implementation under test.

Implementation method test purposes in 4.3 are derived from ISO 10303-21. Domain test purposes in 4.4 are derived from implicit domain requirements, and ISO 10303-203 rules. Implementation method and domain test purposes are individually identified by the prefix “other” in the test purpose number. These test purposes are statements of requirements that shall be met by a conforming implementation.

4.1 Application element test purposes

AE test purposes are individually identified by the prefix “ae” in the test purpose number. Each test purpose derived from the information requirements shall be interpreted as given in the following statement: the IUT shall preserve the semantic associated with the unique application element from which the test purpose

was derived. This implies that the semantics of the application element are preserved by the IUT between the input and output of a test, according to the reference path specified in the mapping table of the AP. AE test purposes apply to the input specifications of both preprocessor and postprocessor test cases. AE test purposes are derived from the AP information requirements as follows:

- application objects (see 4.2 of ISO 10303-203:1994). A test purpose derived from an application object is a simple statement of the object's name. Each application object test purpose is documented in a separate subclause.
- application objects with categorisations (subtypes) (see 4.2 of ISO 10303-203:1994). Test purposes derived from application objects with categorisations are statements of the application object name as a specific subtype.
- application object attributes (see 4.2 of ISO 10303-203). Test purposes derived from application object attributes are statements of the application object name with a specific attribute name.
- application assertions (see 4.3 of ISO 10303-203). Test purposes derived from application assertions are statements describing the relationship between two application objects. Application assertion test purposes address the directions of relationships as well as the number (cardinality) of relationships.

Each application object test purpose is listed as a separate subclause, with its related application object attribute test purposes and assertion test purposes.

4.1.1 Additional_design_information

ae1 Additional_design_information (see 6.9.1)

ae2 Additional_design_information is a collection of one Specification (see 6.9.1)

ae3 Additional_design_information is a collection of many Specificationae4 Additional_design_information applies to one Design_discipline_product_definition

ae5 Additional_design_information applies to many Design_discipline_product_definition

4.1.2 Advanced_B_rep

ae55 Advanced_b_rep (see 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

4.1.3 Alternate_part

ae105 Alternate_part (see 6.11.1)

ae106 Alternate_part is an alternate for one Part (see 6.11.1)

ae107 Alternate_part is an alternate for many Part

4.1.4 Approval

ae157 Approval (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

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ae158 Approval with date (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae159 Approval with purpose (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae160 Approval with status (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae161 Approval is authorized by one Person_organization (see 6.12.1)

ae162 Approval is authorized by many Person_organization

ae163 Approval approves one Work_order (see 6.6.1, 6.7.1)

ae164 Approval approves many Work_order

ae165 Approval approves one Work_request (see 6.6.1, 6.7.1)

ae166 Approval approves many Work_request

ae167 Approval approves one Planned_effectivity (see 6.18.1, 6.19.1, 6.20.1)

ae168 Approval approves many Planned_effectivity

ae169 Approval approves one Product_configuration (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae170 Approval approves many Product_configuration

ae171 Approval approves zero Design_discipline_product_definition (see 6.12.1)

ae172 Approval approves one Design_discipline_product_definition (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae173 Approval approves many Design_discipline_product_definition (see 6.40.1)

ae174 Approval approves one Part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae175 Approval approves many Part_version

ae176 Approval approves zero Supplied_part_version (see 6.12.1)

ae177 Approval approves one Supplied_part_version (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae178 Approval approves many Supplied_part_version

4.1.5 Change_order

ae228 Change_order (see 6.7.1)

ae229 Change_order with adopted_solution (see 6.7.1)

ae230 Change_order with change_date (see 6.7.1)

4.1.6 Change_request

ae280 Change_request (see 6.7.1)

ae281 Change_request with recommended_solution of one elements (see 6.7.1)

ae282 Change_request with recommended_solution of many elements
ae283 Change_request with version (see 6.7.1)
ae284 Change_request with consequence of one elements (see 6.7.1)
ae285 Change_request with consequence of many elements

4.1.7 Component_assembly_position

ae335 Component_assembly_position (see 6.35.1, 6.40.1)
ae336 Component_assembly_position with transformation (see 6.35.1, 6.40.1)
ae337 Component_assembly_position has one Engineering_next_higher_assembly (see 6.35.1, 6.40.1)
ae338 Component_assembly_position is a component in one Geometric_model_representation (see 6.35.1, 6.40.1)
ae339 Component_assembly_position is an assembly in one Geometric_model_representation (see 6.35.1, 6.40.1)

4.1.8 Design_discipline_product_definition

ae389 Design_discipline_product_definition (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae390 Design_discipline_product_definition with cad_filename (see 6.5.1)
ae391 Design_discipline_product_definition with cad_filename not present (see 6.8.1, 6.36.1)
ae392 Design_discipline_product_definition with creation_date (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae393 Design_discipline_product_definition with description (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae394 Design_discipline_product_definition with discipline_id (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae395 Design_discipline_product_definition has zero Additional_design_information (see 6.8.1, 6.36.1)
ae396 Design_discipline_product_definition has one Additional_design_information
ae397 Design_discipline_product_definition has many Additional_design_information
ae398 Design_discipline_product_definition is approved by one Approval (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae399 Design_discipline_product_definition is the assembly for zero Engineering_assembly (see 6.8.1, 6.36.1)
ae400 Design_discipline_product_definition is the assembly for one Engineering_assembly (see 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)
ae401 Design_discipline_product_definition is the assembly for many Engineering_assembly (see 6.17.1, 6.40.1)

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ae402 Design_discipline_product_definition is used as a component in zero Engineering_assembly (see 6.8.1, 6.36.1)

ae403 Design_discipline_product_definition is used as a component in one Engineering_assembly (see 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)

ae404 Design_discipline_product_definition is used as a component in many Engineering_assembly

ae405 Design_discipline_product_definition is the base design in zero Engineering_make_from (see 6.8.1, 6.36.1)

ae406 Design_discipline_product_definition is the base design in one Engineering_make_from (see 6.12.1)

ae407 Design_discipline_product_definition is the base design in many Engineering_make_from

ae408 Design_discipline_product_definition is the resultant design in zero Engineering_make_from (see 6.8.1, 6.36.1)

ae409 Design_discipline_product_definition is the resultant design in one Engineering_make_from (see 6.12.1)

ae410 Design_discipline_product_definition is the resultant design in many Engineering_make_from

ae411 Design_discipline_product_definition is created by one Person_organization (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae412 Design_discipline_product_definition is a definition of one Part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae413 Design_discipline_product_definition has geometric characteristics defined by zero Shape (see 6.8.1, 6.40.1)

ae414 Design_discipline_product_definition has geometric characteristics defined by one Shape (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

4.1.9 Design_specification

ae464 Design_specification (see 6.8.1)

4.1.10 Engineering_assembly

ae514 Engineering_assembly (see 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)

ae515 Engineering_assembly with security_code (see 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)

ae516 Engineering_assembly is effective in zero Planned_effectivity (see 6.13.1)

ae517 Engineering_assembly is effective in one Planned_effectivity (see 6.18.1, 6.19.1, 6.20.1)

ae518 Engineering_assembly is effective in many Planned_effectivity

ae519 Engineering_assembly has substitute components of zero Substitute_part (see 6.13.1, 6.14.1)

ae520 Engineering_assembly has substitute components of one Substitute_part (see 6.17.1)

ae521 Engineering_assembly has substitute components of many Substitute_part

ae522 Engineering_assembly assembly is defined by one Design_discipline_product_definition (see 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)

ae523 Engineering_assembly component is defined by one Design_discipline_product_definition (see 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1, 6.40.1)

ae524 Engineering_assembly as Engineering_next_higher_assembly

ae525 Engineering_assembly as Engineering_promissory_usage

4.1.11 Engineering_make_from

ae575 Engineering_make_from (see 6.12.1)

ae576 Engineering_make_from has a base design of one Design_discipline_product_definition (see 6.12.1)

ae577 Engineering_make_from has a resultant design of one Design_discipline_product_definition (see 6.12.1)

4.1.12 Engineering_next_higher_assembly

ae627 Engineering_next_higher_assembly (see 6.15.1, 6.16.1, 6.19.1, 6.35.1, 6.40.1)

ae628 Engineering_next_higher_assembly with as_required

ae629 Engineering_next_higher_assembly with component_quantity (see 6.15.1, 6.16.1, 6.19.1, 6.35.1)

ae630 Engineering_next_higher_assembly with reference_designator (see 6.15.1, 6.16.1, 6.19.1, 6.35.1, 6.40.1)

ae631 Engineering_next_higher_assembly with unit_of_measure (see 6.15.1, 6.16.1, 6.19.1, 6.35.1)

ae632 Engineering_next_higher_assembly is located at zero Component_assembly_position (see 6.15.1)

ae633 Engineering_next_higher_assembly is located at one Component_assembly_position (see 6.35.1)

4.1.13 Engineering_promissory_usage

ae683 Engineering_promissory_usage (see 6.14.1, 6.17.1)

4.1.14 Faceted_B_rep

ae733 Faceted_b_rep (see 6.29.1, 6.30.1)

4.1.15 Geometric_model_representation

ae783 Geometric_model_representation (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae784 Geometric_model_representation represents components in zero Component_assembly_position (see 6.21.1, 6.26.1, 6.28.1, 6.30.1, 6.31.1)

ae785 Geometric_model_representation represents components in one Component_assembly_position (see 6.35.1, 6.40.1)

ae786 Geometric_model_representation represents components in many Component_assembly_position

ae787 Geometric_model_representation represents an assembly in zero Component_assembly_position (see 6.21.1, 6.26.1, 6.28.1, 6.30.1, 6.31.1)

ae788 Geometric_model_representation represents an assembly in one Component_assembly_position

ae789 Geometric_model_representation represents an assembly in many Component_assembly_position (see 6.35.1, 6.40.1)

ae790 Geometric_model_representation is the representation of zero Shape

ae791 Geometric_model_representation is the representation of one Shape (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae792 Geometric_model_representation is the representation of many Shape (see 6.40.1)

ae793 Geometric_model_representation represents one Shape_aspect

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ae794 Geometric_model_representation as Advanced_b_rep

ae795 Geometric_model_representation as Faceted_b_rep

ae796 Geometric_model_representation as Manifold_surface_with_topology

ae797 Geometric_model_representation as Non_topological_surface_and_wireframe

ae798 Geometric_model_representation as Wireframe_with_topology

4.1.16 Manifold_surface_with_topology

ae848 Manifold_surface_with_topology (see 6.28.1)

4.1.17 Material_specification

ae898 Material_specification (see 6.8.1)

4.1.18 Non_topological_surface_and_wireframe

ae948 Non_topological_surface_and_wireframe (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1)

4.1.19 Part

ae998 Part (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae999 Part with part_classification (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1000 Part with part_classification not present

ae1001 Part with part_nomenclature (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1002 Part with part_number (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1003 Part with part_type (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1004 Part with standard_part_indicator (see 6.5.1)

ae1005 Part has an alternate of zero Alternate_part (see 6.9.1, 6.22.1)

ae1006 Part has an alternate of one Alternate_part (see 6.11.1)

ae1007 Part has an alternate of many Alternate_part

ae1008 Part has one Part_version (see 6.1.1, 6.2.1, 6.4.1, 6.5.1, 6.9.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1009 Part has many Part_version (see 6.3.1, 6.6.1, 6.7.1, 6.8.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1010 Part has substitutes of zero Substitute_part (see 6.9.1, 6.22.1)
 ae1011 Part has substitutes of one Substitute_part (see 6.17.1)
 ae1012 Part has substitutes of many Substitute_part
 ae1013 Part is owned by one Person_organization (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1014 Part satisfies zero Product_configuration (see 6.9.1, 6.22.1)
 ae1015 Part satisfies one Product_configuration (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
 ae1016 Part satisfies many Product_configuration

4.1.20 Part_version

ae1066 Part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1067 Part_version with contract_number (see 6.4.1, 6.5.1, 6.9.1)
 ae1068 Part_version with contract_number not present (see 6.10.1, 6.23.1)
 ae1069 Part_version with make_or_buy_code = BOUGHT (see 6.1.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.23.1, 6.24.1, 6.26.1, 6.28.1, 6.29.1, 6.31.1, 6.32.1, 6.34.1, 6.35.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1070 Part_version with make_or_buy_code = NOT_KNOWN
 ae1071 Part_version with make_or_buy_code = MADE (see 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.22.1, 6.25.1, 6.27.1, 6.30.1, 6.33.1, 6.36.1)
 ae1072 Part_version with release_status (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1073 Part_version with revision_letter (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1074 Part_version with security_code (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1075 Part_version is approved by one Approval (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1076 Part_version is defined by one Design_discipline_product_definition (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
 ae1077 Part_version is defined by many Design_discipline_product_definition (see 6.40.1)

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ae1078 Part_version is identified as one Supplied_part_version (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1079 Part_version is identified as many Supplied_part_version

ae1080 Part_version is created by one Person_organization (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1081 Part_version is the result of zero Work_order (see 6.10.1, 6.23.1)

ae1082 Part_version is the result of one Work_order (see 6.6.1, 6.7.1)

ae1083 Part_version is the result of many Work_order

ae1084 Part_version is referenced by zero Work_request (see 6.10.1, 6.23.1)

ae1085 Part_version is referenced by one Work_request (see 6.6.1, 6.7.1)

ae1086 Part_version is referenced by many Work_request

ae1087 Part_version shall define a variation of one Part (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

4.1.21 Person_organization

ae1137 Person_organization (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1138 Person_organization with person_organization_id (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1139 Person_organization with address (see 6.4.1, 6.5.1, 6.9.1)

ae1140 Person_organization with address not present (see 6.11.1, 6.24.1)

ae1141 Person_organization with organization (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1142 Person_organization with person (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1143 Person_organization is the owner of zero Part (see 6.11.1, 6.24.1)

ae1144 Person_organization is the owner of one Part (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1145 Person_organization is the owner of many Part

ae1146 Person_organization is the creator of zero Design_discipline_product_definition (see 6.11.1, 6.24.1)

ae1147 Person_organization is the creator of one Design_discipline_product_definition (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1148 Person_organization is the creator of many Design_discipline_product_definition (see 6.40.1)
ae1149 Person_organization is the creator of zero Part_version (see 6.11.1, 6.24.1)
ae1150 Person_organization is the creator of one Part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
ae1151 Person_organization is the creator of many Part_version
ae1152 Person_organization identifies zero Supplier (see 6.11.1, 6.16.1, 6.18.1, 6.24.1, 6.32.1)
ae1153 Person_organization identifies one Supplier (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)
ae1154 Person_organization identifies many Supplier
ae1155 Person_organization authorizes zero Approval (see 6.11.1, 6.24.1)
ae1156 Person_organization authorizes one Approval
ae1157 Person_organization authorizes many Approval
ae1158 Person_organization is notified of zero Work_request (see 6.11.1, 6.24.1)
ae1159 Person_organization is notified of one Work_request (see 6.6.1, 6.7.1)
ae1160 Person_organization is notified of many Work_request

4.1.22 Planned_date_effectivity

ae1210 Planned_date_effectivity (see 6.18.1)
ae1211 Planned_date_effectivity with end_date (see 6.18.1)
ae1212 Planned_date_effectivity with end_date not present
ae1213 Planned_date_effectivity with start_date (see 6.18.1)

4.1.23 Planned_effectivity

ae1263 Planned_effectivity is approved by one Approval (see 6.18.1, 6.19.1, 6.20.1)
ae1264 Planned_effectivity affects one Engineering_assembly (see 6.18.1, 6.19.1, 6.20.1)
ae1265 Planned_effectivity identifies one Product_configuration (see 6.18.1, 6.19.1, 6.20.1)
ae1266 Planned_effectivity as Planned_date_effectivity
ae1267 Planned_effectivity as Planned_lot_effectivity
ae1268 Planned_effectivity as Planned_sequence_effectivity

4.1.24 Planned_lot_effectivity

ae1318 Planned_lot_effectivity (see 6.20.1)
ae1319 Planned_lot_effectivity with lot_number (see 6.20.1)
ae1320 Planned_lot_effectivity with lot_size (see 6.20.1)
ae1321 Planned_lot_effectivity with lot_size_unit_of_measure (see 6.20.1)

4.1.25 Planned_sequence_effectivity

ae1371 Planned_sequence_effectivity (see 6.19.1)
ae1372 Planned_sequence_effectivity with component_quantity (see 6.19.1)
ae1373 Planned_sequence_effectivity with from_effectivity_id (see 6.19.1)

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- ae1374 Planned_sequence_effectivity with quantity_unit_of_measure (see 6.19.1)
- ae1375 Planned_sequence_effectivity with thru_effectivity_id (see 6.19.1)
- ae1376 Planned_sequence_effectivity with thru_effectivity_id not present

4.1.26 Process_specification

- ae1426 Process_specification (see 6.8.1)

4.1.27 Product_configuration

- ae1476 Product_configuration (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1477 Product_configuration with item_id (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1478 Product_configuration with phase_of_product (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1479 Product_configuration is approved by one Approval (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1480 Product_configuration is satisfied by zero Part
- ae1481 Product_configuration is satisfied by one Part (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1482 Product_configuration is satisfied by many Part
- ae1483 Product_configuration has zero Planned_effectivity (see 6.10.1)
- ae1484 Product_configuration has one Planned_effectivity (see 6.18.1, 6.19.1, 6.20.1)
- ae1485 Product_configuration has many Planned_effectivity
- ae1486 Product_configuration is the configuration of one Product_model (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

4.1.28 Product_model

- ae1536 Product_model (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1537 Product_model with model_name (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1538 Product_model has one Product_configuration (see 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)
- ae1539 Product_model has many Product_configuration

4.1.29 Shape

- ae1589 Shape (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
- ae1590 Shape defines geometric characteristics of one Design_discipline_product_definition (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)
- ae1591 Shape defines geometric characteristics of many Design_discipline_product_definition
- ae1592 Shape represents zero Geometric_model_representation

ae1593 Shape represents one Geometric_model_representation (see 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1, 6.40.1)

ae1594 Shape represents many Geometric_model_representation

ae1595 Shape is composed of zero Shape_aspect (see 6.21.1, 6.26.1, 6.28.1, 6.29.1, 6.31.1)

ae1596 Shape is composed of one Shape_aspect

ae1597 Shape is composed of many Shape_aspect

4.1.30 Shape_aspect

ae1648 Shape_aspect is represented by one Geometric_model_representation

ae1649 Shape_aspect is represented by many Geometric_model_representation

ae1650 Shape_aspect has characteristics described by zero Specification

ae1651 Shape_aspect has characteristics described by one Specification

ae1652 Shape_aspect has characteristics described by many Specification

ae1653 Shape_aspect is a portion of one Shape

4.1.31 Specification

ae1703 Specification with specification_code (see 6.8.1, 6.9.1)

ae1704 Specification with specification_source (see 6.8.1, 6.9.1)

ae1705 Specification is constrained by zero Usage_constraint (see 6.8.1)

ae1706 Specification is constrained by one Usage_constraint (see 6.9.1)

ae1707 Specification is constrained by many Usage_constraint

ae1708 Specification is identified by one Additional_design_information (see 6.9.1)

ae1709 Specification specifies a characteristic of zero Shape_aspect (see 6.8.1)

ae1710 Specification specifies a characteristic of one Shape_aspect

ae1711 Specification specifies a characteristic of many Shape_aspect

ae1712 Specification as Design_specification

ae1713 Specification as Material_specification

ae1714 Specification as Process_specification

ae1715 Specification as Surface_finish_specification

4.1.32 Start_order

ae1765 Start_order (see 6.6.1)

4.1.33 Start_request

ae1815 Start_request (see 6.6.1)

4.1.34 Substitute_part

ae1865 Substitute_part (see 6.17.1)

ae1866 Substitute_part is a substitute for one Engineering_assembly (see 6.17.1)

ae1867 Substitute_part is a Part object and substitutes for one Part (see 6.17.1)

ae1868 Substitute_part is a Part object and substitutes for many Part

4.1.35 Supplied_part_version

ae1918 Supplied_part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)

ae1919 Supplied_part_version with certification_required (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1920 Supplied_part_version with supplier_part_number (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1921 Supplied_part_version with supplier_part_number not present (see 6.1.1, 6.21.1, 6.26.1, 6.28.1, 6.29.1, 6.31.1)

ae1922 Supplied_part_version is approved by one Approval (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1923 Supplied_part_version corresponds to one Part_version (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

ae1924 Supplied_part_version is produced by one Supplier (see 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1)

4.1.36 Supplier

ae1974 Supplier (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)

ae1975 Supplier with supplier_id (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.35.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)

ae1976 Supplier produces zero Supplied_part_version

ae1977 Supplier produces one Supplied_part_version (see 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)

ae1978 Supplier produces many Supplied_part_version (see 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, 6.16.1, 6.17.1, 6.18.1, 6.19.1, 6.20.1, 6.35.1)

ae1979 Supplier is identified by one Person_organization (see 6.1.1, 6.2.1, 6.21.1, 6.22.1, 6.23.1, 6.24.1, 6.25.1, 6.26.1, 6.27.1, 6.28.1, 6.29.1, 6.30.1, 6.31.1, 6.32.1, 6.33.1, 6.34.1, 6.36.1, 6.37.1, 6.38.1, 6.39.1)

4.1.37 Surface_finish_specification

ae2029 Surface_finish_specification (see 6.9.1)

4.1.38 Usage_constraint

ae2079 Usage_constraint (see 6.9.1)

ae2080 Usage_constraint with element (see 6.9.1)

ae2081 Usage_constraint with value (see 6.9.1)

ae2082 Usage_constraint applies to one Specification (see 6.9.1)

4.1.39 Wireframe_with_topology

ae2132 Wireframe_with_topology (see 6.26.1, 6.27.1)

4.1.40 Work_order

ae2182 Work_order with work_order_id (see 6.6.1, 6.7.1)
 ae2183 Work_order with additional_data (see 6.6.1, 6.7.1)
 ae2184 Work_order with additional_data not present
 ae2185 Work_order with analysis_data (see 6.6.1, 6.7.1)
 ae2186 Work_order with analysis_data not present
 ae2187 Work_order is approved by one Approval (see 6.6.1, 6.7.1)
 ae2188 Work_order applies to one Part_version (see 6.6.1, 6.7.1)
 ae2189 Work_order applies to many Part_version
 ae2190 Work_order incorporates one Work_request (see 6.6.1, 6.7.1)
 ae2191 Work_order incorporates many Work_request
 ae2192 Work_order as Change_order
 ae2193 Work_order as Start_order

4.1.41 Work_request

2243 Work_request with description (see 6.6.1, 6.7.1)
 ae2244 Work_request with reason (see 6.6.1, 6.7.1)
 ae2245 Work_request with request_date (see 6.6.1, 6.7.1)
 ae2246 Work_request with status (see 6.6.1, 6.7.1)
 ae2247 Work_request with work_request_id (see 6.6.1, 6.7.1)
 ae2248 Work_request is approved by one Approval (see 6.6.1, 6.7.1)
 ae2249 Work_request is based on one Part_version (see 6.6.1, 6.7.1)
 ae2250 Work_request is based on many Part_version
 ae2251 Work_request notice is received by one Person_organization
 ae2252 Work_request notice is received by many Person_organization (see 6.6.1, 6.7.1)
 ae2253 Work_request is incorporated by zero Work_order
 ae2254 Work_request is incorporated by one Work_order (see 6.6.1, 6.7.1)
 ae2255 Work_request as Change_request
 ae2256 Work_request as Start_request

4.2 AIM test purposes

AIM test purposes are identified by the prefix “aim” in the test purpose identifier. Each test purpose derived from the AIM EXPRESS shall be interpreted as given in the following statement: the postprocessor shall accept the input in accordance with the AIM EXPRESS structure corresponding to this test purpose. This implies that the semantics of the application element represented by the AIM element are preserved by the IUT between the input and output of a test according to the reference path specified in the mapping table of the AP. This also implies no violations of any constraints (e.g., where rules or global rules) that apply to the AIM element. AIM test purposes apply to the input specifications of postprocessor test cases only. AIM test purposes are derived directly from the expanded EXPRESS listing contained in annex A of ISO 10303-203 as follows:

— AIM entities. A test purpose derived from an AIM entity is a simple statement of the entity name.

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— AIM entity attributes. A test purpose derived from an AIM entity attribute is a statement of the AIM entity with a given attribute.

Each AIM entity test purpose is grouped with its attribute test purposes.

4.2.1 Action_Directive

aim1 Action_Directive (see 6.6.2, 6.7.2)

aim2 Action_Directive with requests of one element (see 6.6.2, 6.7.2)

aim3 Action_Directive with requests of many elements

4.2.2 Action_Method

aim4 Action_Method (see 6.6.2, 6.7.2)

4.2.3 Action_Request_Solution

aim5 Action_Request_Solution (see 6.6.2, 6.7.2)

4.2.4 Action_Request_Status

aim6 Action_Request_Status (see 6.6.2, 6.7.2)

4.2.5 Action_Status

aim7 Action_Status (see 6.6.2, 6.7.2)

4.2.6 Address

aim8 Address

aim9 Address with internal_location

aim10 Address with internal_location not present

aim11 Address with street_number

aim12 Address with street_number not present

aim13 Address with street

aim14 Address with street not present

aim15 Address with postal_box

aim16 Address with postal_box not present

aim17 Address with town

aim18 Address with town not present

aim19 Address with region

aim20 Address with region not present

aim21 Address with postal_code

aim22 Address with postal_code not present

aim23 Address with country

aim24 Address with country not present

aim25 Address with facsimile_number

aim26 Address with facsimile_number not present
aim27 Address with telephone_number
aim28 Address with telephone_number not present
aim29 Address with electronic_mail_address
aim30 Address with electronic_mail_address not present
aim31 Address with telex_number
aim32 Address with telex_number not present

4.2.7 Advanced_Brep_Shape_Representation

aim33 Advanced_Brep_Shape_Representation (see 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim34 Advanced_Brep_Shape_Representation with items of one element (see 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2)
aim35 Advanced_Brep_Shape_Representation with items of many elements (see 6.34.2, 6.35.2, 6.35.3, 6.39.2, 6.40.2)

4.2.8 Advanced_Face

aim36 Advanced_Face (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim37 Advanced_Face with bounds of one element (see 6.28.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim38 Advanced_Face with bounds of many elements (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.39.2, 6.40.2)
aim39 Advanced_Face with same_sense = TRUE (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim40 Advanced_Face with same_sense = FALSE (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.9 Alternate_Product_Relationship

aim41 Alternate_Product_Relationship (see 6.11.2)

4.2.10 Application_Context

aim42 Application_Context (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.11 Application_Context_Element

aim43 Application_Context_Element

4.2.12 Application_Protocol_Definition

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aim44 Application_Protocol_Definition (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.13 Approval

aim45 Approval (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.14 Approval_Date_Time

aim46 Approval_Date_Time (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim47 Approval_Date_Time with date_time as Date_And_Time (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.15 Approval_Person_Organization

aim48 Approval_Person_Organization (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim49 Approval_Person_Organization with person_organization as Person_And_Organization (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.16 Approval_Relationship

aim50 Approval_Relationship (see 6.19.2)

4.2.17 Approval_Role

aim51 Approval_Role (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.18 Approval_Status

aim52 Approval_Status (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.19 Area_Measure_With_Unit

aim53 Area_Measure_With_Unit

aim54 Area_Measure_With_Unit with value_component as Area_Measure

4.2.20 Area_Unit

aim55 Area_Unit

4.2.21 Assembly_Component_Usage

aim56 Assembly_Component_Usage (see 6.13.2, 6.15.2, 6.15.2, 6.16.2, 6.16.2, 6.18.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3)

aim57 Assembly_Component_Usage with reference_designator (see 6.15.2, 6.16.2, 6.19.2, 6.35.2, 6.35.3)

aim58 Assembly_Component_Usage with reference_designator not present (see 6.13.2, 6.15.2, 6.16.2, 6.18.2, 6.20.2)

4.2.22 Assembly_Component_Usage_Substitute

aim59 Assembly_Component_Usage_Substitute (see 6.17.2)

4.2.23 Axis2_Placement_3d

aim60 Axis2_Placement_3d (see 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim61 Axis2_Placement_3d with axis (see 6.21.2, 6.22.2, 6.23.2, 6.26.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim62 Axis2_Placement_3d with axis not present (see 6.25.2, 6.30.2, 6.36.2)

aim63 Axis2_Placement_3d with ref_direction (see 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim64 Axis2_Placement_3d with ref_direction not present (see 6.21.2, 6.23.2, 6.28.2, 6.30.2, 6.36.2)

4.2.24 B_Spline_Curve

aim65 B_Spline_Curve as (Rational_B_Spline_Curve AND B_Spline_Curve_With_Knots)

aim66 B_Spline_Curve as (Rational_B_Spline_Curve AND Bezier_Curve)

aim67 B_Spline_Curve as (Rational_B_Spline_Curve AND Quasi_Uniform_Curve)

aim68 B_Spline_Curve as (Rational_B_Spline_Curve AND Uniform_Curve)

4.2.25 B_Spline_Curve_With_Knots

aim69 B_Spline_Curve_With_Knots (see 6.21.2, 6.37.2, 6.38.2)

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aim70 B_Spline_Curve_With_Knots with control_points_list of many elements (see 6.21.2, 6.37.2, 6.38.2)
aim71 B_Spline_Curve_With_Knots with curve_form = elliptic_arc
aim72 B_Spline_Curve_With_Knots with curve_form = polyline_form (see 6.21.2)
aim73 B_Spline_Curve_With_Knots with curve_form = parabolic_arc
aim74 B_Spline_Curve_With_Knots with curve_form = circular_arc
aim75 B_Spline_Curve_With_Knots with curve_form = unspecified (see 6.37.2, 6.38.2)
aim76 B_Spline_Curve_With_Knots with curve_form = hyperbolic_arc
aim77 B_Spline_Curve_With_Knots with closed_curve = TRUE
aim78 B_Spline_Curve_With_Knots with closed_curve = FALSE (see 6.21.2)
aim79 B_Spline_Curve_With_Knots with closed_curve = UNKNOWN (see 6.37.2, 6.38.2)
aim80 B_Spline_Curve_With_Knots with self_intersect = TRUE
aim81 B_Spline_Curve_With_Knots with self_intersect = FALSE (see 6.21.2)
aim82 B_Spline_Curve_With_Knots with self_intersect = UNKNOWN (see 6.37.2, 6.38.2)
aim83 B_Spline_Curve_With_Knots with knot_multiplicities of many elements (see 6.21.2, 6.37.2, 6.38.2)
aim84 B_Spline_Curve_With_Knots with knots of many elements (see 6.21.2, 6.37.2, 6.38.2)
aim85 B_Spline_Curve_With_Knots with knot_spec = uniform_knots
aim86 B_Spline_Curve_With_Knots with knot_spec = quasi_uniform_knots
aim87 B_Spline_Curve_With_Knots with knot_spec = piecewise_bezier_knots
aim88 B_Spline_Curve_With_Knots with knot_spec = unspecified (see 6.21.2, 6.37.2, 6.38.2)

4.2.26 B_Spline_Surface

aim89 B_Spline_Surface as (Rational_B_Spline_Surface AND Bezier_Surface)
aim90 B_Spline_Surface as (Rational_B_Spline_Surface AND B_Spline_Surface_With_Knots)
aim91 B_Spline_Surface as (Rational_B_Spline_Surface AND Quasi_Uniform_Surface)
aim92 B_Spline_Surface as (Rational_B_Spline_Surface AND Uniform_Surface)

4.2.27 B_Spline_Surface_With_Knots

aim93 B_Spline_Surface_With_Knots (see 6.37.2, 6.38.2)
aim94 B_Spline_Surface_With_Knots with control_points_list of many elements (see 6.37.2, 6.38.2)
aim95 B_Spline_Surface_With_Knots with surface_form = surf_of_linear_extrusion
aim96 B_Spline_Surface_With_Knots with surface_form = plane_surf
aim97 B_Spline_Surface_With_Knots with surface_form = generalised_cone
aim98 B_Spline_Surface_With_Knots with surface_form = toroidal_surf
aim99 B_Spline_Surface_With_Knots with surface_form = conical_surf
aim100 B_Spline_Surface_With_Knots with surface_form = spherical_surf
aim101 B_Spline_Surface_With_Knots with surface_form = unspecified (see 6.37.2, 6.38.2)
aim102 B_Spline_Surface_With_Knots with surface_form = ruled_surf
aim103 B_Spline_Surface_With_Knots with surface_form = surf_of_revolution
aim104 B_Spline_Surface_With_Knots with surface_form = cylindrical_surf
aim105 B_Spline_Surface_With_Knots with surface_form = quadric_surf
aim106 B_Spline_Surface_With_Knots with u_closed = TRUE
aim107 B_Spline_Surface_With_Knots with u_closed = FALSE
aim108 B_Spline_Surface_With_Knots with u_closed = UNKNOWN (see 6.37.2, 6.38.2)
aim109 B_Spline_Surface_With_Knots with v_closed = TRUE
aim110 B_Spline_Surface_With_Knots with v_closed = FALSE
aim111 B_Spline_Surface_With_Knots with v_closed = UNKNOWN (see 6.37.2, 6.38.2)

aim112 B_Spline_Surface_With_Knots with self_intersect = TRUE
 aim113 B_Spline_Surface_With_Knots with self_intersect = FALSE
 aim114 B_Spline_Surface_With_Knots with self_intersect = UNKNOWN (see 6.37.2, 6.38.2)
 aim115 B_Spline_Surface_With_Knots with u_multiplicities of many elements (see 6.37.2, 6.38.2)
 aim116 B_Spline_Surface_With_Knots with v_multiplicities of many elements (see 6.37.2, 6.38.2)
 aim117 B_Spline_Surface_With_Knots with u_knots of many elements (see 6.37.2, 6.38.2)
 aim118 B_Spline_Surface_With_Knots with v_knots of many elements (see 6.37.2, 6.38.2)
 aim119 B_Spline_Surface_With_Knots with knot_spec = uniform_knots
 aim120 B_Spline_Surface_With_Knots with knot_spec = quasi_uniform_knots
 aim121 B_Spline_Surface_With_Knots with knot_spec = piecewise_bezier_knots
 aim122 B_Spline_Surface_With_Knots with knot_spec = unspecified (see 6.37.2, 6.38.2)

4.2.28 Bezier_Curve

aim123 Bezier_Curve
 aim124 Bezier_Curve with control_points_list of many elements
 aim125 Bezier_Curve with curve_form = elliptic_arc
 aim126 Bezier_Curve with curve_form = polyline_form
 aim127 Bezier_Curve with curve_form = parabolic_arc
 aim128 Bezier_Curve with curve_form = circular_arc
 aim129 Bezier_Curve with curve_form = unspecified
 aim130 Bezier_Curve with curve_form = hyperbolic_arc
 aim131 Bezier_Curve with closed_curve = TRUE
 aim132 Bezier_Curve with closed_curve = FALSE
 aim133 Bezier_Curve with closed_curve = UNKNOWN
 aim134 Bezier_Curve with self_intersect = TRUE
 aim135 Bezier_Curve with self_intersect = FALSE
 aim136 Bezier_Curve with self_intersect = UNKNOWN

4.2.29 Bezier_Surface

aim137 Bezier_Surface
 aim138 Bezier_Surface with control_points_list of many elements
 aim139 Bezier_Surface with surface_form = surf_of_linear_extrusion
 aim140 Bezier_Surface with surface_form = plane_surf
 aim141 Bezier_Surface with surface_form = generalised_cone
 aim142 Bezier_Surface with surface_form = toroidal_surf
 aim143 Bezier_Surface with surface_form = conical_surf
 aim144 Bezier_Surface with surface_form = spherical_surf
 aim145 Bezier_Surface with surface_form = unspecified
 aim146 Bezier_Surface with surface_form = ruled_surf
 aim147 Bezier_Surface with surface_form = surf_of_revolution
 aim148 Bezier_Surface with surface_form = cylindrical_surf
 aim149 Bezier_Surface with surface_form = quadric_surf
 aim150 Bezier_Surface with u_closed = TRUE
 aim151 Bezier_Surface with u_closed = FALSE
 aim152 Bezier_Surface with u_closed = UNKNOWN
 aim153 Bezier_Surface with v_closed = TRUE

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aim154 Bezier_Surface with v_closed = FALSE
aim155 Bezier_Surface with v_closed = UNKNOWN
aim156 Bezier_Surface with self_intersect = TRUE
aim157 Bezier_Surface with self_intersect = FALSE
aim158 Bezier_Surface with self_intersect = UNKNOWN

4.2.30 Boundary_Curve

aim159 Boundary_Curve (see 6.23.2)
aim160 Boundary_Curve with segments of one element (see 6.23.2)
aim161 Boundary_Curve with segments of many elements
aim162 Boundary_Curve with self_intersect = TRUE
aim163 Boundary_Curve with self_intersect = FALSE
aim164 Boundary_Curve with self_intersect = UNKNOWN (see 6.23.2)

4.2.31 Brep_With_Voids

aim165 Brep_With_Voids (see 6.30.2, 6.39.2)
aim166 Brep_With_Voids with voids of one element (see 6.30.2, 6.39.2)
aim167 Brep_With_Voids with voids of many elements

4.2.32 Calendar_Date

aim168 Calendar_Date (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.33 Cartesian_Point

aim169 Cartesian_Point (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim170 Cartesian_Point with coordinates of one element
aim171 Cartesian_Point with coordinates of many elements (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.34 Cartesian_Transformation_Operator_3d

aim172 Cartesian_Transformation_Operator_3d
aim173 Cartesian_Transformation_Operator_3d with axis1
aim174 Cartesian_Transformation_Operator_3d with axis1 not present
aim175 Cartesian_Transformation_Operator_3d with axis2
aim176 Cartesian_Transformation_Operator_3d with axis2 not present
aim177 Cartesian_Transformation_Operator_3d with scale
aim178 Cartesian_Transformation_Operator_3d with scale not present
aim179 Cartesian_Transformation_Operator_3d with axis3
aim180 Cartesian_Transformation_Operator_3d with axis3 not present

4.2.35 c_Design_Approval

aim181 Cc_Design_Approval (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim182 Cc_Design_Approval with items of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim183 Cc_Design_Approval with items of many elements (see 6.40.2)

aim184 Cc_Design_Approval with items as Product_Definition_Formation (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim185 Cc_Design_Approval with items as Product_Definition (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim186 Cc_Design_Approval with items as Configuration_Effectivity (see 6.18.2, 6.19.2, 6.20.2)

aim187 Cc_Design_Approval with items as Configuration_Item (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

aim188 Cc_Design_Approval with items as Security_Classification (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim189 Cc_Design_Approval with items as Change_Request (see 6.7.2)

aim190 Cc_Design_Approval with items as Change (see 6.7.2)

aim191 Cc_Design_Approval with items as Start_Request (see 6.6.2)

aim192 Cc_Design_Approval with items as Start_Work (see 6.6.2)

aim193 Cc_Design_Approval with items as Certification (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

aim194 Cc_Design_Approval with items as Contract (see 6.4.2, 6.5.2, 6.9.2)

4.2.36 Cc_Design_Certification

aim195 Cc_Design_Certification (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

aim196 Cc_Design_Certification with items of one element (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

aim197 Cc_Design_Certification with items of many elements

aim198 Cc_Design_Certification with items as Supplied_Part_Relationship (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.37 Cc_Design_Contract

aim199 Cc_Design_Contract (see 6.4.2, 6.5.2, 6.9.2)

aim200 Cc_Design_Contract with items of one element (see 6.4.2, 6.5.2, 6.9.2)

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aim201 Cc_Design_Contract with items of many elements

aim202 Cc_Design_Contract with items as Product_Definition_Formation (see 6.4.2, 6.5.2, 6.9.2)

4.2.38 Cc_Design_Date_And_Time_Assignment

aim203 Cc_Design_Date_And_Time_Assignment (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim204 Cc_Design_Date_And_Time_Assignment with items of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim205 Cc_Design_Date_And_Time_Assignment with items of many elements (see 6.40.2)

aim206 Cc_Design_Date_And_Time_Assignment with items as Product_Definition (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim207 Cc_Design_Date_And_Time_Assignment with items as Change_Request (see 6.7.2)

aim208 Cc_Design_Date_And_Time_Assignment with items as Start_Request (see 6.6.2)

aim209 Cc_Design_Date_And_Time_Assignment with items as Change (see 6.7.2)

aim210 Cc_Design_Date_And_Time_Assignment with items as Start_Work (see 6.6.2)

aim211 Cc_Design_Date_And_Time_Assignment with items as Approval_Person_Organization

aim212 Cc_Design_Date_And_Time_Assignment with items as Contract

aim213 Cc_Design_Date_And_Time_Assignment with items as Security_Classification (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim214 Cc_Design_Date_And_Time_Assignment with items as Certification (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.39 Cc_Design_Person_And_Organization_Assignment

aim215 Cc_Design_Person_And_Organization_Assignment (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim216 Cc_Design_Person_And_Organization_Assignment with items of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim217 Cc_Design_Person_And_Organization_Assignment with items of many elements (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.40.2)

aim218 Cc_Design_Person_And_Organization_Assignment with items as Change

aim219 Cc_Design_Person_And_Organization_Assignment with items as Start_Work

aim220 Cc_Design_Person_And_Organization_Assignment with items as Change_Request (see 6.7.2)

aim221 Cc_Design_Person_And_Organization_Assignment with items as Start_Request (see 6.6.2)

aim222 Cc_Design_Person_And_Organization_Assignment with items as Configuration_Item (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

aim223 Cc_Design_Person_And_Organization_Assignment with items as Product (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim224 Cc_Design_Person_And_Organization_Assignment with items as Product_Definition_Formation (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim225 Cc_Design_Person_And_Organization_Assignment with items as Product_Definition (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim226 Cc_Design_Person_And_Organization_Assignment with items as Contract (see 6.4.2, 6.5.2, 6.9.2)

aim227 Cc_Design_Person_And_Organization_Assignment with items as Security_Classification (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.40 Cc_Design_Security_Classification

aim228 Cc_Design_Security_Classification (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim229 Cc_Design_Security_Classification with items of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim230 Cc_Design_Security_Classification with items of many elements (see 6.40.2)

aim231 Cc_Design_Security_Classification with items as Product_Definition_Formation (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim232 Cc_Design_Security_Classification with items as Assembly_Component_Usage (see 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3, 6.40.2)

4.2.41 Cc_Design_Specification_Reference

aim233 Cc_Design_Specification_Reference (see 6.8.2, 6.9.2)

aim234 Cc_Design_Specification_Reference with items of one element (see 6.8.2, 6.9.2)

aim235 Cc_Design_Specification_Reference with items of many elements

aim236 Cc_Design_Specification_Reference with items as Product_Definition (see 6.8.2, 6.9.2)

aim237 Cc_Design_Specification_Reference with items as Shape_Aspect

4.2.42 Certification

ISO/TR 10303-303(E)

aim238 Certification (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.43 Certification_Type

aim239 Certification_Type (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.44 Change

aim240 Change (see 6.7.2)

aim241 Change with items of one element (see 6.7.2)

aim242 Change with items of many elements
aim243 Change with items as Product_Definition_Formation (see 6.7.2)

4.2.45 Change_Request

aim244 Change_Request (see 6.7.2)

aim245 Change_Request with items of one element (see 6.7.2)

aim246 Change_Request with items of many elements

aim247 Change_Request with items as Product_Definition_Formation (see 6.7.2)

4.2.46 Circle

aim248 Circle (see 6.21.2, 6.22.2, 6.23.2, 6.26.2, 6.28.2, 6.31.2, 6.32.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.39.2, 6.40.2)

aim249 Circle with position as Axis2_Placement_3d (see 6.21.2, 6.22.2, 6.23.2, 6.26.2, 6.28.2, 6.31.2, 6.32.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.39.2, 6.40.2)

4.2.47 Closed_Shell

aim250 Closed_Shell (see 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim251 Closed_Shell with cfs_faces of one element (see 6.39.2)

aim252 Closed_Shell with cfs_faces of many elements (see 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.48 Composite_Curve

aim253 Composite_Curve (see 6.22.2)

aim254 Composite_Curve with segments of one element

aim255 Composite_Curve with segments of many elements (see 6.22.2)

aim256 Composite_Curve with self_intersect = TRUE

aim257 Composite_Curve with self_intersect = FALSE (see 6.22.2)

aim258 Composite_Curve with self_intersect = UNKNOWN

4.2.49 Composite_Curve_On_Surface

aim259 Composite_Curve_On_Surface
 aim260 Composite_Curve_On_Surface with segments of one element
 aim261 Composite_Curve_On_Surface with segments of many elements
 aim262 Composite_Curve_On_Surface with self_intersect = TRUE
 aim263 Composite_Curve_On_Surface with self_intersect = FALSE
 aim264 Composite_Curve_On_Surface with self_intersect = UNKNOWN

4.2.50 Composite_Curve_Segment

aim265 Composite_Curve_Segment (see 6.22.2, 6.23.2)
 aim266 Composite_Curve_Segment with transition = discontinuous (see 6.22.2)
 aim267 Composite_Curve_Segment with transition = cont_same_gradient_same_curvature (see 6.22.2)
 aim268 Composite_Curve_Segment with transition = cont_same_gradient (see 6.22.2)
 aim269 Composite_Curve_Segment with transition = continuous (see 6.22.2, 6.23.2)
 aim270 Composite_Curve_Segment with same_sense = TRUE (see 6.22.2, 6.23.2)
 aim271 Composite_Curve_Segment with same_sense = FALSE (see 6.22.2)

4.2.51 Configuration_Design

aim272 Configuration_Design (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.52 Configuration_Effectivity

aim273 Configuration_Effectivity (see 6.18.2, 6.19.2, 6.20.2)

4.2.53 Configuration_Item

aim274 Configuration_Item (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)
 aim275 Configuration_Item with description
 aim276 Configuration_Item with description not present (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)
 aim277 Configuration_Item with purpose (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)
 aim278 Configuration_Item with purpose not present

4.2.54 Conical_Surface

aim279 Conical_Surface (see 6.23.2)

4.2.55 Connected_Edge_Set

aim280 Connected_Edge_Set (see 6.27.2)
 aim281 Connected_Edge_Set with ces_edges of one element
 aim282 Connected_Edge_Set with ces_edges of many elements (see 6.27.2)

4.2.56 Connected_Face_Set

aim283 Connected_Face_Set

aim284 Connected_Face_Set with cfs_faces of one elemen

taim285 Connected_Face_Set with cfs_faces of many elements

4.2.57 Context_Dependent_Shape_Representation

aim286 Context_Dependent_Shape_Representation

4.2.58 Context_Dependent_Unit

aim287 Context_Dependent_Unit (see 6.15.2, 6.16.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3)

4.2.59 Contract

aim288 Contract (see 6.4.2, 6.5.2, 6.9.2)

4.2.60 Contract_Type

aim289 Contract_Type (see 6.4.2, 6.5.2, 6.9.2)

4.2.61 Conversion_Based_Unit

aim290 Conversion_Based_Unit(see 6.21.2, 6.23.2, 6.27.2, 6.29.2, 6.30.2, 6.37.2, 6.38.2)

4.2.62 Coordinated_Universal_Time_Offset

aim291 Coordinated_Universal_Time_Offset (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim292 Coordinated_Universal_Time_Offset with minute_offset (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim293 Coordinated_Universal_Time_Offset with minute_offset not present (see 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.33.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim294 Coordinated_Universal_Time_Offset with sense = ahead (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim295 Coordinated_Universal_Time_Offset with sense = behind (see 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.33.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.63 Curve_Bounded_Surface

aim296 Curve_Bounded_Surface (see 6.23.2)

aim297 Curve_Bounded_Surface with boundaries of one element (see 6.23.2)
aim298 Curve_Bounded_Surface with boundaries of many elements
aim299 Curve_Bounded_Surface with implicit_outer = TRUE
aim300 Curve_Bounded_Surface with implicit_outer = FALSE (see 6.23.2)

4.2.64 Curve_Replica

aim301 Curve_Replica

4.2.65 Cylindrical_Surface

aim302 Cylindrical_Surface

4.2.66 Date

aim303 Date

4.2.67 Date_And_Time

aim304 Date_And_Time (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.68 Date_Time_Role

aim305 Date_Time_Role (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.69 Dated_Effectivity

aim306 Dated_Effectivity (see 6.18.2)
aim307 Dated_Effectivity with effectivity_end_date (see 6.18.2)
aim308 Dated_Effectivity with effectivity_end_date not present

4.2.70 Definitional_Representation

aim309 Definitional_Representation
aim310 Definitional_Representation with items of one element
aim311 Definitional_Representation with items of many elements

4.2.71 Degenerate_Pcurve

aim312 Degenerate_Pcurve

4.2.72 Design_Context

aim313 Design_Context (see 6.1.2, 6.1.3, 6.2.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.73 Design_Make_From_Relationship

aim314 Design_Make_From_Relationship (see 6.12.2)

4.2.74 Dimensional_Exponents

aim315 Dimensional_Exponents (see 6.15.2, 6.16.2, 6.19.2, 6.20.2, 6.21.2, 6.23.2, 6.27.2, 6.29.2, 6.30.2, 6.34.2, 6.35.2, 6.35.3, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.75 Directed_Action

aim316 Directed_Action (see 6.6.2, 6.7.2)

4.2.76 Direction

aim317 Direction (see 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim318 Direction with direction_ratios of many elements (see 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.77 Document

aim319 Document (see 6.5.2, 6.8.2, 6.9.2)

4.2.78 Document_Relationship

aim320 Document_Relationship (see 6.9.2)

4.2.79 Document_Type

aim321 Document_Type (see 6.5.2, 6.8.2, 6.9.2)

4.2.80 Document_Usage_Constraint

aim322 Document_Usage_Constraint (see 6.9.2)

4.2.81 Document_With_Class

aim323 Document_With_Class (see 6.8.2)

4.2.82 Edge_Based_Wireframe_Model

aim324 Edge_Based_Wireframe_Model (see 6.27.2)
 aim325 Edge_Based_Wireframe_Model with ebwm_boundary of one element
 aim326 Edge_Based_Wireframe_Model with ebwm_boundary of many elements (see 6.27.2)

4.2.83 Edge_Based_Wireframe_Shape_Representation

aim327 Edge_Based_Wireframe_Shape_Representation (see 6.27.2)
 aim328 Edge_Based_Wireframe_Shape_Representation with items of one element (see 6.27.2)
 aim329 Edge_Based_Wireframe_Shape_Representation with items of many elements

4.2.84 Edge_Curve

aim330 Edge_Curve (see 6.26.2, 6.27.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim331 Edge_Curve with same_sense = TRUE (see 6.26.2, 6.27.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim332 Edge_Curve with same_sense = FALSE (see 6.26.2, 6.27.2, 6.33.2, 6.36.2)

4.2.85 Edge_Loop

aim333 Edge_Loop (see 6.26.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim334 Edge_Loop with edge_list of one element (see 6.28.2, 6.31.2, 6.32.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.39.2, 6.40.2)
 aim335 Edge_Loop with edge_list of many elements (see 6.26.2, 6.28.2, 6.33.2, 6.37.2, 6.38.2)

4.2.86 Effectivity

aim336 Effectivity as (Configuration_Effectivity AND Dated_Effectivity) (see 6.18.2)
 aim337 Effectivity as (Configuration_Effectivity AND Lot_Effectivity) (see 6.20.2)
 aim338 Effectivity as (Configuration_Effectivity AND Serial_Numbered_Effectivity) (see 6.19.2)

4.2.87 Ellipse

aim339 Ellipse (see 6.33.2)
 aim340 Ellipse with position as Axis2_Placement_3d (see 6.33.2)

4.2.88 Evaluated_Degenerate_Pcurve

aim341 Evaluated_Degenerate_Pcurve

4.2.89 Executed_Action

aim342 Executed_Action

4.2.90 Face_Bound

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aim343 Face_Bound (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.39.2, 6.40.2)

aim344 Face_Bound with orientation = TRUE (see 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.39.2, 6.40.2)

aim345 Face_Bound with orientation = FALSE (see 6.31.2, 6.32.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.40.2)

4.2.91 Face_Outer_Bound

aim346 Face_Outer_Bound (see 6.29.2, 6.30.2, 6.37.2, 6.38.2)

aim347 Face_Outer_Bound with orientation = TRUE (see 6.29.2, 6.30.2, 6.37.2, 6.38.2)

aim348 Face_Outer_Bound with orientation = FALSE (see 6.29.2, 6.30.2, 6.37.2, 6.38.2)

4.2.92 Face_Surface

aim349 Face_Surface (see 6.29.2, 6.30.2)

aim350 Face_Surface with bounds of one element (see 6.29.2, 6.30.2)

aim351 Face_Surface with bounds of many elements

aim352 Face_Surface with same_sense = TRUE (see 6.29.2, 6.30.2)

aim353 Face_Surface with same_sense = FALSE (see 6.29.2, 6.30.2)

4.2.93 Faceted_Brep

aim354 Faceted_Brep (see 6.29.2, 6.30.2)

4.2.94 Faceted_Brep_Shape_Representation

aim355 Faceted_Brep_Shape_Representation (see 6.29.2, 6.30.2)

aim356 Faceted_Brep_Shape_Representation with items of one element (see 6.29.2, 6.30.2)

aim357 Faceted_Brep_Shape_Representation with items of many elements

4.2.95 Functionally_Defined_Transformation

aim358 Functionally_Defined_Transformation

4.2.96 Geometric_Curve_Set

aim359 Geometric_Curve_Set (see 6.21.2, 6.24.2, 6.25.2)

aim360 Geometric_Curve_Set with elements of one element

aim361 Geometric_Curve_Set with elements of many elements (see 6.21.2, 6.24.2, 6.25.2)

aim362 Geometric_Curve_Set with elements as Point

aim363 Geometric_Curve_Set with elements as Curve (see 6.21.2, 6.24.2, 6.25.2)

4.2.97 Geometric_Representation_Context

aim364 Geometric_Representation_Context (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.98 Geometric_Set

aim365 Geometric_Set (see 6.22.2, 6.23.2)
 aim366 Geometric_Set with elements of one element (see 6.22.2)
 aim367 Geometric_Set with elements of many elements (see 6.23.2)
 aim368 Geometric_Set with elements as Point
 aim369 Geometric_Set with elements as Curve
 aim370 Geometric_Set with elements as Surface (see 6.22.2, 6.23.2)

4.2.99 Geometrically_Bounded_Surface_Shape_Representation

aim371 Geometrically_Bounded_Surface_Shape_Representation (see 6.22.2, 6.23.2)
 aim372 Geometrically_Bounded_Surface_Shape_Representation with items of one element (see 6.22.2, 6.23.2)
 aim373 Geometrically_Bounded_Surface_Shape_Representation with items of many elements

4.2.100 Geometrically_Bounded_Wireframe_Shape_Representation

aim374 Geometrically_Bounded_Wireframe_Shape_Representation (see 6.21.2, 6.24.2, 6.25.2)
 aim375 Geometrically_Bounded_Wireframe_Shape_Representation with items of one element (see 6.21.2, 6.24.2, 6.25.2)
 aim376 Geometrically_Bounded_Wireframe_Shape_Representation with items of many elements

4.2.101 Global_Uncertainty_Assigned_Context

aim377 Global_Uncertainty_Assigned_Context (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim378 Global_Uncertainty_Assigned_Context with uncertainty of one element (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim379 Global_Uncertainty_Assigned_Context with uncertainty of many elements

4.2.102 Global_Unit_Assigned_Context

aim380 Global_Unit_Assigned_Context (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim381 Global_Unit_Assigned_Context with units of one element
 aim382 Global_Unit_Assigned_Context with units of many elements (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim383 Global_Unit_Assigned_Context with units as Named_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

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4.2.103 Hyperbola

aim384 Hyperbola

aim385 Hyperbola with position as Axis2_Placement_3d

4.2.104 Intersection_Curve

aim386 Intersection_Curve

aim387 Intersection_Curve with associated_geometry of one element

aim388 Intersection_Curve with associated_geometry of many elements

aim389 Intersection_Curve with associated_geometry as Pcurve

aim390 Intersection_Curve with associated_geometry as Surface

aim391 Intersection_Curve with master_representation = pcurve_s2

aim392 Intersection_Curve with master_representation = pcurve_s1

aim393 Intersection_Curve with master_representation = curve_3d

4.2.105 Item_Defined_Transformation

aim394 Item_Defined_Transformation

4.2.106 Length_Measure_With_Unit

aim395 Length_Measure_With_Unit (see 6.21.2, 6.23.2, 6.27.2, 6.29.2, 6.30.2)

aim396 Length_Measure_With_Unit with value_component as Length_Measure

aim397 Length_Measure_With_Unit with value_component as Positive_Length_Measure (see 6.21.2, 6.23.2, 6.27.2, 6.29.2, 6.30.2)

4.2.107 Length_Unit

aim398 Length_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.108 Line

aim399 Line (see 6.21.2, 6.22.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.33.2)

4.2.109 Local_Time

aim400 Local_Time (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim401 Local_Time with minute_component (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim402 Local_Time with minute_component not present (see 6.1.3, 6.5.2, 6.6.2, 6.7.2, 6.18.2, 6.24.2, 6.32.2, 6.34.2)

aim403 Local_Time with second_component (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim404 Local_Time with second_component not present (see 6.1.3, 6.5.2, 6.6.2, 6.7.2, 6.18.2, 6.19.2, 6.20.2, 6.24.2, 6.32.2, 6.34.2)

4.2.110 Lot_Effectivity

aim405 Lot_Effectivity (see 6.20.2)

4.2.111 Manifold_Solid_Brep

aim406 Manifold_Solid_Brep (see 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.40.2)

4.2.112 Manifold_Surface_Shape_Representation

aim407 Manifold_Surface_Shape_Representation (see 6.28.2)

aim408 Manifold_Surface_Shape_Representation with items of one element (see 6.28.2)

aim409 Manifold_Surface_Shape_Representation with items of many elements

4.2.113 Mapped_Item

aim410 Mapped_Item (see 6.35.2, 6.40.2)

4.2.114 Mass_Measure_With_Unit

aim411 Mass_Measure_With_Unit

aim412 Mass_Measure_With_Unit with value_component as Mass_Measure

4.2.115 Mass_Unit

aim413 Mass_Unit

4.2.116 Measure_With_Unit

aim414 Measure_With_Unit (see 6.15.2, 6.16.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3)

aim415 Measure_With_Unit with value_component as Area_Measure

aim416 Measure_With_Unit with value_component as Context_Dependent_Measure

aim417 Measure_With_Unit with value_component as Count_Measure (see 6.16.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3)

aim418 Measure_With_Unit with value_component as Descriptive_Measure (see 6.15.2)

aim419 Measure_With_Unit with value_component as Length_Measure

aim420 Measure_With_Unit with value_component as Mass_Measure

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aim421 Measure_With_Unit with value_component as Plane_Angle_Measure
aim422 Measure_With_Unit with value_component as Parameter_Value
aim423 Measure_With_Unit with value_component as Positive_Length_Measure
aim424 Measure_With_Unit with value_component as Positive_Plane_Angle_Measure
aim425 Measure_With_Unit with value_component as Solid_Angle_Measure
aim426 Measure_With_Unit with value_component as Volume_Measure
aim427 Measure_With_Unit with unit_component as Named_Unit (see 6.15.2, 6.16.2, 6.19.2, 6.20.2, 6.35.2, 6.35.3)

4.2.117 Mechanical_Context

aim428 Mechanical_Context (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.118 Named_Unit

aim429 Named_Unit as (Length_Unit AND Si_Unit) (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim430 Named_Unit as (Length_Unit AND Conversion_Based_Unit) (see 6.21.2, 6.23.2, 6.27.2, 6.29.2, 6.30.2)
aim431 Named_Unit as (Plane_Angle_Unit AND Si_Unit) (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim432 Named_Unit as (Plane_Angle_Unit AND Conversion_Based_Unit) (see 6.23.2, 6.37.2, 6.38.2, 6.39.2)
aim433 Named_Unit as (Solid_Angle_Unit AND Si_Unit) (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim434 Named_Unit as (Solid_Angle_Unit AND Conversion_Based_Unit)
aim435 Named_Unit as (Area_Unit AND Si_Unit)
aim436 Named_Unit as (Area_Unit AND Conversion_Based_Unit)
aim437 Named_Unit as (Mass_Unit AND Si_Unit)
aim438 Named_Unit as (Mass_Unit AND Conversion_Based_Unit)
aim439 Named_Unit as (Volume_Unit AND Si_Unit)
aim440 Named_Unit as (Volume_Unit AND Conversion_Based_Unit)

4.2.119 Next_Assembly_Usage_Occurrence

aim441 Next_Assembly_Usage_Occurrence (see 6.15.2, 6.16.2, 6.19.2, 6.19.2, 6.35.2, 6.35.2, 6.35.3, 6.35.3, 6.40.2)
aim442 Next_Assembly_Usage_Occurrence with reference_designator (see 6.15.2, 6.16.2, 6.19.2, 6.35.2, 6.35.3, 6.40.2)
aim443 Next_Assembly_Usage_Occurrence with reference_designator not present (see 6.19.2, 6.35.2, 6.35.3, 6.40.2)

4.2.120 Offset_Curve_3d

aim444 Offset_Curve_3d
 aim445 Offset_Curve_3d with self_intersect = TRUE
 aim446 Offset_Curve_3d with self_intersect = FALSE
 aim447 Offset_Curve_3d with self_intersect = UNKNOWN

4.2.121 Offset_Surface

aim448 Offset_Surface
 aim449 Offset_Surface with self_intersect = TRUE
 aim450 Offset_Surface with self_intersect = FALSE
 aim451 Offset_Surface with self_intersect = UNKNOWN

4.2.122 Open_Shell

aim452 Open_Shell (see 6.28.2)
 aim453 Open_Shell with cfs_faces of one element
 aim454 Open_Shell with cfs_faces of many elements (see 6.28.2)

4.2.123 Ordinal_Date

aim455 Ordinal_Date (see 6.2.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

4.2.124 Organization

aim456 Organization (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim457 Organization with id (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim458 Organization with id not present (see 6.2.2, 6.22.2, 6.25.2, 6.30.2, 6.33.2, 6.36.2)

4.2.125 Organization_Relationship

aim459 Organization_Relationship (see 6.18.2)

4.2.126 Organizational_Address

aim460 Organizational_Address (see 6.4.2, 6.5.2, 6.9.2)
 aim461 Organizational_Address with internal_location
 aim462 Organizational_Address with internal_location not present (see 6.4.2, 6.5.2, 6.9.2)
 aim463 Organizational_Address with street_number (see 6.4.2, 6.5.2, 6.9.2)
 aim464 Organizational_Address with street_number not present
 aim465 Organizational_Address with street (see 6.4.2, 6.5.2, 6.9.2)

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aim466 Organizational_Address with street not present
aim467 Organizational_Address with postal_box (see 6.5.2)
aim468 Organizational_Address with postal_box not present (see 6.4.2, 6.9.2)
aim469 Organizational_Address with town (see 6.4.2, 6.5.2, 6.9.2)
aim470 Organizational_Address with town not present
aim471 Organizational_Address with region (see 6.4.2, 6.5.2, 6.9.2)
aim472 Organizational_Address with region not present
aim473 Organizational_Address with postal_code (see 6.4.2, 6.5.2, 6.9.2)
aim474 Organizational_Address with postal_code not present
aim475 Organizational_Address with country (see 6.4.2, 6.5.2, 6.9.2)
aim476 Organizational_Address with country not present
aim477 Organizational_Address with facsimile_number (see 6.4.2, 6.5.2, 6.9.2)
aim478 Organizational_Address with facsimile_number not present
aim479 Organizational_Address with telephone_number (see 6.4.2, 6.5.2, 6.9.2)
aim480 Organizational_Address with telephone_number not present
aim481 Organizational_Address with electronic_mail_address
aim482 Organizational_Address with electronic_mail_address not present (see 6.4.2, 6.5.2, 6.9.2)
aim483 Organizational_Address with telex_number
aim484 Organizational_Address with telex_number not present (see 6.4.2, 6.5.2, 6.9.2)
aim485 Organizational_Address with organizations of one element (see 6.4.2, 6.5.2, 6.9.2)
aim486 Organizational_Address with organizations of many elements

4.2.127 Organizational_Project

aim487 Organizational_Project
aim488 Organizational_Project with responsible_organizations of one element
aim489 Organizational_Project with responsible_organizations of many elements

4.2.128 Oriented_Closed_Shell

aim490 Oriented_Closed_Shell (see 6.30.2, 6.39.2)
aim491 Oriented_Closed_Shell with cfs_faces of one element
aim492 Oriented_Closed_Shell with cfs_faces of many elements
aim493 Oriented_Closed_Shell with orientation = TRUE
aim494 Oriented_Closed_Shell with orientation = FALSE (see 6.30.2, 6.39.2)

4.2.129 Oriented_Edge

aim495 Oriented_Edge (see 6.26.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim496 Oriented_Edge with orientation = TRUE (see 6.26.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
aim497 Oriented_Edge with orientation = FALSE (see 6.26.2, 6.28.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.130 Oriented_Face

aim498 Oriented_Face

aim499 Oriented_Face with bounds of one element
 aim500 Oriented_Face with bounds of many elements
 aim501 Oriented_Face with orientation = TRUE
 aim502 Oriented_Face with orientation = FALSE

4.2.131 Oriented_Open_Shell

aim503 Oriented_Open_Shell
 aim504 Oriented_Open_Shell with cfs_faces of one element
 aim505 Oriented_Open_Shell with cfs_faces of many elements
 aim506 Oriented_Open_Shell with orientation = TRUE
 aim507 Oriented_Open_Shell with orientation = FALSE

4.2.132 Outer_Boundary_Curve

aim508 Outer_Boundary_Curve
 aim509 Outer_Boundary_Curve with segments of one element
 aim510 Outer_Boundary_Curve with segments of many elements
 aim511 Outer_Boundary_Curve with self_intersect = TRUE
 aim512 Outer_Boundary_Curve with self_intersect = FALSE
 aim513 Outer_Boundary_Curve with self_intersect = UNKNOWN

4.2.133 Parabola

aim514 Parabola (see 6.25.2)
 aim515 Parabola with position as Axis2_Placement_3d (see 6.25.2)

4.2.134 Parametric_Representation_Context

aim516 Parametric_Representation_Context

4.2.135 Pcurve

aim517 Pcurve

4.2.136 Person

aim518 Person (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim519 Person with last_name (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim520 Person with last_name not present (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

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aim521 Person with first_name (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim522 Person with first_name not present (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim523 Person with middle_names of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim524 Person with middle_names of many elements (see 6.1.3, 6.5.2, 6.24.2, 6.32.2, 6.34.2)

aim525 Person with middle_names not present (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim526 Person with prefix_titles of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim527 Person with prefix_titles of many elements (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim528 Person with prefix_titles not present (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim529 Person with suffix_titles of one element (see 6.1.3, 6.5.2, 6.24.2, 6.32.2, 6.34.2)

aim530 Person with suffix_titles of many elements (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim531 Person with suffix_titles not present (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.137 Person_And_Organization

aim532 Person_And_Organization (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.138 Person_And_Organization_Role

aim533 Person_And_Organization_Role (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.139 Personal_Address

aim534 Personal_Address (see 6.4.2, 6.5.2, 6.9.2)

aim535 Personal_Address with internal_location

aim536 Personal_Address with internal_location not present (see 6.4.2, 6.5.2, 6.9.2)
aim537 Personal_Address with street_number (see 6.4.2, 6.5.2, 6.9.2)
aim538 Personal_Address with street_number not present
aim539 Personal_Address with street (see 6.4.2, 6.5.2, 6.9.2)
aim540 Personal_Address with street not present
aim541 Personal_Address with postal_box
aim542 Personal_Address with postal_box not present (see 6.4.2, 6.5.2, 6.9.2)
aim543 Personal_Address with town (see 6.4.2, 6.5.2, 6.9.2)
aim544 Personal_Address with town not present
aim545 Personal_Address with region (see 6.4.2, 6.5.2, 6.9.2)
aim546 Personal_Address with region not present
aim547 Personal_Address with postal_code (see 6.4.2, 6.5.2, 6.9.2)
aim548 Personal_Address with postal_code not present
aim549 Personal_Address with country (see 6.4.2, 6.5.2, 6.9.2)
aim550 Personal_Address with country not present
aim551 Personal_Address with facsimile_number
aim552 Personal_Address with facsimile_number not present (see 6.4.2, 6.5.2, 6.9.2)
aim553 Personal_Address with telephone_number (see 6.4.2, 6.5.2, 6.9.2)
aim554 Personal_Address with telephone_number not present
aim555 Personal_Address with electronic_mail_address
aim556 Personal_Address with electronic_mail_address not present (see 6.4.2, 6.5.2, 6.9.2)
aim557 Personal_Address with telex_number
aim558 Personal_Address with telex_number not present (see 6.4.2, 6.5.2, 6.9.2)
aim559 Personal_Address with people of one element (see 6.4.2, 6.5.2, 6.9.2)
aim560 Personal_Address with people of many elements

4.2.140 Plane

aim561 Plane (see 6.23.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.141 Plane_Angle_Measure_With_Unit

aim562 Plane_Angle_Measure_With_Unit (see 6.23.2, 6.37.2, 6.38.2, 6.39.2)
aim563 Plane_Angle_Measure_With_Unit with value_component as Plane_Angle_Measure (see 6.37.2, 6.38.2, 6.39.2)
aim564 Plane_Angle_Measure_With_Unit with value_component as Positive_Plane_Angle_Measure (see 6.23.2)

4.2.142 Plane_Angle_Unit

aim565 Plane_Angle_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.143 Point_On_Curve

aim566 Point_On_Curve (see 6.27.2)

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4.2.144 Point_On_Surface

aim567 Point_On_Surface

4.2.145 Point_Replica

aim568 Point_Replica

4.2.146 Poly_Loop

aim569 Poly_Loop (see 6.29.2, 6.30.2)

aim570 Poly_Loop with polygon of many elements (see 6.29.2, 6.30.2)

4.2.147 Polyline

aim571 Polyline (see 6.21.2, 6.24.2)

aim572 Polyline with points of many elements (see 6.21.2, 6.24.2)

4.2.148 Product

aim573 Product (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim574 Product with frame_of_reference of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim575 Product with frame_of_reference of many elements

4.2.149 Product_Category

aim576 Product_Category (see 6.2.2, 6.4.2, 6.5.2, 6.9.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

aim577 Product_Category with description (see 6.2.2, 6.4.2, 6.5.2, 6.9.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

aim578 Product_Category with description not present

4.2.150 Product_Category_Relationship

aim579 Product_Category_Relationship (see 6.2.2, 6.4.2, 6.5.2, 6.9.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

4.2.151 Product_Concept

aim580 Product_Concept (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.152 Product_Concept_Context

aim581 Product_Concept_Context (see 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.153 Product_Definition

aim582 Product_Definition (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.154 Product_Definition_Context

aim583 Product_Definition_Context (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.155 Product_Definition_Formation_With_Specified_Source

aim584 Product_Definition_Formation_With_Specified_Source (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim585 Product_Definition_Formation_With_Specified_Source with make_or_buy = bought (see 6.1.2, 6.1.3, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.23.2, 6.24.2, 6.26.2, 6.28.2, 6.29.2, 6.31.2, 6.32.2, 6.34.2, 6.35.2, 6.35.3, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim586 Product_Definition_Formation_With_Specified_Source with make_or_buy = not_known

aim587 Product_Definition_Formation_With_Specified_Source with make_or_buy = made (see 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

4.2.156 Product_Definition_Relationship

aim588 Product_Definition_Relationship (see 6.15.2, 6.16.2, 6.19.2, 6.35.2, 6.35.3)

4.2.157 Product_Definition_Shape

aim589 Product_Definition_Shape (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim590 Product_Definition_Shape with definition as Characterized_Product_Definition (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim591 Product_Definition_Shape with definition as Shape_Definition

4.2.158 Product_Definition_With_Associated_Documents

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aim592 Product_Definition_With_Associated_Documents (see 6.5.2)

aim593 Product_Definition_With_Associated_Documents with documentation_ids of one element (see 6.5.2)

aim594 Product_Definition_With_Associated_Documents with documentation_ids of many elements

4.2.159 Product_Related_Product_Category

aim595 Product_Related_Product_Category (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim596 Product_Related_Product_Category with description (see 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.33.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim597 Product_Related_Product_Category with description not present (see 6.1.3, 6.24.2, 6.32.2, 6.34.2)

aim598 Product_Related_Product_Category with products of one element (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim599 Product_Related_Product_Category with products of many elements

4.2.160 Promissory_Usage_Occurrence

aim600 Promissory_Usage_Occurrence (see 6.14.2, 6.17.2)

aim601 Promissory_Usage_Occurrence with reference_designator

aim602 Promissory_Usage_Occurrence with reference_designator not present (see 6.14.2, 6.17.2)

4.2.161 Property_Definition

aim603 Property_Definition

aim604 Property_Definition with definition as Characterized_Product_Definition

aim605 Property_Definition with definition as Shape_Definition

4.2.162 Property_Definition_Representation

aim606 Property_Definition_Representation

4.2.163 Quantified_Assembly_Component_Usage

aim607 Quantified_Assembly_Component_Usage (see 6.15.2, 6.16.2, 6.19.2, 6.35.2, 6.35.3)

aim608 Quantified_Assembly_Component_Usage with reference_designator (see 6.15.2, 6.16.2, 6.19.2, 6.35.2, 6.35.3)

aim609 Quantified_Assembly_Component_Usage with reference_designator not present

4.2.164 Quasi_Uniform_Curve

aim610 Quasi_Uniform_Curve (see 6.21.2)

aim611 Quasi_Uniform_Curve with control_points_list of many elements (see 6.21.2)
 aim612 Quasi_Uniform_Curve with curve_form = elliptic_arc
 aim613 Quasi_Uniform_Curve with curve_form = polyline_form (see 6.21.2)
 aim614 Quasi_Uniform_Curve with curve_form = parabolic_arc
 aim615 Quasi_Uniform_Curve with curve_form = circular_arc
 aim616 Quasi_Uniform_Curve with curve_form = unspecified (see 6.21.2)
 aim617 Quasi_Uniform_Curve with curve_form = hyperbolic_arc
 aim618 Quasi_Uniform_Curve with closed_curve = TRUE
 aim619 Quasi_Uniform_Curve with closed_curve = FALSE (see 6.21.2)
 aim620 Quasi_Uniform_Curve with closed_curve = UNKNOWN (see 6.21.2)
 aim621 Quasi_Uniform_Curve with self_intersect = TRUE
 aim622 Quasi_Uniform_Curve with self_intersect = FALSE (see 6.21.2)
 aim623 Quasi_Uniform_Curve with self_intersect = UNKNOWN (see 6.21.2)

4.2.165 Quasi_Uniform_Surface

aim624 Quasi_Uniform_Surface
 aim625 Quasi_Uniform_Surface with control_points_list of many elements
 aim626 Quasi_Uniform_Surface with surface_form = surf_of_linear_extrusion
 aim627 Quasi_Uniform_Surface with surface_form = plane_surf
 aim628 Quasi_Uniform_Surface with surface_form = generalised_cone
 aim629 Quasi_Uniform_Surface with surface_form = toroidal_surf
 aim630 Quasi_Uniform_Surface with surface_form = conical_surf
 aim631 Quasi_Uniform_Surface with surface_form = spherical_surf
 aim632 Quasi_Uniform_Surface with surface_form = unspecified
 aim633 Quasi_Uniform_Surface with surface_form = ruled_surf
 aim634 Quasi_Uniform_Surface with surface_form = surf_of_revolution
 aim635 Quasi_Uniform_Surface with surface_form = cylindrical_surf
 aim636 Quasi_Uniform_Surface with surface_form = quadric_surf
 aim637 Quasi_Uniform_Surface with u_closed = TRUE
 aim638 Quasi_Uniform_Surface with u_closed = FALSE
 aim639 Quasi_Uniform_Surface with u_closed = UNKNOWN
 aim640 Quasi_Uniform_Surface with v_closed = TRUE
 aim641 Quasi_Uniform_Surface with v_closed = FALSE
 aim642 Quasi_Uniform_Surface with v_closed = UNKNOWN
 aim643 Quasi_Uniform_Surface with self_intersect = TRUE
 aim644 Quasi_Uniform_Surface with self_intersect = FALSE
 aim645 Quasi_Uniform_Surface with self_intersect = UNKNOWN

4.2.166 Rational_B_Spline_Curve

aim646 Rational_B_Spline_Curve
 aim647 Rational_B_Spline_Curve with control_points_list of many elements
 aim648 Rational_B_Spline_Curve with curve_form = elliptic_arc
 aim649 Rational_B_Spline_Curve with curve_form = polyline_form
 aim650 Rational_B_Spline_Curve with curve_form = parabolic_arc
 aim651 Rational_B_Spline_Curve with curve_form = circular_arc
 aim652 Rational_B_Spline_Curve with curve_form = unspecified

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aim653 Rational_B_Spline_Curve with curve_form = hyperbolic_arc
aim654 Rational_B_Spline_Curve with closed_curve = TRUE
aim655 Rational_B_Spline_Curve with closed_curve = FALSE
aim656 Rational_B_Spline_Curve with closed_curve = UNKNOWN
aim657 Rational_B_Spline_Curve with self_intersect = TRUE
aim658 Rational_B_Spline_Curve with self_intersect = FALSE
aim659 Rational_B_Spline_Curve with self_intersect = UNKNOWN
aim660 Rational_B_Spline_Curve with weights_data of many elements

4.2.167 Rational_B_Spline_Surface

aim661 Rational_B_Spline_Surface
aim662 Rational_B_Spline_Surface with control_points_list of many elements
aim663 Rational_B_Spline_Surface with surface_form = surf_of_linear_extrusion
aim664 Rational_B_Spline_Surface with surface_form = plane_surf
aim665 Rational_B_Spline_Surface with surface_form = generalised_cone
aim666 Rational_B_Spline_Surface with surface_form = toroidal_surf
aim667 Rational_B_Spline_Surface with surface_form = conical_surf
aim668 Rational_B_Spline_Surface with surface_form = spherical_surf
aim669 Rational_B_Spline_Surface with surface_form = unspecified
aim670 Rational_B_Spline_Surface with surface_form = ruled_surf
aim671 Rational_B_Spline_Surface with surface_form = surf_of_revolution
aim672 Rational_B_Spline_Surface with surface_form = cylindrical_surf
aim673 Rational_B_Spline_Surface with surface_form = quadric_surf
aim674 Rational_B_Spline_Surface with u_closed = TRUE
aim675 Rational_B_Spline_Surface with u_closed = FALSE
aim676 Rational_B_Spline_Surface with u_closed = UNKNOWN
aim677 Rational_B_Spline_Surface with v_closed = TRUE
aim678 Rational_B_Spline_Surface with v_closed = FALSE
aim679 Rational_B_Spline_Surface with v_closed = UNKNOWN
aim680 Rational_B_Spline_Surface with self_intersect = TRUE
aim681 Rational_B_Spline_Surface with self_intersect = FALSE
aim682 Rational_B_Spline_Surface with self_intersect = UNKNOWN
aim683 Rational_B_Spline_Surface with weights_data of many elements

4.2.168 Rectangular_Composite_Surface

aim684 Rectangular_Composite_Surface
aim685 Rectangular_Composite_Surface with segments of one element
aim686 Rectangular_Composite_Surface with segments of many elements

4.2.169 Rectangular_Trimmed_Surface

aim687 Rectangular_Trimmed_Surface
aim688 Rectangular_Trimmed_Surface with usense = TRUE
aim689 Rectangular_Trimmed_Surface with usense = FALSE
aim690 Rectangular_Trimmed_Surface with vsense = TRUE
aim691 Rectangular_Trimmed_Surface with vsense = FALSE

4.2.170 Reparametrised_Composite_Curve_Segment

aim692 Reparametrised_Composite_Curve_Segment
 aim693 Reparametrised_Composite_Curve_Segment with transition = discontinuous
 aim694 Reparametrised_Composite_Curve_Segment with transition = cont_same_gradient_same_curvature
 aim695 Reparametrised_Composite_Curve_Segment with transition = cont_same_gradient
 aim696 Reparametrised_Composite_Curve_Segment with transition = continuous
 aim697 Reparametrised_Composite_Curve_Segment with same_sense = TRUE
 aim698 Reparametrised_Composite_Curve_Segment with same_sense = FALSE

4.2.171 Representation_Context

aim699 Representation_Context as (Geometric_Representation_Context AND Global_Unit_Assigned_Context) (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
 aim700 Representation_Context as (Geometric_Representation_Context AND Global_Unit_Assigned_Context AND Global_Uncertainty_Assigned_Context) (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.172 Representation_Map

aim701 Representation_Map (see 6.35.2, 6.40.2)

4.2.173 Representation_Relationship

aim702 Representation_Relationship

4.2.174 Representation_Relationship_With_Transformation

aim703 Representation_Relationship_With_Transformation (see 6.35.3)
 aim704 Representation_Relationship_With_Transformation with transformation_operator as Item_Defined_Transformation (see 6.35.3)
 aim705 Representation_Relationship_With_Transformation with transformation_operator as Functionally_Defined_Transformation

4.2.175 Seam_Curve

aim706 Seam_Curve
 aim707 Seam_Curve with associated_geometry of one element
 aim708 Seam_Curve with associated_geometry of many elements
 aim709 Seam_Curve with associated_geometry as Pcurve
 aim710 Seam_Curve with associated_geometry as Surface
 aim711 Seam_Curve with master_representation = pcurve_s2
 aim712 Seam_Curve with master_representation = pcurve_s1
 aim713 Seam_Curve with master_representation = curve_3d

4.2.176 Security_Classification

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aim714 Security_Classification (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.177 Security_Classification_Level

aim715 Security_Classification_Level (see 6.1.2, 6.1.3, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2, 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.178 Serial_Numbered_Effectivity

aim716 Serial_Numbered_Effectivity (see 6.19.2)
aim717 Serial_Numbered_Effectivity with effectivity_end_id (see 6.19.2)
aim718 Serial_Numbered_Effectivity with effectivity_end_id not present

4.2.179 Shape_Aspect

aim719 Shape_Aspect
aim720 Shape_Aspect with product_definitional = TRUE
aim721 Shape_Aspect with product_definitional = FALSE
aim722 Shape_Aspect with product_definitional = UNKNOWN

4.2.180 Shape_Aspect_Relationship

aim723 Shape_Aspect_Relationship

4.2.181 Shape_Definition_Representation

aim724 Shape_Definition_Representation (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.182 Shape_Representation

aim725 Shape_Representation
aim726 Shape_Representation with items of one element
aim727 Shape_Representation with items of many elements

4.2.183 Shape_Representation_Relationship

aim728 Shape_Representation_Relationship (see 6.35.3)

4.2.184 Shell-Based_Surface_Model

- aim729 Shell_Based_Surface_Model (see 6.28.2)
- aim730 Shell_Based_Surface_Model with sbsm_boundary of one element
- aim731 Shell_Based_Surface_Model with sbsm_boundary of many elements (see 6.28.2)
- aim732 Shell_Based_Surface_Model with sbsm_boundary as Open_Shell (see 6.28.2)
- aim733 Shell_Based_Surface_Model with sbsm_boundary as Closed_Shell

4.2.185 Shell_Based_Wireframe_Model

- aim734 Shell_Based_Wireframe_Model (see 6.26.2)
- aim735 Shell_Based_Wireframe_Model with sbwm_boundary of one element (see 6.26.2)
- aim736 Shell_Based_Wireframe_Model with sbwm_boundary of many elements
- aim737 Shell_Based_Wireframe_Model with sbwm_boundary as Open_Shell
- aim738 Shell_Based_Wireframe_Model with sbwm_boundary as Closed_Shell
- aim739 Shell_Based_Wireframe_Model with sbwm_boundary as Vertex_Shell
- aim740 Shell_Based_Wireframe_Model with sbwm_boundary as Wire_Shell (see 6.26.2)

4.2.186 Shell_Based_Wireframe_Shape_Representation

- aim741 Shell_Based_Wireframe_Shape_Representation (see 6.26.2)
- aim742 Shell_Based_Wireframe_Shape_Representation with items of one element (see 6.26.2)
- aim743 Shell_Based_Wireframe_Shape_Representation with items of many elements

4.2.187 Si_Unit

- aim744 Si_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
- aim745 Si_Unit with prefix = exa
- aim746 Si_Unit with prefix = pico
- aim747 Si_Unit with prefix = mega
- aim748 Si_Unit with prefix = femto
- aim749 Si_Unit with prefix = atto
- aim750 Si_Unit with prefix = centi (see 6.21.2, 6.29.2, 6.30.2)
- aim751 Si_Unit with prefix = nano
- aim752 Si_Unit with prefix = hecto
- aim753 Si_Unit with prefix = micro
- aim754 Si_Unit with prefix = tera
- aim755 Si_Unit with prefix = giga
- aim756 Si_Unit with prefix = milli (see 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
- aim757 Si_Unit with prefix = peta
- aim758 Si_Unit with prefix = deci
- aim759 Si_Unit with prefix = kilo
- aim760 Si_Unit with prefix = deca
- aim761 Si_Unit with prefix not present (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
- aim762 Si_Unit with name = gram
- aim763 Si_Unit with name = steradian (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

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aim764 Si_Unit with name = radian (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

aim765 Si_Unit with name = metre (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.188 Solid_Angle_Measure_With_Unit

aim766 Solid_Angle_Measure_With_Unit

aim767 Solid_Angle_Measure_With_Unit with value_component as Solid_Angle_Measure

4.2.189 Solid_Angle_Unit

aim768 Solid_Angle_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.190 Specified_Higher_Usage_Occurrence

aim769 Specified_Higher_Usage_Occurrence

aim770 Specified_Higher_Usage_Occurrence with reference_designator

aim771 Specified_Higher_Usage_Occurrence with reference_designator not present

4.2.191 Spherical_Surface

aim772 Spherical_Surface (see 6.36.2, 6.39.2)

4.2.192 Start_Request

aim773 Start_Request (see 6.6.2)

aim774 Start_Request with items of one element (see 6.6.2)

aim775 Start_Request with items of many elements

aim776 Start_Request with items as Product_Definition_Formation (see 6.6.2)

4.2.193 Start_Work

aim777 Start_Work (see 6.6.2)

aim778 Start_Work with items of one element (see 6.6.2)

aim779 Start_Work with items of many elements

aim780 Start_Work with items as Product_Definition_Formation (see 6.6.2)

4.2.194 Supplied_Part_Relationship

aim781 Supplied_Part_Relationship (see 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, 6.16.2, 6.17.2, 6.18.2, 6.19.2, 6.20.2)

4.2.195 Surface_Curve

aim782 Surface_Curve (see 6.23.2)

aim783 Surface_Curve with associated_geometry of one element (see 6.23.2)
 aim784 Surface_Curve with associated_geometry of many elements
 aim785 Surface_Curve with associated_geometry as Pcurve
 aim786 Surface_Curve with associated_geometry as Surface (see 6.23.2)
 aim787 Surface_Curve with master_representation = pcurve_s2
 aim788 Surface_Curve with master_representation = pcurve_s1
 aim789 Surface_Curve with master_representation = curve_3d (see 6.23.2)

4.2.196 Surface_Of_Linear_Extrusion

aim790 Surface_Of_Linear_Extrusion (see 6.33.2)

4.2.197 Surface_Of_Revolution

aim791 Surface_Of_Revolution (see 6.22.2)

4.2.198 Surface_Patch

aim792 Surface_Patch
 aim793 Surface_Patch with u_transition = discontinuous
 aim794 Surface_Patch with u_transition = cont_same_gradient_same_curvature
 aim795 Surface_Patch with u_transition = cont_same_gradient
 aim796 Surface_Patch with u_transition = continuous
 aim797 Surface_Patch with v_transition = discontinuous
 aim798 Surface_Patch with v_transition = cont_same_gradient_same_curvature
 aim799 Surface_Patch with v_transition = cont_same_gradient
 aim800 Surface_Patch with v_transition = continuous
 aim801 Surface_Patch with u_sense = TRUE
 aim802 Surface_Patch with u_sense = FALSE
 aim803 Surface_Patch with v_sense = TRUE
 aim804 Surface_Patch with v_sense = FALSE

4.2.199 Surface_Replica

aim805 Surface_Replica

4.2.200 Toroidal_Surface

aim806 Toroidal_Surface

4.2.201 Trimmed_Curve

aim807 Trimmed_Curve (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
 aim808 Trimmed_Curve with trim_1 of one element (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
 aim809 Trimmed_Curve with trim_1 of many elements (see 6.25.2)
 aim810 Trimmed_Curve with trim_1 as Cartesian_Point (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
 aim811 Trimmed_Curve with trim_1 as Parameter_Value (see 6.25.2)

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- aim812 Trimmed_Curve with trim_2 of one element (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
- aim813 Trimmed_Curve with trim_2 of many elements (see 6.25.2)
- aim814 Trimmed_Curve with trim_2 as Cartesian_Point (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
- aim815 Trimmed_Curve with trim_2 as Parameter_Value (see 6.25.2)
- aim816 Trimmed_Curve with sense_agreement = TRUE (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)
- aim817 Trimmed_Curve with sense_agreement = FALSE (see 6.21.2, 6.22.2, 6.25.2)
- aim818 Trimmed_Curve with master_representation = parameter (see 6.25.2)
- aim819 Trimmed_Curve with master_representation = unspecified (see 6.21.2)
- aim820 Trimmed_Curve with master_representation = cartesian (see 6.21.2, 6.22.2, 6.23.2, 6.25.2)

4.2.202 Uncertainty_Measure_With_Unit

- aim821 Uncertainty_Measure_With_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
- aim822 Uncertainty_Measure_With_Unit with value_component as Area_Measure
- aim823 Uncertainty_Measure_With_Unit with value_component as Context_Dependent_Measure
- aim824 Uncertainty_Measure_With_Unit with value_component as Count_Measure
- aim825 Uncertainty_Measure_With_Unit with value_component as Descriptive_Measure
- aim826 Uncertainty_Measure_With_Unit with value_component as Length_Measure (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)
- aim827 Uncertainty_Measure_With_Unit with value_component as Mass_Measure
- aim828 Uncertainty_Measure_With_Unit with value_component as Plane_Angle_Measure (see 6.23.2)
- aim829 Uncertainty_Measure_With_Unit with value_component as Parameter_Value
- aim830 Uncertainty_Measure_With_Unit with value_component as Positive_Length_Measure
- aim831 Uncertainty_Measure_With_Unit with value_component as Positive_Plane_Angle_Measure
- aim832 Uncertainty_Measure_With_Unit with value_component as Solid_Angle_Measure
- aim833 Uncertainty_Measure_With_Unit with value_component as Volume_Measure
- aim834 Uncertainty_Measure_With_Unit with unit_component as Named_Unit (see 6.21.2, 6.22.2, 6.23.2, 6.24.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.29.2, 6.30.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.203 Uniform_Curve

- aim835 Uniform_Curve
- aim836 Uniform_Curve with control_points_list of many elements
- aim837 Uniform_Curve with curve_form = elliptic_arc
- aim838 Uniform_Curve with curve_form = polyline_form
- aim839 Uniform_Curve with curve_form = parabolic_arc
- aim840 Uniform_Curve with curve_form = circular_arc
- aim841 Uniform_Curve with curve_form = unspecified
- aim842 Uniform_Curve with curve_form = hyperbolic_arc
- aim843 Uniform_Curve with closed_curve = TRUE
- aim844 Uniform_Curve with closed_curve = FALSE
- aim845 Uniform_Curve with closed_curve = UNKNOWN
- aim846 Uniform_Curve with self_intersect = TRUE
- aim847 Uniform_Curve with self_intersect = FALSE
- aim848 Uniform_Curve with self_intersect = UNKNOWN

4.2.204 Uniform_Surface

aim849 Uniform_Surface
 aim850 Uniform_Surface with control_points_list of many elements
 aim851 Uniform_Surface with surface_form = surf_of_linear_extrusion
 aim852 Uniform_Surface with surface_form = plane_surf
 aim853 Uniform_Surface with surface_form = generalised_cone
 aim854 Uniform_Surface with surface_form = toroidal_surf
 aim855 Uniform_Surface with surface_form = conical_surf
 aim856 Uniform_Surface with surface_form = spherical_surf
 aim857 Uniform_Surface with surface_form = unspecified
 aim858 Uniform_Surface with surface_form = ruled_surf
 aim859 Uniform_Surface with surface_form = surf_of_revolution
 aim860 Uniform_Surface with surface_form = cylindrical_surf
 aim861 Uniform_Surface with surface_form = quadric_surf
 aim862 Uniform_Surface with u_closed = TRUE
 aim863 Uniform_Surface with u_closed = FALSE
 aim864 Uniform_Surface with u_closed = UNKNOWN
 aim865 Uniform_Surface with v_closed = TRUE
 aim866 Uniform_Surface with v_closed = FALSE
 aim867 Uniform_Surface with v_closed = UNKNOWN
 aim868 Uniform_Surface with self_intersect = TRUE
 aim869 Uniform_Surface with self_intersect = FALSE
 aim870 Uniform_Surface with self_intersect = UNKNOWN

4.2.205 Vector

aim871 Vector (see 6.21.2, 6.22.2, 6.25.2, 6.26.2, 6.27.2, 6.28.2, 6.33.2)

4.2.206 Versioned_Action_Request

aim872 Versioned_Action_Request (see 6.6.2, 6.7.2)

4.2.207 Vertex

aim873 Vertex

4.2.208 Vertex_Loop

aim874 Vertex_Loop (see 6.39.2)

4.2.209 Vertex_Point

aim875 Vertex_Point (see 6.26.2, 6.27.2, 6.28.2, 6.31.2, 6.32.2, 6.33.2, 6.34.2, 6.35.2, 6.35.3, 6.36.2, 6.37.2, 6.38.2, 6.39.2, 6.40.2)

4.2.210 Vertex_Shell

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aim876 Vertex_Shell

4.2.211 Volume_Measure_With_Unit

aim877 Volume_Measure_With_Unit

aim878 Volume_Measure_With_Unit with value_component as Volume_Measure

4.2.212 Volume_Unit

aim879 Volume_Unit

4.2.213 Week_Of_Year_And_Day_Date

aim880 Week_Of_Year_And_Day_Date (see 6.2.2, 6.5.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

aim881 Week_Of_Year_And_Day_Date with day_component (see 6.2.2, 6.5.2, 6.22.2, 6.25.2, 6.27.2, 6.30.2, 6.33.2, 6.36.2)

aim882 Week_Of_Year_And_Day_Date with day_component not present

4.2.214 Wire_Shell

aim883 Wire_Shell (see 6.26.2)

aim884 Wire_Shell with wire_shell_extent of one element

aim885 Wire_Shell with wire_shell_extent of many elements (see 6.26.2)

4.3 Implementation method test purposes

The following test purpose is derived from requirements in ISO 10303-21 and applies to preprocessors only.

other1 The IUT correctly encodes the AIM schema name in the exchange structure (see 6.1.1).

The following test purposes are derived from requirements in ISO 10303-21 and apply to postprocessors only.

other2 The IUT interprets the ISO 10303-21 header section present in an exchange structure (see 6.9.3).

other3 The IUT interprets the ISO 10303-21 SCOPE and EXPORT constructs present in an the exchange structure (see 6.11.3).

other4 The IUT interprets the ISO 10303-21 user-defined entity constructs present in an exchange structure (see 6.12.3).

other5 The IUT interprets various representations of numbers present in an exchange structure in accordance with ISO 10303-21 (see 6.21.3, 6.31.3).

other6 The IUT interprets various sequences of symbols present in an exchange structure in accordance with ISO 10303-21 (see 6.9.4, 6.11.4, 6.12.4).

4.4 Domain test purposes

The following test purposes are intended to test for certain general conditions as well as global and local rules associated with ISO 10303-203. They apply to postprocessors only.

other7 The IUT interprets global rules associated with conformance class 1: configuration-controlled design information without shape (see 6.9.5, 6.10.3, 6.11.5).

other8 The IUT interprets global rules associated with shape in conformance classes 2-6 (see 6.31.4).

other9 The IUT interprets local rules associated with conformance class 1 entities (see 6.13.3).

other10 The IUT interprets local rules associated with shape entities in conformance classes 2-6 (see 6.21.4).

other11 The IUT interprets uniqueness rules associated with conformance class 1 entities (see 6.8.3).

5 General test purposes and verdict criteria

General test purposes are statements of requirements that apply to all abstract test cases, all preprocessor abstract test cases, or all postprocessor abstract test cases. General verdict criteria are the means for evaluating whether the general test purposes are met. General verdict criteria shall be evaluated as a part of every executable test case to which they apply. Each general verdict criterion includes a reference to its associated test purpose.

5.1 General test purposes

The following are the general test purposes for this part of ISO 10303:

g1 The output of an IUT shall preserve all the semantics defined by the input model according to the reference paths specified in the mapping table defined in clause 5 of ISO 10303-203.

g2 The output of a preprocessor shall conform to the implementation method to which the IUT claims conformance.

g3 The instances in the output of a preprocessor shall be encoded according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-203.

g4 A postprocessor shall accept input data which is encoded according the implementation method to which the IUT claims conformance.

g5 A postprocessor shall accept input data structured according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-203.

5.2 General verdict criteria for all abstract test cases

The following verdict criteria apply to all abstract test cases contained in this part of ISO 10303:

gvc1 The semantics of the input model are preserved in the output of the IUT according to the reference paths specified in the mapping table defined in clause 5 of ISO 10303-203 (g1).

5.3 General verdict criteria for preprocessor abstract test cases

The following verdict criteria apply to all preprocessor abstract test cases contained in this part of ISO 10303:

gvc2 The output of a preprocessor conforms to the implementation method to which the IUT claims conformance (g2).

gvc3 The instances in the output of a preprocessor are encoded according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-203 (g3).

5.4 General verdict criteria for postprocessor abstract test cases

The following verdict criteria apply to all postprocessor abstract test cases contained in this part of ISO 10303:

gvc4 The postprocessor accepts input data which is encoded according to the implementation method to which the IUT claims conformance (g4, other2-other6).

gvc5 The postprocessor accepts input data which is structured according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-203 (g5, other7-other11).

6 Abstract test cases

This clause specifies the abstract test cases for this part of ISO 10303. Each abstract test case addresses one or more test purposes from clause 4. All the test purposes addressed by the test case are referenced either explicitly, in the test purposes covered sections, or indirectly, through the verdicted rows of the preprocessor input specification table.

The abstract test cases are organized by conformance class number starting with class 1 test cases. The title for a class 1 test case indicates a significant feature of the AP that is intended to be tested by it. Test case names for other CCs are intended to provide a simple description of the shape that is part of the test case. All abstract test case names are unique within this part of ISO 10303.

Each abstract test case has a subclause for the preprocessor test information and a subclause for each postprocessor input specification and related test information. The preprocessor and postprocessor input specifications are mirror images of each other, i.e. they represent the same semantic information. The preprocessor input model is presented in the form of a table with five columns:

- The Id column is used to reference application objects for assertions and categorisations. It uses the same identifier as the test purpose associated with the application element in that row of the table.
- The V column specifies whether, or not, the element in that row of the table is verdicted in this test case. A blank indicates it is not verdicted. A ‘*’ indicates that it is verdicted using a derived verdict criteria. A number references a specific verdict criteria defined in the verdict criteria section that follows the preprocessor input specification table.
- The Application Elements column identifies the particular application element or categorisation instance that is being defined by the table. For assertions the role is specified in parenthesis.
- The Value column specifies a specific value for the application element. For application objects and attributes the value column defines the semantic value for that element’s instance in the input model. A #<number> in the column is a reference to an entity instance name in the postprocessor input specification where the corresponding value is specified. For assertions, this column holds a link to the related application object. For categorisations, the Value column identifies the subtype application object. A “<not_present>” indicates that the application element or categorisation is not present in the input model.

— The Req column specifies whether the value in the Value column is mandatory (M), suggested (S) or constrained (C<number>, where <number> is an integer). A suggested value may be changed by a test realiser. A mandatory value may not be changed due to rules in EXPRESS, rules in the mapping table, or the requirements of the test purpose being verdicted. Each constrained value references a note labelled C<number> at the end of the preprocessor input model table and may be modified according to specific constraints specified in it.

The postprocessor input specifications are defined using ISO 10303-21. The values in the postprocessor specifications are suggested unless declared mandatory or constrained by the preprocessor input table.

The abstract test case specifies all the verdict criteria which are used to assign a verdict during testing. Special verdict criteria for preprocessor and postprocessor testing are defined explicitly in each abstract test case subclause. The relevant derived verdict criteria for preprocessor and postprocessor testing are identified in the V column of the preprocessor input table.

6.1 CM_MinCM 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF's part_identification and authorization. Specifically, this test case represents an application object Part that has a single Part_version which is defined by a Design_discipline_product_definition. The required Approval and Person_organization objects are also represented. This test case represents the minimum subset required by Conformance Class 1 : design configuration management.

6.1.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

The following other test purpose is covered: other1.

Input specification:

Table 1 - Application elements for CM_MinCM 1

Id	V	Application Elements	Value	Req
@157.1		Approval	1-2:#44	M
@158		Approval.date	1-2:#48	S
@159		Approval.purpose	1-2:#45,'Approved as initial STEP test case part'	S
@160		Approval.status	1-2:#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	1-2:#53	M
@158		Approval.date	1-2:#57	S
@159		Approval.purpose	1-2:#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#55	S
@157.3		Approval	1-2:#61	M
@158		Approval.date	1-2:#65	S
@159		Approval.purpose	1-2:#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	1-2:#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	1-2:#4	M
@1138		Person_organization.person_organization_id	1-2:(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	1-2:#11	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	1-2:#40	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@1137.4		Person_organization	1-2:#19	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	1-2:#80	M
@1138		Person_organization.person_organization_id	1-2:(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	1-2:#83	S
@1142		Person_organization.person	1-2:#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	1-2:#17	M
@392		Design_discipline_product_definition.creation_date	1-2:#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	1-2:#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@998		Part	1-2:#1	M
@999		Part.part_classification	1-2:#9	S
@1001		Part.part_nomenclature	1-2:#1,'Solid Cube'	S
@1002		Part.part_number	1-2:#1,'11111'	S
@1003		Part.part_type	1-2:#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	1-2:#10	M
@1069		Part_version.make_or_buy_code	1-2:#10,BOUGHT	S
@1072		Part_version.release_status	1-2:#46	S
@1073		Part_version.revision_letter	1-2:#10,'A'	S
@1074		Part_version.security_code	1-2:#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	1-2:#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	1-2:#83	M
@1975		Supplier.supplier_id	1-2:#83,'CDI'	S
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M
@1979	*	Person_organization to Supplier (is identified by)	@1137.5	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criterion applies:

VC1: The header section of the exchange structure generated by the IUT contains the schema name 'config_control_design' in the attribute **file_schema.schema_identifiers** as specified in 9.2.3 of ISO 10303-21 (see other1).

6.1.2 Postprocessor 1

Test purposes covered:

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The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 1, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim292, aim294, aim296, aim305, aim306, aim314, aim403, aim404, aim406, aim432, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim587, aim589, aim590, aim600, aim601, aim603, aim719, aim720

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 1 above apply.

6.1.3 Postprocessor 2

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 1, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim292, aim293, aim295aim305, aim306, aim314, aim403, aim404, aim405, aim406, aim407, aim432, aim460, aim461, aim522, aim523, aim524, aim525, aim526, aim527, aim528, aim529, aim530, aim531, aim532, aim533, aim534, aim535, aim536, aim537, aim578, aim579aim587, aim589, aim590, aim600, aim602, aim603, aim719, aim720

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 1 above apply.

6.2 Min_CM 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF's part_identification and authorization. Specifically, this test case represents an application object Part having a single Part_version that is defined by a Design_discipline_product_definition. The required Approval and Person_organization objects are also represented. In addition, this test case includes the optional element Part.part_classification.

6.2.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 2 - Application elements for Min_CM 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#10	M
@1974.2		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.2.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 2, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

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The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim292, aim294, aim296, aim305, aim306, aim314, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim462, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim600, aim601, aim603, aim719, aim720, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 2 above apply.

6.3 CM_Part_Id 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF's part_identification, authorization, and source_control. Specifically, this test case represents the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

6.3.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 3 - Application elements for CM_Part_Id 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M

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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1974		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1974		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1974		Person_organization to Supplier (identifies)	@1974	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M

Id	V	Application Elements	Value	Req
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.8	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.6	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M

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Id	V	Application Elements	Value	Req
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.3.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 3, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 3 above apply.

6.4 CM_Part_Id 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF's part_identification, authorization, and source_control. Specifically, this test case represents the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The optional element Part_version.contract_number is included, as well as the optional

element Supplied_part_version.supplier_part_number which requires a second Part object related to the Part_version corresponding to the Supplied_part_version.

6.4.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 4 - Application elements for CM_Part_Id 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.8		Approval	#1083	M
@158		Approval.date	#1106	S
@159		Approval.purpose	#1084,'Approved as active project under contract'	S
@160		Approval.status	#1085	S
@1137.1		Person_organization	#4	M

Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1139	*	Person_organization.address	#1097	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1104	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1', #83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M

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Id	V	Application Elements	Value	Req
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 j)		Person_organization	#1091	M
@1138		Person_organization.person_organization_id	(#1093,'444-004'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#1093	S
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998.1		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066.1	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@998.2		Part	#1103	M
@999		Part.part_classification	#1109	S
@1001		Part.part_nomenclature	#1103,'Cube Solid'	S
@1002		Part.part_number	#1103,'12345'	S
@1003		Part.part_type	#1109,	S
@1008		Part to Part_version (has)	@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.6	M

Id	V	Application Elements	Value	Req
@1066.1		Part_version	#10	M
@1067	*	Part_version.contract_number	#1081,'NVI-1121'	S
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	'12345'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.4.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 4, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

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The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim194, aim195, aim196, aim197, aim199, aim200aim201, aim203, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim224, aim225, aim226, aim227, aim228, aim229, aim230, aim232, aim239, aim240, aim289, aim290, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim460, aim461, aim464, aim466, aim467, aim469, aim472, aim473, aim475, aim477, aim479, aim481, aim483, aim486, aim488, aim489, aim522, aim523, aim525aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim538, aim540, aim541, aim543, aim546, aim547, aim549, aim551, aim553, aim556, aim557, aim560, aim562, aim563, aim578, aim579, aim581, aim582, aim584, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 4 above apply.

6.5 CM_Part_Id 4

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF's part_identification, authorization, and source_control. Specifically, this test case represents the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The optional element Part_version.contract_number is included, as well as the optional element Supplied_part_version.supplier_part_number which requires a second Part object related to the Part_version corresponding to the Supplied_part_version. Also included are the optional elements Design_discipline_product_definition.cad_filename and Part.standard_part_indicator.

6.5.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 5 - Application elements for CM_Part_Id 4

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.8		Approval	#1083	M
@158		Approval.date	#1106	S
@159		Approval.purpose	#1084,'Approved as active project under contract'	S
@160		Approval.status	#1085	S
@1137.1		Person_organization	#4	M

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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1139	*	Person_organization.address	#1097	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1104	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#1091	M
@1138		Person_organization.person_organization_id	(#1093,'444-004'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#1093	S
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@390	*	Design_discipline_product_definition.cad_filename	#1116,'shape1b.dwg'	S
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998.1		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'41111'	S
@1003		Part.part_type	(#9, #1102)	S
@1004	*	Part.standard_part_indicator	#1109,'standard_part'	S
@1008		Part to Part_version (has)	@1066.1	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@998.2		Part	#1103	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#1103,'Cube Solid'	S
@1002		Part.part_number	#1103,'12345'	S
@1003		Part.part_type	#2009	S

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Id	V	Application Elements	Value	Req
@1008		Part to Part_version (has)	@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.6	M
@1066.1		Part_version	#10	M
@1067	*	Part_version.contract_number	#1081,'NVI-1121'	S
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.2		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1103,'12345'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict Criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.5.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 5, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim194, aim195, aim196, aim197, aim199, aim200, aim201, aim203, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim224, aim225, aim226, aim227, aim228, aim229, aim230, aim232, aim239, aim240, aim289, aim290, aim292, aim294, aim296, aim305, aim306, aim320, aim322, aim403, aim404, aim405, aim406, aim407, aim432, aim460, aim461, aim464, aim466, aim467, aim469, aim471, aim473, aim475, aim477, aim479, aim481, aim483, aim486, aim488, aim489, aim522, aim523, aim525, aim527, aim528, aim529, aim530, aim532, aim533, aim535, aim536, aim537, aim538, aim540, aim541, aim543, aim546, aim547, aim549, aim551, aim553, aim556, aim557, aim560, aim562, aim563, aim578, aim579, aim581, aim582, aim584, aim587, aim588, aim589, aim590, aim592, aim597, aim598, aim600, aim601, aim603, aim719, aim720, aim785, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 5 above apply.

6.6 CM_Design_Activity_Control 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF design_activity_control. Specifically, this test case represents the application objects Start_request (a subtype of Work_request) and Start_order (a subtype of Work_order). This information is added to the basic requirements of the UoF's part_identification, authorization, and source_control: the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

6.6.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

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Input specification:

Table 6 - Application elements for CM_Design_Activity_Control 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.8		Approval	#1217	M
@158		Approval.date	#1214	S
@159		Approval.purpose	#1211,'Approved start request'	S
@160		Approval.status	#1212	S
@165	*	Work_request to Approval (approves)	@2242	M
@157.9		Approval	#1224	M

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Id	V	Application Elements	Value	Req
@158		Approval.date	#1214	S
@159		Approval.purpose	#1225,'Approved start order'	S
@160		Approval.status	#1226	S
@163	*	Work_order to Approval (approves)	@2181	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M

Id	V	Application Elements	Value	Req
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1209	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1159	*	Work_request to Person_organization (is notified of)	@2242	M
@1137.10		Person_organization	#1235	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1159		Work_request to Person_organization (is notified of)	@2242	M
@2181		Work_order (as Start_order)	#1221	M
@2182	*	Work_order.work_order_id	#1240,'1993-2'	S
@2183	*	Work_order.additional_data	#1240,'additional data'	S
@2185	*	Work_order.analysis_data	#1240,'assessed and validated design requirements'	S
@2187	*	Work_order to Approval (is approved by)	@157.9	M
@2188	*	Work_order to Part_version (applies to)	@1066.1	M
@2190	*	Work_order to Work_request (incorporates)	@2242	M
@1765	*	Start_order	#1220	S
@2242		Work_request (as Start_request)	#1202	M
@2243		Work_request.description	#1202,'wireframe design of cube part'	S
@2244		Work_request.reason	#1202,'initiate CAD design of cube part'	S
@2245		Work_request.request_date	#1205	S
@2246		Work_request.status	#1203	S
@2247		Work_request.work_request_id	#1202,'1993-1'	S
@2248		Work_request to Approval (is approved by)	@157.8	M
@2249		Work_request to Part_Version (is based on)	@1066.1	M
@2252		Work_request to Person_organization (notice is received by)	@1137.9,@1137.10	M
@2254		Work_order to Work_request (is incorporated by)	@2181	M
@1815	*	Start_request	#1201	S
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.8	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1009	*	Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1082	*	Work_order to Part_version (is the result of)	@2181	M
@1085	*	Work_request to Part_version (is referenced by)	@2242	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078	*	Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.6	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.6.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 6, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim1, aim2, aim4, aim5, aim6, aim7, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim192, aim193, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim209, aim211, aim214, aim215, aim216, aim217, aim218, aim222, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim292, aim294, aim296, aim305, aim306, aim317, aim403, aim404, aim405, aim406, aim407, aim432, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim777, aim778, aim780, aim781, aim782, aim784, aim785, aim876

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 6 above apply.

6.7 CM_Design_Activity_Control 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF design_activity_control. Specifically, this test case represents the application objects Change_request (a subtype of Work_request) and Change_order (a subtype of Work_order). This information is added to the basic requirements of the UoF's part_identification, authorization, and source_control: the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

6.7.1 Preprocessor

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Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 7 - Application elements for CM_Design_Activity_Control 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.8		Approval	#1217	M
@158		Approval.date	#1214	S
@159		Approval.purpose	#1211,'Not yet approved change request'	S
@160		Approval.status	#1212	S
@165		Work_request to Approval (approves)	@2242	M
@157.9		Approval	#1224	M

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Id	V	Application Elements	Value	Req
@158		Approval.date	#2214	S
@159		Approval.purpose	#1225,'Not yet approved change order'	S
@160		Approval.status	#1226	S
@163		Work_order to Approval (approves)	@2181	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.9		Person_organization	#1209	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1159		Work_request to Person_organization (is notified of)	@2242	M
@1137.10		Person_organization	#1235	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1159		Work_request to Person_organization (is notified of)	@2242	M
@2181		Work_order (as Change_order)	#1221	M
@2182		Work_order.work_order_id	#1223,'1993-4'	S
@2183		Work_order.additional_data	#1223,'topology requires different CAD system'	S
@2185		Work_order.analysis_data	#1223,'anlysis data'	S
@2187		Work_order to Approval (is approved by)	@157.9	M
@2188		Work_order to Part_version (applies to)	@1066.1	M
@2190		Work_order to Work_request (incorporates)	@2242	M
@228	*	Change_order	#1220	M
@229	*	Change_order.adopted_solution	#1222	S
@230	*	Change_order.change_date	#1230	S
@2242		Work_request (as Change_request)	#1202	M
@2243	*	Work_request.description	#1202,'change wireframe design of cube part'	S
@2244	*	Work_request.reason	#1202,'modify CAD design of cube part'	S
@2245	*	Work_request.request_date	#1205	S
@2246	*	Work_request.status	#1203	S
@2247	*	Work_request.work_request_id	#1202,'1993-3'	S
@2248	*	Work_request to Approval (is approved by)	@157.8	M
@2249	*	Work_request to Part_Version (is based on)	@1066.1	M
@2252	*	Work_request to Person_organization (notice is received by)	@1137.9,@1137.10	M
@2254	*	Work_order to Work_request (is incorporated by)	@2181	M
@280	*	Change_request	#1201	M
@281	*	Change_request.recommended_solution	#1222	S
@283	*	Change_request.version	#1202,'v3'	S
@284	*	Change_request.consequence	#1222,'cube topology needed for NC program generation'	S
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M

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Id	V	Application Elements	Value	Req
@411		Person_organization to	@1137.4	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to	@1137.8	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1082		Work_order to Part_version (is the result of)	@2181	M
@1085		Work_request to Part_version (is referenced by)	@2242	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.6	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S

Id	V	Application Elements	Value	Req
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.7.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 7, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim1, aim2, aim4, aim5, aim6, aim7, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim190, aim191, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim208, aim210, aim214, aim215, aim216, aim217, aim218, aim221, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim241, aim242, aim244, aim245, aim246aim248, aim292, aim294, aim296, aim305, aim306, aim317, aim403, aim404, aim405, aim406, aim407, aim432, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785, aim876

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 7 above apply.

6.8 CM_Design_Info 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF design_information. Specifically, this test case represents the application objects

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Design_specification, Material_specification, and Process_specification (each a subtype of Specification). This information is added to the basic requirements of the UoF's part_identification, authorization, and source_control: the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

Extra Details:

The postprocessor input specification in 6.8.3 addresses the test purpose other11.

6.8.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 8 - Application elements for CM_Design_Info 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M

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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1702.1		Specification (as Design_specification)	#1251	M
@1703	*	Specification.specification_code	#1252,'Document S1993-design'	S
@1704	*	Specification.specification_source	#1251,'NVIspec-design'	S
@1705	*	Specification to Usage_constraint (is constrained by)	<not_present>	M
@1709	*	Shape_aspect to Specification (specifies a characteristic of)	<not_present>	M
@464	*	Design_specification	#1252	S
@1702.2		Specification as (Process_specification)	#1254	M
@1703		Specification.specification_code	#1255,'Document S1993-process'	S

Id	V	Application Elements	Value	Req
@1704		Specification.specification_source	#1254,'NVIspec-process'	S
@1426	*	Process_specification	#1255	S
@1702.3		Specification (as Material_specification)	#1257	M
@1703		Specification.specification_code	#1259,'Document S1993-material'	S
@1704		Specification.specification_source	#1257,'NVIspec-material'	S
@898	*	Material_specification	#1259	S
@389.1	*	Design_discipline_product_definition	#17	M
@391	*	Design_discipline_product_definition.cad_filename	<not_present>	M
@392	*	Design_discipline_product_definition.creation_date	#25	S
@393	*	Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394	*	Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@395	*	Design_discipline_product_definition to Additional_design_information (has)	<not_present>	M
@398	*	Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@399	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	<not_present>	M
@402	*	Design_discipline_product_definition to Engineering_assembly (is used as a component in)	<not_present>	M
@405	*	Design_discipline_product_definition to Engineering_make_from (is the base design in)	<not_present>	M
@408	*	Design_discipline_product_definition to Engineering_make_from (is the resultant design in)	<not_present>	M
@411	*	Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412	*	Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@413	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	<not_present>	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.8	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066.1		Part_version	#10	M

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Id	V	Application Elements	Value	Req
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.6	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.8.2 Postprocessor 1

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 8, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

AIM test purposes covered:

aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim234, aim235, aim237, aim239,

aim240, aim292, aim294, aim296, aim305, aim306, aim320, aim322, aim324, aim403, aim404, aim406, aim432, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 8 above apply.

6.8.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other11.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS uniqueness rule **UR1** on **person**.

6.9 CM_Design_Info 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF design_information. Specifically, this test case represents the application objects Surface_finish_specification (a subtype of Specification), Usage_constraint, and Additional_design_information, . This information is added to the basic requirements of the UoF's part_identification, authorization, and source_control: the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

Extra details:

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The postprocessor input specification in 6.9.3 addresses the test purpose other2. The postprocessor input specification in 6.9.4 addresses the test purpose other6. The postprocessor input specification in 6.9.5 addresses the test purpose other7.

6.9.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 9 - Application elements for CM_Design_Info 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.5		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.6		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.7		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.8		Approval	#1083	M
@158		Approval.date	#1106	S
@159		Approval.purpose	#1084,'Approved as active project under contract'	S
@160		Approval.status	#1085	S
@1137.1		Person_organization	#4	M

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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1139	*	Person_organization.address	#1097	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	#1104	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1139		Person_organization.address	#1096	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#1091	M
@1138		Person_organization.person_organization_id	(#1093,'444-004'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#1093	S
@1	*	Additional_design_information	#1255	S
@2	*	Additional_design_information to Specification (is a collection of)	@1702	M
@1702		Specification (as Surface_finish_specification)	#1251	M
@1703		Specification.specification_code	#1252,'Document S1993-surface'	S
@1704		Specification.specification_source	#1251,'NVIspec-surface'	S
@1706	*	Specification to Usage_constraint (is constrained by)	@2079	M
@1708	*	Additional_design_information to Specification (is identified by)	@1	M
@2029	*	Surface_finish_specification	#1252	S
@2079	*	Usage_constraint	#1256	M
@2080	*	Usage_constraint.element	#1256,'visible imperfections'	S
@2081	*	Usage_constraint.value	#1256,'none under 10x magnification'	S
@2082	*	Specification to Usage_constraint (applies to)	@1702	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.7	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M

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Id	V	Application Elements	Value	Req
@998.1	*	Part	#1	M
@999	*	Part.part_classification	(#9, #1102)	S
@1001	*	Part.part_nomenclature	#1,'Solid Cube'	S
@1002	*	Part.part_number	#1,'21111'	S
@1003	*	Part.part_type	(#9, #1102)	S
@1005	*	Part to Alternate_part (has an alternate of)	<not_present>	M
@1008	*	Part to Part_version (has)	@1066.1	M
@1010	*	Part to Substitute_part (has substitutes of)	<not_present>	M
@1013	*	Person_organization to Part (is owned by)	@1137.1	M
@1014	*	Product_configuration to Part (satisfies)	<not_present>	M
@998.2		Part	#1103	M
@999		Part.part_classification	#1109	S
@1001		Part.part_nomenclature	#1103,'Cube Solid'	S
@1002		Part.part_number	#1103,'12345'	S
@1003		Part.part_type	#1109	S
@1008		Part to Part_version (has)	@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.6	M
@1066.1		Part_version	#10	M
@1067	*	Part_version.contract_number	#1081,'NVI-1121'	S
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.5	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1103,'12345'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.5	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M

Id	V	Application Elements	Value	Req
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.9.2 Postprocessor 1Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 9, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim189, aim194, aim195, aim196, aim197, aim199, aim200, aim201, aim203, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim224, aim225, aim226, aim227, aim228, aim229, aim230, aim232, aim234, aim235, aim237, aim239, aim240, aim289, aim290, aim292, aim294, aim296, aim305, aim306, aim320, aim321, aim322, aim323, aim403, aim404, aim406, aim432, aim460, aim461aim464, aim466, aim467, aim469, aim472, aim473, aim475, aim477, aim479, aim481, aim483, aim486, aim488, aim489, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim538, aim540, aim541, aim543, aim546, aim547, aim549, aim551, aim553, aim556, aim557, aim560, aim562, aim563, aim578, aim579, aim581, aim582, aim584, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 9 above apply.

6.9.3 Postprocessor 2Test purposes covered:

The following other test purpose is covered: other2

Input specification:

See annex C.

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Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the header section syntax specified in ISO 10303-21.

6.9.4 Postprocessor 3

Test purposes covered:

The following other test purpose is covered: other6

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4

Extra details:

This input specification tests an IUT's compliance with the data section syntax specified in ISO 10303-21.

6.9.5 Postprocessor 4

Test purposes covered:

The following other test purpose is covered: other7

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS global rule **Product_version_requires_person_organization**.

6.10 CM_End_Id 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF end_item_identification. Specifically, this test case represents the application objects Product_configuration and Product_model. This information is added to the basic requirements of the UoF's part_identification, authorization, and source_control: the application object Part having multiple Part_versions each defined by a Design_discipline_product_definition. One of the Part_versions corresponds to a Supplied_part_version with an identified Supplier.

Extra details:

The postprocessor input specification in 6.10.3 addresses the test purpose other7.

6.10.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 10 - Application elements for CM_End_Id 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M

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Id	V	Application Elements	Value	Req
@1153		Person_organization to Supplier (identifies)	@1974	M
@1476	*	Product_configuration	#1252	M
@1477	*	Product_configuration.item_id	#1252,'LX'	S
@1478	*	Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479	*	Product_configuration to Approval (is approved by)	@157.2	M
@1481	*	Product_configuration to Part (is satisfied by)	@998	M
@1483	*	Product_configuration to Planned_effectivity (has)	<not_present>	M
@1486	*	Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Cube'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025,#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1009	*	Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015	*	Product_configuration to Part (satisfies)	@1476	M
@1066.1	*	Part_version	#10	M
@1068	*	Part_version.contract_number	<not_present>	M
@1069	*	Part_version.make_or_buy_code	#10,BOUGHT	M
@1072	*	Part_version.release_status	#46	S
@1073	*	Part_version.revision_letter	#10,'A'	S
@1074	*	Part_version.security_code	#33	S

Id	V	Application Elements	Value	Req
@1075	*	Part_version to Approval (is approved by)	@157.1	M
@1076	*	Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080	*	Person_organization to Part_version (is created by)	@1137.2	M
@1081	*	Work_order to Part_version (is the result of)	<not_present>	M
@1084	*	Work_request to Part_version (is referenced by)	<not_present>	M
@1087	*	Part to Part_version (shall define a variation of)	@998	M
@1066.2		Part_version	#1010	M
@1071	*	Part_version.make_or_buy_code	#1010,MADE	M
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078	*	Part_version to Supplied_part_version (is identified as)	@1918	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@1918		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.10.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 10, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294,

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aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 10 above apply.

6.10.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other7.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS global rule **Certification_requires_date_time**.

6.11 CM_Bill_Of_Material 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Alternate_part. This information is used in relating two sets of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

Extra details:

The postprocessor input specification in 6.11.3 addresses the test purpose other3. The postprocessor input specification in 6.11.4 addresses the test purpose other6. The postprocessor input specification in 6.11.5 addresses the test purpose other7.

6.11.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 11 - Application elements for CM_Bill_Of_Material 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@157.9		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.10		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.11		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.12		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.13		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.14		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.15		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@1137.1	*	Person_organization	#4	M
@1138	*	Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1140	*	Person_organization.address	<not_present>	M
@1141	*	Person_organization.organization	#7	S
@1142	*	Person_organization.person	#6	S
@1144	*	Person_organization to Part (is the owner of)	@998.1	M

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Id	V	Application Elements	Value	Req
@1146	*	Person_organization to Design_discipline_product_definition (is the creator of)	<not_present>	M
@1149	*	Person_organization to Part_version (is the creator of)	<not_present>	M
@1152	*	Person_organization to Supplier (identifies)	<not_present>	M
@1155	*	Approval to Person_organization (authorizes)	<not_present>	M
@1158	*	Work_request to Person_organization (is notified of)	<not_present>	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1143	*	Person_organization to Part (is the owner of)	<not_present>	M
@1150	*	Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147	*	Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153	*	Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S

Id	V	Application Elements	Value	Req
@1147		Person_organization to	@389.2	M
		Design_discipline_product_definition (is the creator of)		
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#2004	M
)				
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1		Person_organization	#2011	M
1				
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1		Person_organization	#2040	M
2				
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2019	M
3				
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to	@389.3	M
		Design_discipline_product_definition (is the creator of)		
@1137.1		Person_organization	#2080	M
4				
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3011	M
5				
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3040	M
6				
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3019	M
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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@105	*	Alternate_part	#2001	S
@106	*	Part to Alternate_part (is an alternate for)	@998.1	M
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536	*	Product_model	#1253	M
@1537	*	Product_model.model_name	#1253,'Super Cube'	S
@1538	*	Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.11	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.13	M

Id	V	Application Elements	Value	Req
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.15	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.17	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1006	*	Part to Alternate_part (has an alternate of)	@105	M
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Solid Square'	S
@1002		Part.part_number	#2001,'99999'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.10	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M

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Id	V	Application Elements	Value	Req
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.9	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.11	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.13	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1080		Person_organization to Part_version (is created by)	@1137.15	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11111'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'99999'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.13	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1,@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.11.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 11, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim41, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 11 above apply.

6.11.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other3

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the SCOPE and EXPORT constructs in data section syntax specified in ISO 10303-21.

6.11.4 Postprocessor 3

Test purposes covered:

The following other test purpose is covered: other6

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Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the data section syntax specified in ISO 10303-21.

6.11.5 Postprocessor 4

Test purposes covered:

The following other test purpose is covered: other7.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS global rule **Product_requires_product_category**.

6.12 CM_Bill_Of_Material 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Engineering_make_from. This information is used in relating two sets of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

Extra details:

The postprocessor input specification in 6.12.3 addresses the test purpose other4. The postprocessor input specification in 6.12.4 addresses the test purpose other6.

6.12.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 12 - Application elements for CM_Bill_Of_Material 2

Id	V	Application Elements	Value	Req
@157.1	*	Approval	#44	M
@158	*	Approval.date	#48	S
@159	*	Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160	*	Approval.status	#46	S
@161	*	Approval to Person_organization (is authorized by)	<not_present>	M
@171	*	Design_discipline_product_definition to Approval (approves)	<not_present>	M
@174	*	Part_version to Approval (approves)	@1066.1	M
@176	*	Supplied_part_version to Approval (approves)	<not_present>	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169	*	Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172	*	Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177	*	Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S

Id	V	Application Elements	Value	Req
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.9		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.10		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.11		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.12		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.13		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.14		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.15		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S

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Id	V	Application Elements	Value	Req
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 j)		Person_organization	#2004	M

Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 1		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 2		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 3		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1 4		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 5		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 7		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M

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Id	V	Application Elements	Value	Req
@1153		Person_organization to Supplier (identifies)	@1974	M
@575	*	Engineering_make_from	#3265	S
@576	*	Design_discipline_product_definition to Engineering_make_from (has the base design of)	@389.1	M
@577	*	Design_discipline_product_definition to Engineering_make_from (has a resultant design of)	@389.3	M
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@406	*	Design_discipline_product_definition to Engineering_make_from (is the base design in)	@575	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.11	M
@409	*	Design_discipline_product_definition to Engineering_make_from (is the resultant design in)	@575	M

Id	V	Application Elements	Value	Req
@411		Person_organization to	@1137.13	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.15	M
@411		Person_organization to	@1137.17	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Flat Ring Gasket'	S
@1002		Part.part_number	#1,'11113'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.10	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M

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Id	V	Application Elements	Value	Req
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.9	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.11	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.13	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.15	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'11113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.13	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1.@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.12.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 12, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim315, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 12 above apply.

6.12.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other4.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the user defined entity constructs in data section syntax specified in ISO 10303-21.

6.12.4 Postprocessor 3

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Test purposes covered:

The following other test purpose is covered: other6.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the data section syntax specified in ISO 10303-21.

6.13 CM_Bill_Of_Material 3

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Engineering_assembly. This information is used in relating two sets of basic requirements of the UoF's part_identification, authorization, source_control, and end_item_identification. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

Extra details:

The postprocessor input specification in 6.13.3 addresses the test purpose other9.

6.13.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 13 - Application elements for CM_Bill_Of_Material 3

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

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Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S

Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M

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Id	V	Application Elements	Value	Req
@1137.1		Person_organization	#3290	M
		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2004	M
		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1		Person_organization	#2011	M
		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1		Person_organization	#2040	M
		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2019	M
		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1		Person_organization	#2080	M
		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3011	M
		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3040	M
		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.1		Person_organization	#3019	M
		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to	@389.4	M
		Design_discipline_product_definition (is the creator of)		
@1153		Person_organization to Supplier (identifies)	@1974	M
@514	*	Engineering_assembly	#3265	M
@515	*	Engineering_assembly.security_code	#3283	S
@516	*	Engineering_assembly to Planned_effectivity (is effective in)	<not_present>	M
@519	*	Engineering_assembly to Substitute_part (has substitute components of)	<not_present>	M
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@400	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514	M
@411		Person_organization to	@1137.5	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to	@1137.9	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M

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Id	V	Application Elements	Value	Req
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@403	*	Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M

Id	V	Application Elements	Value	Req
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M

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Id	V	Application Elements	Value	Req
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1,@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.13.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 13, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim57, aim59aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 13 above apply.

6.13.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other9.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS local rule **WR1 on Person**

6.14 CM_Bill Of_Material 4

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Engineering_promissory_usage (a subtype of Engineering_assembly). This information is used in relating two sets of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

6.14.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 14 - Application elements for CM_Bill Of_Material 4

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S

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Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.1		Person_organization	#3290	M
		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2004	M
		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1		Person_organization	#2011	M
		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1		Person_organization	#2040	M
		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2019	M
		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1		Person_organization	#2080	M
		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3011	M
		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3040	M
		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M

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Id	V	Application Elements	Value	Req
@1137.1		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514		Engineering_assembly as (Engineering_promissory_usage)	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@522	*	Engineering_assembly to Design_discipline_product_definition (assembly is defined for)	@389.1	M
@519		Engineering_assembly to Design_discipline_product_definition (component is defined by)	@389.3	M
@683		Engineering_promissory_usage	#3265	S
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M

Id	V	Application Elements	Value	Req
@411		Person_organization to	@1137.9	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514	M
@411		Person_organization to	@1137.14	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to	@1137.18	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S

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Id	V	Application Elements	Value	Req
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S

Id	V	Application Elements	Value	Req
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1.@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.14.2 PostprocessorTest purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 14, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim605, aim607, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 14 above apply.

6.15 CM_Bill_Of_Material 5Test case summary:

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The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Engineering_next_higher_assembly (a subtype of Engineering_assembly), with the associated element Engineering_next_higher_assembly.as_required. This information is used in relating three sets of basic requirements of the UoF's part_identification, authorization, and source_control in an assembly hierarchy. The top level of the assembly hierarchy represents the entire gasket-rod assembly as itself, related by a generic Engineering_assembly to the second level representing the gasket sub-assembly. This in turn is related via the Engineering_next_higher_assembly to the final level of the assembly hierarchy representing the rod component. Each level in the assembly hierarchy represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

6.15.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 15 - Application elements for CM_Bill_Of_Material 5

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

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Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#5293	M
@158		Approval.date	#5297	S

Id	V	Application Elements	Value	Req
@159		Approval.purpose	#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#5295	S
@157.18		Approval	#4044	M
@158		Approval.date	#4048	S
@159		Approval.purpose	#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	#4046	S
@174		Part_version to Approval (approves)	@1066.5	M
@157.19		Approval	#4053	M
@158		Approval.date	#4057	S
@159		Approval.purpose	#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#4055	S
@157.20		Approval	#4061	M
@158		Approval.date	#4065	S
@159		Approval.purpose	#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#4063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.5	M
@157.21		Approval	#4089	M
@158		Approval.date	#4094	S
@159		Approval.purpose	#4090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#4091	S
@157.22		Approval	#5044	M
@158		Approval.date	#5048	S
@159		Approval.purpose	#5045,'Approved as test part design'	S
@160		Approval.status	#5046	S
@174		Part_version to Approval (approves)	@1066.6	M
@177		Supplied_part_version to Approval (approves)	@1918.6	M
@157.23		Approval	#5053	M
@158		Approval.date	#5057	S
@159		Approval.purpose	#5054,'Approved as unclassified test part design'	S
@160		Approval.status	#5055	S
@157.24		Approval	#5061	M
@158		Approval.date	#5065	S
@159		Approval.purpose	#5062,'Approved as detailed drawing'	S
@160		Approval.status	#5063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.6	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S

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Id	V	Application Elements	Value	Req
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.10		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S

Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 1		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 2		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 3		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 4		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1 5		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 7		Person_organization	#3040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 8		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S

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Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 9		Person_organization	#5290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 0		Person_organization	#4004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.2 1		Person_organization	#4011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.5	M
@1137.2 2		Person_organization	#4040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 3		Person_organization	#4019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.5	M
@1137.2 4		Person_organization	#4080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2 5		Person_organization	#5011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.2		Person_organization	#5040	M
5				
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2		Person_organization	#5019	M
7				
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to	@389.6	M
		Design_discipline_product_definition (is the creator of)		
@1153		Person_organization to Supplier (identifies)	@1974	M
@514.1		Engineering_assembly	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@522		Design_discipline_product_definition to	@389.1	M
		Engineering_assembly(assembly is defined for)		
@523	*	Design_discipline_product_definition to	@389.3	M
		Engineering_assembly(component is defined by)		
@514.2		Engineering_assembly (as	#5265	M
		Engineering_next_higher_assembly)		
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to	@389.3	M
		Engineering_assembly(assembly is defined for)		
@523		Design_discipline_product_definition to	@389.5	M
		Engineering_assembly(component is defined by)		
@627	*	Engineering_next_higher_assembly	#5265	M
@629	*	Engineering_next_higher_assembly.component_quantity	#5305,as_required	S
@630	*	Engineering_next_higher_assembly.reference_designator	#5265,"	S
@631	*	Engineering_next_higher_assembly.unit_of_measure	#5306	S
@632	*	Engineering_next_higher_assembly to	<not_present>	M
		Component_assembly_position (is located at)		
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S

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Id	V	Application Elements	Value	Req
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.2	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@389.5		Design_discipline_product_definition	#4017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#4017,'detailed drawing as planned for STEP conformance testing'	S

Id	V	Application Elements	Value	Req
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.20	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.23	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.5	M
@389.6		Design_discipline_product_definition	#5017	M
@392		Design_discipline_product_definition.creation_date	#5025	S
@393		Design_discipline_product_definition.description	#5017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#5018,'design', #5018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.24	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.27	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.6	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@998.3		Part	#4001	M
@999		Part.part_classification	#4009	S
@1001		Part.part_nomenclature	#4001,'Rod with Conical Tip'	S
@1002		Part.part_number	#4001,'41113'	S
@1003		Part.part_type	#4009	S
@1009		Part to Part_version (has)	@1066.5,@1066.6	M
@1013		Person_organization to Part (is owned by)	@1137.20	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S

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Id	V	Application Elements	Value	Req
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.5		Part_version	#4010	M
@1069		Part_version.make_or_buy_code	#4010,BOUGHT	S
@1072		Part_version.release_status	#4046	S
@1073		Part_version.revision_letter	#4010,'B'	S
@1074		Part_version.security_code	#4033	S
@1075		Part_version to Approval (is approved by)	@157.18	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.5	M
@1080		Person_organization to Part_version (is created by)	@1137.21	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M

Id	V	Application Elements	Value	Req
@1066.6		Part_version	#5010	M
@1071		Part_version.make_or_buy_code	#5010,MADE	S
@1072		Part_version.release_status	#5046	S
@1073		Part_version.revision_letter	#5010,'S-1'	S
@1074		Part_version.security_code	#5033	S
@1075		Part_version to Approval (is approved by)	@157.22	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.6	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.3	M
@1080		Person_organization to Part_version (is created by)	@1137.25	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.3		Supplied_part_version	#5010	M
@1919		Supplied_part_version.certification_required	#4085	S
@1920		Supplied_part_version.supplier_part_number	#4001,'41113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.22	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.6	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1.@1918.2.@1918.3	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.15.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

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The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 15, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim57, aim59, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim275, aim277, aim278, aim288, aim292, aim294, aim296, aim305, aim306, aim316, aim403, aim404, aim406, aim418, aim422, aim431, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 15 above apply.

6.16 CM_Bill_OF_Material 6

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Engineering_next_higher_assembly (a subtype of Engineering_assembly), along with the associated application elements Engineering_next_higher_assembly.component_quantity, Engineering_next_higher_assembly.unit_of_measure, and Engineering_next_higher_assembly.reference_designator. This information is used in relating three sets of basic requirements of the UoF's part_identification, authorization, and source_control in an assembly hierarchy. The top level of the assembly hierarchy represents the entire gasket-rod assembly as itself, related by a generic Engineering_assembly to the second level representing the gasket sub-assembly. This in turn is related via the Engineering_next_higher_assembly to the final level of the assembly hierarchy representing the rod component. Each level in the assembly hierarchy represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

6.16.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 16 - Application elements for CM_Bill_OF_Material 6

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#5293	M
@158		Approval.date	#5297	S

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Id	V	Application Elements	Value	Req
@159		Approval.purpose	#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#5295	S
@157.18		Approval	#4044	M
@158		Approval.date	#4048	S
@159		Approval.purpose	#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	#4046	S
@174		Part_version to Approval (approves)	@1066.5	M
@157.19		Approval	#4053	M
@158		Approval.date	#4057	S
@159		Approval.purpose	#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#4055	S
@157.20		Approval	#4061	M
@158		Approval.date	#4065	S
@159		Approval.purpose	#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#4063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.5	M
@157.21		Approval	#4089	M
@158		Approval.date	#4094	S
@159		Approval.purpose	#4090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#4091	S
@157.22		Approval	#5044	M
@158		Approval.date	#5048	S
@159		Approval.purpose	#5045,'Approved as test part design'	S
@160		Approval.status	#5046	S
@174		Part_version to Approval (approves)	@1066.6	M
@177		Supplied_part_version to Approval (approves)	@1918.6	M
@157.23		Approval	#5053	M
@158		Approval.date	#5057	S
@159		Approval.purpose	#5054,'Approved as unclassified test part design'	S
@160		Approval.status	#5055	S
@157.24		Approval	#5061	M
@158		Approval.date	#5065	S
@159		Approval.purpose	#5062,'Approved as detailed drawing'	S
@160		Approval.status	#5063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.6	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S

Id	V	Application Elements	Value	Req
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.10		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S

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@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 1		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 2		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 3		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 4		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1152				
@1137.1 5		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 7		Person_organization	#3040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 8		Person_organization	#3019	M

Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#5290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2		Person_organization	#4004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.2		Person_organization	#4011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.5	M
@1137.2		Person_organization	#4040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2		Person_organization	#4019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.5	M
@1137.2		Person_organization	#4080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2		Person_organization	#5011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M

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Id	V	Application Elements	Value	Req
@1137.25		Person_organization	#5040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.27		Person_organization	#5019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514.1		Engineering_assembly	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@514.2		Engineering_assembly (as Engineering_next_higher_assembly)	#5265	M
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.3	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.5	M
@627		Engineering_next_higher_assembly	#5265	M
@629		Engineering_next_higher_assembly.component_quantity	#5305,4	S
@630		Engineering_next_higher_assembly.reference_designator	#5265,'designator 5'	S
@631		Engineering_next_higher_assembly.unit_of_measure	#5306	S
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M

Id	V	Application Elements	Value	Req
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.2	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@389.5		Design_discipline_product_definition	#4017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#4017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S

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@398		Design_discipline_product_definition to Approval (is approved by)	@157.20	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.23	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.5	M
@389.6		Design_discipline_product_definition	#5017	M
@392		Design_discipline_product_definition.creation_date	#5025	S
@393		Design_discipline_product_definition.description	#5017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#5018,'design', #5018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.24	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.27	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.6	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@998.3		Part	#4001	M
@999		Part.part_classification	#4009	S
@1001		Part.part_nomenclature	#4001,'Rod with Conical Tip'	S
@1002		Part.part_number	#4001,'41113'	S
@1003		Part.part_type	#4009	S
@1009		Part to Part_version (has)	@1066.5,@1066.6	M
@1013		Person_organization to Part (is owned by)	@1137.20	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M

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@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.5		Part_version	#4010	M
@1069		Part_version.make_or_buy_code	#4010,BOUGHT	S
@1072		Part_version.release_status	#4046	S
@1073		Part_version.revision_letter	#4010,'B'	S
@1074		Part_version.security_code	#4033	S
@1075		Part_version to Approval (is approved by)	@157.18	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.5	M
@1080		Person_organization to Part_version (is created by)	@1137.21	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1066.6		Part_version	#5010	M

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Id	V	Application Elements	Value	Req
@1071		Part_version.make_or_buy_code	#5010,MADE	S
@1072		Part_version.release_status	#5046	S
@1073		Part_version.revision_letter	#5010,'S-1'	S
@1074		Part_version.security_code	#5033	S
@1075		Part_version to Approval (is approved by)	@157.22	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.6	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.3	M
@1080		Person_organization to Part_version (is created by)	@1137.25	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85,#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.3		Supplied_part_version	#5010	M
@1919		Supplied_part_version.certification_required	#4085	S
@1920		Supplied_part_version.supplier_part_number	#4001,'41113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.22	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.6	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1.@1918.2.@1918.3	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.16.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 16, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim57, aim59, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim275, aim277, aim278, aim288, aim292, aim294, aim296, aim305, aim306, aim316, aim403, aim404, aim406, aim418, aim421, aim431, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 16 above apply.

6.17 CM_Bill_Of_Material 7

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF bill_of_material. Specifically, this test case represents the application object Substitute_part. Two different Engineering_promissory_usage (a subtype of Engineering_assembly) objects are used to relating three sets of basic requirements of the UoF's part_identification, authorization, and source_control. A top level gasket assembly is related to a ring gasket component via Engineering_promissory_usage. The top level gasket assembly is also related to an oval gasket component via the other Engineering_promissory_usage. The oval gasket is identified as a substitute for the ring gasket in the top level gasket assembly. Each level of the assembly hierarchy represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_configuration and Product_model contained in the UoF end_item_identification are also included.

6.17.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 17 - Application elements for CM_Bill_Of_Material 7

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#5293	M
@158		Approval.date	#5297	S

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Id	V	Application Elements	Value	Req
@159		Approval.purpose	#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#5295	S
@157.18		Approval	#4044	M
@158		Approval.date	#4048	S
@159		Approval.purpose	#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	#4046	S
@174		Part_version to Approval (approves)	@1066.5	M
@157.19		Approval	#4053	M
@158		Approval.date	#4057	S
@159		Approval.purpose	#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#4055	S
@157.20		Approval	#4061	M
@158		Approval.date	#4065	S
@159		Approval.purpose	#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#4063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.5	M
@157.21		Approval	#4089	M
@158		Approval.date	#4094	S
@159		Approval.purpose	#4090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#4091	S
@157.22		Approval	#5044	M
@158		Approval.date	#5048	S
@159		Approval.purpose	#5045,'Approved as test part design'	S
@160		Approval.status	#5046	S
@174		Part_version to Approval (approves)	@1066.6	M
@177		Supplied_part_version to Approval (approves)	@1918.6	M
@157.23		Approval	#5053	M
@158		Approval.date	#5057	S
@159		Approval.purpose	#5054,'Approved as unclassified test part design'	S
@160		Approval.status	#5055	S
@157.24		Approval	#5061	M
@158		Approval.date	#5065	S
@159		Approval.purpose	#5062,'Approved as detailed drawing'	S
@160		Approval.status	#5063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.6	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S

Id	V	Application Elements	Value	Req
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.10		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S

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Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 1		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 2		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 3		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 4		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1 5		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 7		Person_organization	#3040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 8		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S

Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 9		Person_organization	#5290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 0		Person_organization	#4004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.2 1		Person_organization	#4011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.5	M
@1137.2 2		Person_organization	#4040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 3		Person_organization	#4019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.5	M
@1137.2 4		Person_organization	#4080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2 5		Person_organization	#5011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M

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Id	V	Application Elements	Value	Req
@1137.25		Person_organization	#5040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.27		Person_organization	#5019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514.1		Engineering_assembly (as Engineering_promissory_usage)	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@683.1	*	Engineering_promissory_usage	#3265	S
@514.2		Engineering_assembly (as Engineering_promissory_usage)	#5265	M
@515		Engineering_assembly.security_code	#5283	S
@520	*	Engineering_assembly to Substitute_part (has substitute components of)	@1865	M
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.5	M
@683.2		Engineering_promissory_usage	#5265	S
@1865	*	Substitute_part	#4001	S
@1866	*	Engineering_assembly to Substitute_part (is a substitute for)	@514.2	M
@1867	*	Part to Substitute_part (is a Part object and substitutes for)	@998.1	M
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@401	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1,@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@389.5		Design_discipline_product_definition	#4017	M
@392		Design_discipline_product_definition.creation_date	#4025	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#4017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.20	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.23	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.5	M
@389.6		Design_discipline_product_definition	#5017	M
@392		Design_discipline_product_definition.creation_date	#5025	S
@393		Design_discipline_product_definition.description	#5017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#5018,'design', #5018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.24	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.27	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.6	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1011	*	Part to Substitute_part (has substitutes of)	@1865	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@998.3		Part	#4001	M
@999		Part.part_classification	#4009	S
@1001		Part.part_nomenclature	#4001,'Flat Oval Gasket with Holes'	S
@1002		Part.part_number	#4001,'25553'	S
@1003		Part.part_type	#4009	S
@1009		Part to Part_version (has)	@1066.5,@1066.6	M
@1013		Person_organization to Part (is owned by)	@1137.20	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S

Id	V	Application Elements	Value	Req
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.5		Part_version	#4010	M
@1069		Part_version.make_or_buy_code	#4010,BOUGHT	S
@1072		Part_version.release_status	#4046	S
@1073		Part_version.revision_letter	#4010,'A'	S
@1074		Part_version.security_code	#4033	S
@1075		Part_version to Approval (is approved by)	@157.18	M

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Id	V	Application Elements	Value	Req
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.5	M
@1080		Person_organization to Part_version (is created by)	@1137.21	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1066.6		Part_version	#5010	M
@1071		Part_version.make_or_buy_code	#5010,MADE	S
@1072		Part_version.release_status	#5046	S
@1073		Part_version.revision_letter	#5010,'S-1'	S
@1074		Part_version.security_code	#5033	S
@1075		Part_version to Approval (is approved by)	@157.22	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.6	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.3	M
@1080		Person_organization to Part_version (is created by)	@1137.25	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.3		Supplied_part_version	#5010	M
@1919		Supplied_part_version.certification_required	#4085	S
@1920		Supplied_part_version.supplier_part_number	#4001,'25553'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.22	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.6	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1,@1918.2,@1918.3	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.17.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 17, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim60, aim169, aim182, aim183, aim185, aim186, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim403, aim404, aim406, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim605, aim607, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 17 above apply.

6.18 CM_Effectivity 1

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF effectivity. . Specifically, this test case represents the application object Planned_date_effectivity (a subtype of Planned_effectivity). This effectivity information affects an Engineering_assembly (UoF bill_of_material) and identifies a Product_configuration (UoF end_item_identification). Each level of the assembly hierarchy represents a set of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_model contained in the UoF end_item_identification is also included.

6.18.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

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Input specification:

Table 18 - Application elements for CM_Effectivity 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

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Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#3461	M
@158		Approval.date	#3465	S

Id	V	Application Elements	Value	Req
@159		Approval.purpose	#3462,'Approved planned date effectivity'	S
@160		Approval.status	#3463	S
@167	*	Planned_effectivity to Approval (approves)	@01262	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1152	,	,	,	,
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S

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Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 0		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 1		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 2		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 3		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 4		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1 5		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M

Id	V	Application Elements	Value	Req
@1137.17		Person_organization	#3040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.18		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514		Engineering_assembly	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@517	*	Engineering_assembly to Planned_effectivity (is effective in)	@01262	M
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@1262		Planned_effectivity (as Planned_date_effectivity)	#3400	S
@1263		Planned_effectivity to Approval (is approved by)	@157.17	M
@1264		Engineering_assembly to Planned_effectivity (affects)	@514	M
@1265		Product_configuration to Planned_effectivity (identifies)	@1476	M
@1210	*	Planned_date_effectivity	#3400	M
@1211	*	Planned_date_effectivity.end_date	#3404	S
@1213	*	Planned_date_effectivity.start_date	#3401	S
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1484	*	Product_configuration to Planned_effectivity (has)	@01262	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M

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Id	V	Application Elements	Value	Req
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M

Id	V	Application Elements	Value	Req
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'A'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M

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Id	V	Application Elements	Value	Req
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1	*	Supplied_part_version	#1010	M
@1919	*	Supplied_part_version.certification_required	#85	S
@1920	*	Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922	*	Supplied_part_version to Approval (is approved by)	@157.6	M
@1923	*	Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924	*	Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1.@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.18.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 18, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim57, aim59, aim169, aim182, aim183, aim185, aim186, aim187, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim274, aim275, aim277, aim278, aim292, aim294, aim296, aim305, aim306, aim307, aim308, aim337, aim403, aim404, aim405, aim406, aim407, aim432, aim459, aim460, aim461, aim463, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 18 above apply.

6.19 CM_Effectivity 2

Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF effectivity. . Specifically, this test case represents the application object Planned_sequence_effectivity (a subtype of Planned_effectivity). This effectivity information affects an Engineering_assembly (UoF bill_of_material) and identifies a Product_configuration (UoF end_item_identification). Each level of the assembly hierarchy represents a set of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_model contained in the UoF end_item_identification is also included.

6.19.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 19 - Application elements for CM_Effectivity 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#5293	M
@158		Approval.date	#5297	S

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Id	V	Application Elements	Value	Req
@159		Approval.purpose	#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#5295	S
@157.18		Approval	#4044	M
@158		Approval.date	#4048	S
@159		Approval.purpose	#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	#4046	S
@174		Part_version to Approval (approves)	@1066.5	M
@157.19		Approval	#4053	M
@158		Approval.date	#4057	S
@159		Approval.purpose	#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#4055	S
@157.20		Approval	#4061	M
@158		Approval.date	#4065	S
@159		Approval.purpose	#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#4063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.5	M
@157.21		Approval	#4089	M
@158		Approval.date	#4094	S
@159		Approval.purpose	#4090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#4091	S
@157.22		Approval	#5044	M
@158		Approval.date	#5048	S
@159		Approval.purpose	#5045,'Approved as test part design'	S
@160		Approval.status	#5046	S
@174		Part_version to Approval (approves)	@1066.6	M
@177		Supplied_part_version to Approval (approves)	@1918.6	M
@157.23		Approval	#5053	M
@158		Approval.date	#5057	S
@159		Approval.purpose	#5054,'Approved as unclassified test part design'	S
@160		Approval.status	#5055	S
@157.24		Approval	#5061	M
@158		Approval.date	#5065	S
@159		Approval.purpose	#5062,'Approved as detailed drawing'	S
@160		Approval.status	#5063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.6	M
@157.25		Approval	#3461	M
@158		Approval.date	#3465	S
@159		Approval.purpose	#3462,'Approved planned sequence effectivity'	S
@160		Approval.status	#3463	S

Id	V	Application Elements	Value	Req
@167		Planned_effectivity to Approval (approves)	@01262	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S

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Id	V	Application Elements	Value	Req
@1147		Person_organization to	@389.2	M
		Design_discipline_product_definition (is the creator of)		
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3290	M
)				
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2004	M
1				
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1		Person_organization	#2011	M
2				
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1		Person_organization	#2040	M
3				
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1		Person_organization	#2019	M
4				
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to	@389.3	M
		Design_discipline_product_definition (is the creator of)		
@1137.1		Person_organization	#2080	M
5				
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3011	M
6				
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3040	M
7				
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S

Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 8		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 9		Person_organization	#5290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 0		Person_organization	#4004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.2 1		Person_organization	#4011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.5	M
@1137.2 2		Person_organization	#4040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.2 3		Person_organization	#4019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.5	M
@1137.2 4		Person_organization	#4080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2 5		Person_organization	#5011	M

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Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2 5		Person_organization	#5040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.2 7		Person_organization	#5019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.6	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514.1		Engineering_assembly	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@514.2		Engineering_assembly (as Engineering_next_higher_assembly)	#5265	M
@515		Engineering_assembly.security_code	#5283	S
@517		Engineering_assembly to Planned_effectivity (is effective in)	@01262	M
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.3	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.5	M
@627		Engineering_next_higher_assembly	#5265	M
@629		Engineering_next_higher_assembly.component_quantity	#5305,4	S
@630		Engineering_next_higher_assembly.reference_designator	#5265,'designator 5'	S
@631		Engineering_next_higher_assembly.unit_of_measure	#5306	S
@01262		Planned_effectivity (as Planned_sequence_effectivity)	#3400	S
@1263	*	Planned_effectivity to Approval (is approved by)	@157.25	M
@1264	*	Engineering_assembly to Planned_effectivity (affects)	@514.2	M
@1265	*	Product_configuration to Planned_effectivity (identifies)	@1476	M
@1371	*	Planned_sequence_effectivity	#3400	M
@1372	*	Planned_sequence_effectivity.component_quantity	#5305,4	S
@1373	*	Planned_sequence_effectivity.from_effectivity_id	#3400,'70000'	S
@1374	*	Planned_sequence_effectivity.quantity_unit_of_measure	#5306,#5306	S
@1375	*	Planned_sequence_effectivity.thru_effectivity_id	#3400,'76000'	S
@1476		Product_configuration	#1252	M

Id	V	Application Elements	Value	Req
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1484		Product_configuration to Planned_effectivity (has)	@01262	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.5	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.2	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.14	M

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Id	V	Application Elements	Value	Req
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.18	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@389.5		Design_discipline_product_definition	#4017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#4017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.20	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.23	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.5	M
@389.6		Design_discipline_product_definition	#5017	M
@392		Design_discipline_product_definition.creation_date	#5025	S
@393		Design_discipline_product_definition.description	#5017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#5018,'design', #5018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.24	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.27	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.6	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S

Id	V	Application Elements	Value	Req
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@998.3		Part	#4001	M
@999		Part.part_classification	#4009	S
@1001		Part.part_nomenclature	#4001,'Rod with Conical Tip'	S
@1002		Part.part_number	#4001,'41113'	S
@1003		Part.part_type	#4009	S
@1009		Part to Part_version (has)	@1066.5,@1066.6	M
@1013		Person_organization to Part (is owned by)	@1137.20	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'A'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S

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Id	V	Application Elements	Value	Req
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.5		Part_version	#4010	M
@1069		Part_version.make_or_buy_code	#4010,BOUGHT	S
@1072		Part_version.release_status	#4046	S
@1073		Part_version.revision_letter	#4010,'B'	S
@1074		Part_version.security_code	#4033	S
@1075		Part_version to Approval (is approved by)	@157.18	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.5	M
@1080		Person_organization to Part_version (is created by)	@1137.21	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1066.6		Part_version	#5010	M
@1071		Part_version.make_or_buy_code	#5010,MADE	S
@1072		Part_version.release_status	#5046	S
@1073		Part_version.revision_letter	#5010,'S-1'	S
@1074		Part_version.security_code	#5033	S
@1075		Part_version to Approval (is approved by)	@157.22	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.6	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.3	M
@1080		Person_organization to Part_version (is created by)	@1137.25	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.3		Supplied_part_version	#5010	M
@1919		Supplied_part_version.certification_required	#4085	S
@1920		Supplied_part_version.supplier_part_number	#4001,'41113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.22	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.6	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M

Id	V	Application Elements	Value	Req
@1974	*	Supplier	#83	M
@1975	*	Supplier.supplier_id	#83,'CDI'	S
@1978	*	Supplier to Supplied_part_version (produces)	@1918.1,@1918.2,@1918.3	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.19.2 PostprocessorTest purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 19, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim50, aim51, aim52, aim169, aim182, aim183, aim185, aim186, aim187, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim274, aim275, aim277, aim278, aim288, aim292, aim294, aim296, aim305, aim306, aim316, aim339, aim403, aim404, aim406, aim407, aim418, aim421, aim431, aim432, aim445, aim447, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim721, aim722, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 19 above apply.

6.20 CM_Effectivity 3Test case summary:

The goal of this test case is to test the processing of information requirements as defined by the application elements included in the UoF effectivity. . Specifically, this test case represents the application object Planned_lot_effectivity (a subtype of Planned_effectivity). This effectivity information affects an

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Engineering_assembly (UoF bill_of_material) and identifies a Product_configuration (UoF end_item_identification). Each level of the assembly hierarchy represents a set of basic requirements of the UoF's part_identification, authorization, and source_control. Each set of these basic requirements represents an application object Part having multiple Part_versions. Each Part_version is defined by a Design_discipline_product_definition, and one of the Part_versions corresponds to a Supplied_part_version with an identified Supplier. The Product_model contained in the UoF end_item_identification is also included.

6.20.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 20 - Application elements for CM_Effectivity 3

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#1255	M
@158		Approval.date	#1261	S
@159		Approval.purpose	#1256,'Not yet approved product configuration'	S
@160		Approval.status	#1257	S
@169		Product_configuration to Approval (approves)	@1476	M
@157.3		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.4		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.5		Approval	#89	M
@158		Approval.date	#94	S
@159		Approval.purpose	#90,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#91	S
@157.6		Approval	#1044	M
@158		Approval.date	#1048	S
@159		Approval.purpose	#1045,'Approved as test part design'	S
@160		Approval.status	#1046	S
@174		Part_version to Approval (approves)	@1066.2	M
@177		Supplied_part_version to Approval (approves)	@1918.2	M
@157.7		Approval	#1053	M
@158		Approval.date	#1057	S
@159		Approval.purpose	#1054,'Approved as unclassified test part design'	S
@160		Approval.status	#1055	S
@157.8		Approval	#1061	M
@158		Approval.date	#1065	S
@159		Approval.purpose	#1062,'Approved as detailed drawing'	S
@160		Approval.status	#1063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M

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Id	V	Application Elements	Value	Req
@157.9		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.10		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.3	M
@157.11		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.12		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.13		Approval	#2089	M
@158		Approval.date	#2094	S
@159		Approval.purpose	#2090,'Approved as ISO-9000 certified supplier'	S
@160		Approval.status	#2091	S
@157.14		Approval	#3044	M
@158		Approval.date	#3048	S
@159		Approval.purpose	#3045,'Approved as test part design'	S
@160		Approval.status	#3046	S
@174		Part_version to Approval (approves)	@1066.4	M
@177		Supplied_part_version to Approval (approves)	@1918.4	M
@157.15		Approval	#3053	M
@158		Approval.date	#3057	S
@159		Approval.purpose	#3054,'Approved as unclassified test part design'	S
@160		Approval.status	#3055	S
@157.16		Approval	#3061	M
@158		Approval.date	#3065	S
@159		Approval.purpose	#3062,'Approved as detailed drawing'	S
@160		Approval.status	#3063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.4	M
@157.17		Approval	#3461	M
@158		Approval.date	#3465	S

Id	V	Application Elements	Value	Req
@159		Approval.purpose	#3462,'Approved planned lot effectivity'	S
@160		Approval.status	#3463	S
@167		Planned_effectivity to Approval (approves)	@01262	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#1350	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1137.4		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.5		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.6		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.7		Person_organization	#1011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.8		Person_organization	#1040	M
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.9		Person_organization	#1019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S

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Id	V	Application Elements	Value	Req
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 0		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 1		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.1 2		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.1 3		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.1 4		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.1 5		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 6		Person_organization	#3011	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1150		Person_organization to Part_version (is the creator of)	@1066.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1 7		Person_organization	#3040	M

Id	V	Application Elements	Value	Req
@1138		Person_organization.person_organization_id	(#1042,'CDI-3'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1042	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.1		Person_organization	#3019	M
@1138		Person_organization.person_organization_id	(#1014,'CDI-1'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#1014	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.4	M
@1153		Person_organization to Supplier (identifies)	@1974	M
@514		Engineering_assembly	#3265	M
@515		Engineering_assembly.security_code	#3283	S
@517		Engineering_assembly to Planned_effectivity (is effective in)	@01262	M
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@1262		Planned_effectivity (as Planned_lot_effectivity)	#3400	S
@1263		Planned_effectivity to Approval (is approved by)	@157.17	M
@1264		Engineering_assembly to Planned_effectivity (affects)	@514	M
@1265		Product_configuration to Planned_effectivity (identifies)	@1476	M
@1318	*	Planned_lot_effectivity	#3400	M
@1319	*	Planned_lot_effectivity.lot_number	#3400,'1993-L1'	S
@1320	*	Planned_lot_effectivity.lot_size	#3404,6000	S
@1321	*	Planned_lot_effectivity.lot_size_unit_of_measure	#3405	S
@1476		Product_configuration	#1252	M
@1477		Product_configuration.item_id	#1252,'LX'	S
@1478		Product_configuration.phase_of_product	#1252,'Concept Development'	S
@1479		Product_configuration to Approval (is approved by)	@157.2	M
@1481		Product_configuration to Part (is satisfied by)	@998.1	M
@1484		Product_configuration to Planned_effectivity (has)	@01262	M
@1486		Product_model to Product_configuration (is the configuration of)	@1536	M
@1536		Product_model	#1253	M
@1537		Product_model.model_name	#1253,'Super Gasket'	S
@1538		Product_model to Product_configuration (has)	@1476	M
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.4	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514	M

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Id	V	Application Elements	Value	Req
@411		Person_organization to	@1137.5	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	#1017	M
@392		Design_discipline_product_definition.creation_date	#1025	S
@393		Design_discipline_product_definition.description	#1017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#1018,'design', #1018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.8	M
@411		Person_organization to	@1137.9	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@389.3		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.12	M
@403		Design_discipline_product_definition to	@514	M
		Engineering_assembly (is used as a component in)		
@411		Person_organization to	@1137.14	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@389.4		Design_discipline_product_definition	#3017	M
@392		Design_discipline_product_definition.creation_date	#3025	S
@393		Design_discipline_product_definition.description	#3017,'detailed drawing'	S
@394		Design_discipline_product_definition.discipline_id	(#3018,'design', #3018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.16	M
@411		Person_organization to	@1137.18	M
		Design_discipline_product_definition (is created by)		
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.4	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'55555'	S
@1003		Part.part_type	#9	S
@1009		Part to Part_version (has)	@1066.1,@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1015		Product_configuration to Part (satisfies)	@1476	M
@998.2		Part	#2001	M

Id	V	Application Elements	Value	Req
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S
@1003		Part.part_type	#2009	S
@1009		Part to Part_version (has)	@1066.3,@1066.4	M
@1013		Person_organization to Part (is owned by)	@1137.11	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#1010	M
@1071		Part_version.make_or_buy_code	#1010,MADE	S
@1072		Part_version.release_status	#1046	S
@1073		Part_version.revision_letter	#1010,'S-1'	S
@1074		Part_version.security_code	#1033	S
@1075		Part_version to Approval (is approved by)	@157.6	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.1	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.3		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'A'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.10	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.12	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.4		Part_version	#3010	M
@1071		Part_version.make_or_buy_code	#3010,MADE	S
@1072		Part_version.release_status	#3046	S
@1073		Part_version.revision_letter	#3010,'S-1'	S
@1074		Part_version.security_code	#3033	S
@1075		Part_version to Approval (is approved by)	@157.14	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.4	M
@1078		Part_version to Supplied_part_version (is identified as)	@1918.2	M
@1080		Person_organization to Part_version (is created by)	@1137.16	M

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Id	V	Application Elements	Value	Req
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1918.1		Supplied_part_version	#1010	M
@1919		Supplied_part_version.certification_required	#85	S
@1920		Supplied_part_version.supplier_part_number	#1,'55555'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.6	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.2	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1918.2		Supplied_part_version	#3010	M
@1919		Supplied_part_version.certification_required	#2085	S
@1920		Supplied_part_version.supplier_part_number	#2001,'21113'	S
@1922		Supplied_part_version to Approval (is approved by)	@157.14	M
@1923		Part_version to Supplied_part_version (corresponds to)	@1066.4	M
@1924		Supplier to Supplied_part_version (is produced by)	@1974	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1978		Supplier to Supplied_part_version (produces)	@1918.1,@1918.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

6.20.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 20, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim57, aim59, aim169, aim182, aim183, aim185, aim186, aim187, aim188, aim189, aim194, aim196, aim197, aim199, aim204, aim205, aim207, aim214, aim215, aim216, aim217, aim218, aim223, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim239, aim240, aim273, aim274, aim275, aim277, aim278, aim288, aim292, aim294, aim296, aim305, aim306, aim316, aim338, aim403, aim404, aim406, aim407, aim408, aim418, aim421, aim431, aim432, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim578, aim579, aim585, aim586, aim587, aim588, aim589, aim590, aim592, aim600, aim601, aim603, aim719, aim720, aim785

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 20 above apply.

6.21 NT_Star 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF non_topological_surface_and_wireframe. Specifically, the postprocessor input specification contains instances of **geometrically_bounded_wireframe_shape_representation** and geometric elements used in their construction (CC2). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

Extra details:

The postprocessor input specification in 6.21.3 addresses the test purpose other5. The postprocessor input specification in 6.21.4 addresses the test purpose other10.

6.21.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 21 - Application elements for NT_Star 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	1	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Star Cog'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783	*	Geometric_model_representation (as Non_topological_surface_and_wireframe)	#9810	S
@784	*	Geometric_model_representation to Component_assembly_position (represents components in)	<not_present>	M
@787	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	<not_present>	M
@791	*	Shape to Geometric_model_representation (is the representation of)	@1589	M
@948	*	Non_topological_surface_and_wireframe	#9810, <see figure 1>	S
@1589	*	Shape	#9820	S
@1590	*	Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593	*	Shape to Geometric_model_representation (represents)	@783	M
@1595	*	Shape to Shape_aspect (is composed of)	<not_present>	M
@1918		Supplied_part_version	#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S

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Id	V	Application Elements	Value	Req
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M
@1979	*	Person_organization to Supplier (is identified by)	@1137.5	M

Figure 1 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. The curve labeled A and its five counterparts are **uniform_curves** as defined in ISO 10303-42 and used in ISO 10303-203. All linear dimensions are in inches.

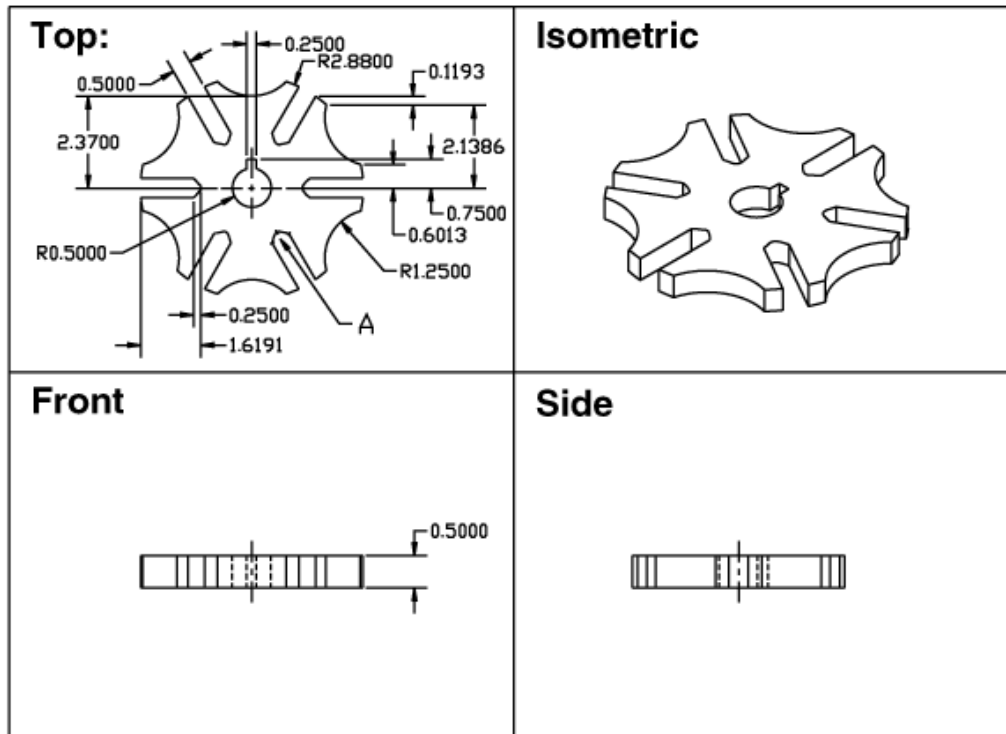


Figure 1 - NT_Star 1

Constraints on values:

C1: The values associated with the application object Non_topological_surface_and_wireframe may be modified at the time of development of the executable test case in a way that the general shape and symmetry of the model is preserved. If modified, the verdict criteria VC3-6 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 1 (see ae116).

VC2: This model has 2 axes of symmetry (see ae116).

VC3: The part represented by this model can be built from a metal stock of circular cross-section of diameter 5.76 inches (see ae116).

VC4: The representation of the model does not reveal a perfect circular hole in the center of the part of diameter 1.0 inches (see ae116).

VC5: The outer rim of this part has 6 circular arcs cut in it, concave with respect to the part. Each of these arcs are parts of circles of diameter 2.50 inches (see ae116).

VC6: The outer rim of this part has six tapered slots cut in it with depth 1.6191 inches (see ae116).

6.21.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 21, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim253, aim292, aim294, aim296, aim305, aim306, aim314, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim437, aim460, aim461, aim462, aim499, aim500, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 21 above apply.

The following specific verdict criteria apply: VC1 - VC6 (see 6.21.1)

6.21.3 Postprocessor 2

Test purposes covered:

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The following other test purpose is covered: other5.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the data section syntax relating to the representation of real numbers and integers specified in ISO 10303-21.

6.21.4 Postprocessor 3

Test purposes covered:

The following other test purpose is covered: other10.

Input specification:

See AnnexC.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS local rule **WR1** on **Direction**.

6.22 NT_Yoyo 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF non_topological_surface_and_wireframe. Specifically, the postprocessor input specification contains instances of **geometrically_bounded_surface_shape_representation** and geometric elements used in their construction (CC2). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.22.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 22 - Application elements for NT_Yoyo 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998	*	Part	#1	M
@999	*	Part.part_classification	(#9, #1102)	S
@1001	*	Part.part_nomenclature	#1,'Solid Yoyo'	S
@1002	*	Part.part_number	#1,'21111'	S
@1003	*	Part.part_type	(#9, #1102)	S
@1005	*	Part to Alternate_part (has an alternate of)	<not_present>	M
@1008	*	Part to Part_version (has)	@1066	M
@1010	*	Part to Substitute_part (has substitutes of)	<not_present>	M
@1013	*	Person_organization to Part (is owned by)	@1137.1	M
@1014	*	Product_configuration to Part (satisfies)	<not_present>	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Non_topological_surface_and_wireframe)	#9260	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@948		Non_topological_surface_and_wireframe	#9260, <see figure 2>	S
@1589		Shape	#9270	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

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Figure 2 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

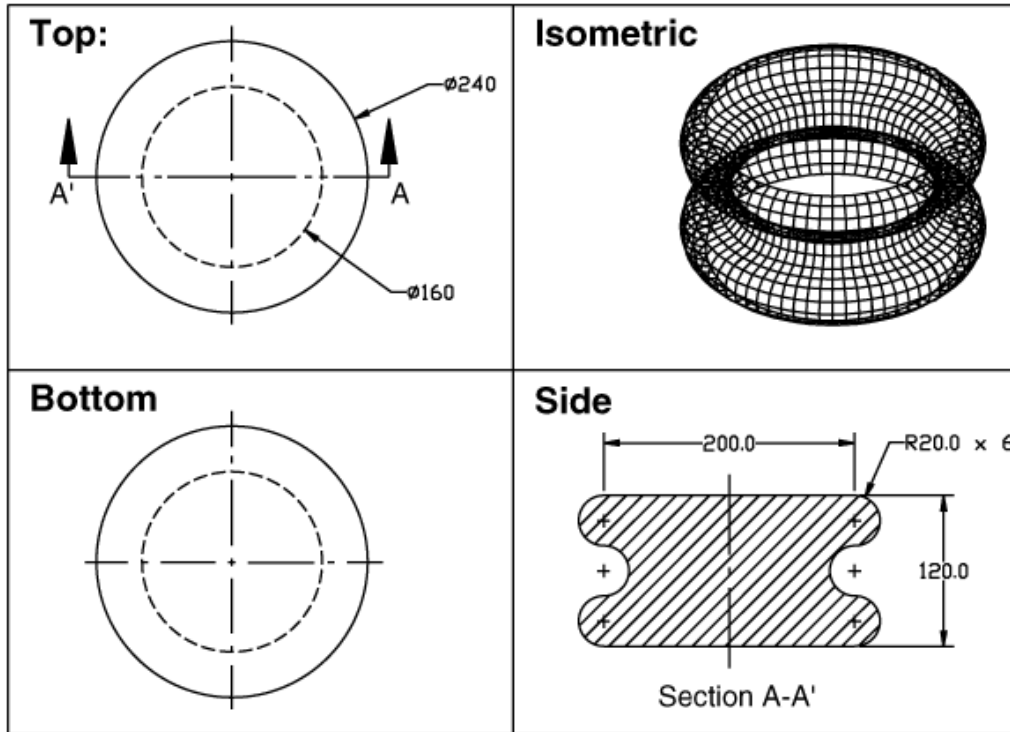


Figure 2 - NT_Yoyo 1

Constraints on values:

C1: The values associated with the application object Non_topological_surface_and_wireframe may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 2 (see ae116).

VC2: This part has two planar circular surfaces with the radii of the surfaces as 100.0 mm (see ae116).

VC3: This part has two planar circular surfaces. If laid horizontally on one of these surfaces, the height of this part will be 120.0 mm (see ae116).

VC4: This part has two planar circular surfaces. Measured along the periphery of the part, the shortest distance between the centers of these two surfaces is 576.99 mm (see ae116).

6.22.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 22, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim254, aim256, aim258, aim266, aim267, aim268, aim269, aim270, aim271, aim272, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim365, aim366, aim367, aim371, aim372, aim373, aim378, aim379, aim381, aim383, aim384, aim401, aim402, aim403, aim404, aim406, aim432, aim433, aim435, aim437, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim570, aim578, aim579, aim581, aim582, aim584, , aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim795, aim811, aim812, aim814, aim816, aim818, aim820, aim821, aim824, aim825, aim830, aim838, aim875, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 22 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.22.1)

6.23 NT_Cone 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF non_topological_surface_and_wireframe. Specifically, the postprocessor input specification contains instances of **geometrically_bounded_surface_shape_representation** and geometric elements used in their construction (CC2). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.23.1 Preprocessor

Test purposes covered:

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The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 23 - Application elements for NT_Cone 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Cone'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066	*	Part_version	#10	M
@1068	*	Part_version.contract_number	<not_present>	M
@1069	*	Part_version.make_or_buy_code	#10,BOUGHT	M
@1072	*	Part_version.release_status	#46	S
@1073	*	Part_version.revision_letter	#10,'A'	S
@1074	*	Part_version.security_code	#33	S
@1075	*	Part_version to Approval (is approved by)	@157.1	M
@1076	*	Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080	*	Person_organization to Part_version (is created by)	@1137.2	M
@1081	*	Work_order to Part_version (is the result of)	<not_present>	M
@1084	*	Work_request to Part_version (is referenced by)	<not_present>	M
@1087	*	Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Non_topological_surface_and_wireframe)	#9160	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@948		Non_topological_surface_and_wireframe	#9160, <see figure 3>	S
@1589		Shape	#9170	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 3 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid

understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in inches, and angular dimensions in degrees.

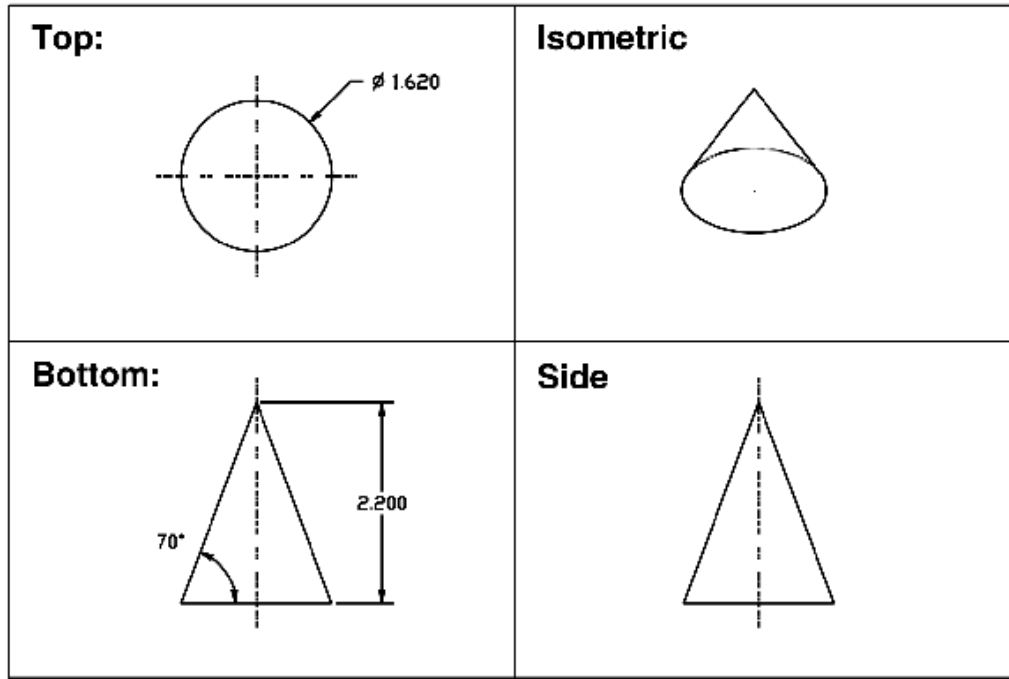


Figure 3 - NT_Cone 1

Constraints on values:

C1: The values associated with the application object `Non_topological_surface_and_wireframe` may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-5 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 3 (see ae116).

VC2: This model contains a circle or circular arc of radius 0.81 inches (see ae116).

VC3: The largest linear (not angular) dimension associated with this model is 2.344 inches (see ae116).

VC4: Assuming this model is a solid, it has 2 distinct faces (see ae116).

VC5: The smallest angular dimension associated with this model is 40.0 degrees (see ae116).

6.23.2 Postprocessor

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Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 23, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim65, aim160, aim161, aim165, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim266, aim270, aim271, aim280, aim291, aim292, aim294, aim296, aim297, aim298, aim301, aim305, aim306, aim314, aim316, aim318, aim319, aim365, aim366, aim368, aim371, aim372, aim373, aim378, aim380, aim381, aim383, aim384, aim397, aim399, aim401, aim403, aim404, aim406, aim432, aim433, aim434, aim435, aim436, aim437, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim566, aim568, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim811, aim812, aim814, aim816, aim818, aim820, aim824, aim825, aim830, aim832, aim838

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 23 above apply.

The following specific verdict criteria apply: VC1 - VC5 (see 6.23.1)

6.24 NT_Cube 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF non_topological_surface_and_wireframe. Specifically, the postprocessor input specification contains an instance of the entity **geometrically_bounded_wireframe_shape_representation** and geometric elements used in its construction (CC2). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.24.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 24 - Application elements for NT_Cube 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1	*	Person_organization	#4	M
@1138	*	Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1140	*	Person_organization.address	<not_present>	M
@1141	*	Person_organization.organization	#7	S
@1142	*	Person_organization.person	#6	S
@1144	*	Person_organization to Part (is the owner of)	@998	M
@1146	*	Person_organization to Design_discipline_product_definition (is the creator of)	<not_present>	M
@1149	*	Person_organization to Part_version (is the creator of)	<not_present>	M
@1152	*	Person_organization to Supplier (identifies)	<not_present>	M
@1155	*	Approval to Person_organization (authorizes)	<not_present>	M
@1158	*	Work_request to Person_organization (is notified of)	<not_present>	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1143	*	Person_organization to Part (is the owner of)	<not_present>	M
@1150	*	Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147	*	Person_organization to Design_discipline_product_definition (is the creator of)	@389	M

Id	V	Application Elements	Value	Req
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153	*	Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Non_topological_surface_and_wireframe)	#9200	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@948		Non_topological_surface_and_wireframe	#9200, <see figure 4>	S
@1589		Shape	#9210	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M

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Id	V	Application Elements	Value	Req
@1979		Person organization to Supplier (is identified by)	@1137.5	M

Figure 4 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm, and angular dimensions in degrees.

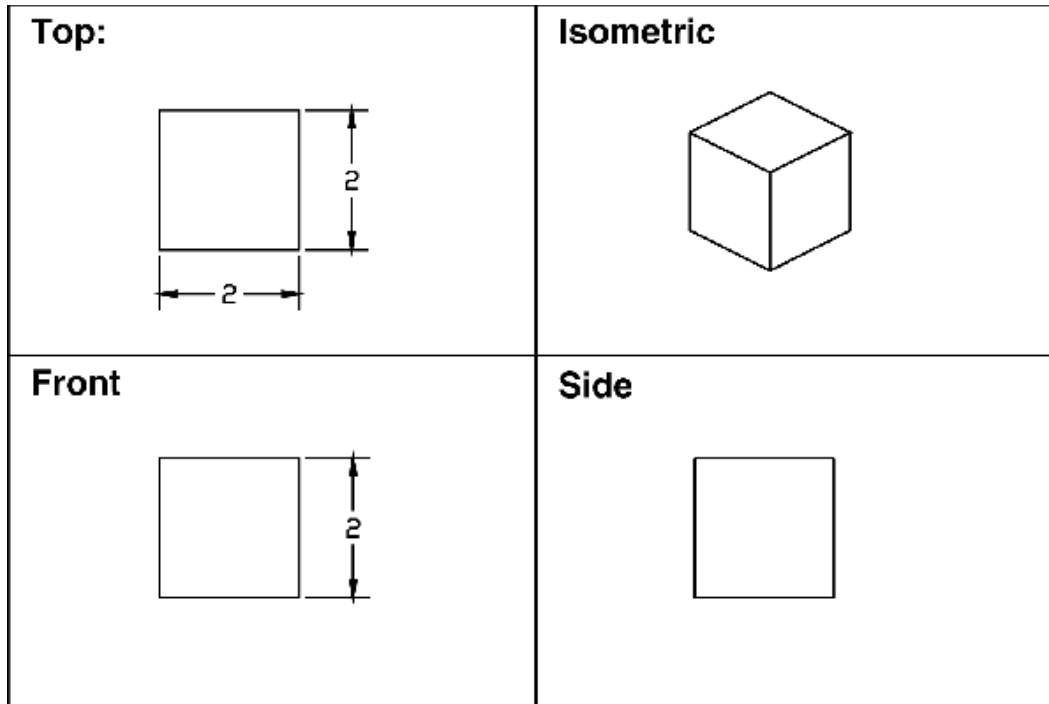


Figure 4 - NT_Cube 1

Constraints on values:

C1: The values associated with the application object `Non_topological_surface_and_wireframe` may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: `gvc1`, `gvc2`, and `gvc3` (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 4 (see ae116).

VC2: The smallest linear dimension associated with this model is 2.0 mm (see ae116).

VC3: Assuming this model is a solid, it possess 6 distinct faces (see ae116).

VC4: Assuming this model is a solid, if a section were cut through it with the cutting plane parallel to the largest face, the resulting face would be a square with sides 2.0 mm x 2.0 mm (see ae116).

6.24.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 24, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim292, aim293, aim295, aim305, aim306, aim314, aim360, aim362, aim364, aim365, aim375, aim376, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim405, aim406, aim407, aim432, aim433, aim435, aim437, aim460, aim461, aim522, aim523, aim524, aim525, aim526, aim527, aim528, aim529, aim530, aim531, aim532, aim533, aim534, aim535, aim536, aim537, aim570, aim576, aim577, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim602, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 24 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.24.1)

6.25 NT_Cube 2

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF non_topological_surface_and_wireframe. Specifically, the postprocessor input specification contains instances of **geometrically_bounded_wireframe_shape_representation** and geometric elements used in their construction (CC2). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.25.1 Preprocessor

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Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 25 - Application elements for NT_Cube 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,"')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Cube with Parabola Face'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071	*	Part_version.make_or_buy_code	#10,MADE	M
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Non_topological_surface_and_wireframe)	#9260	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@948		Non_topological_surface_and_wireframe	#9260, <see figure 5>	S
@1589		Shape	#9270	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 5 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in cm, and angular dimensions in degrees.

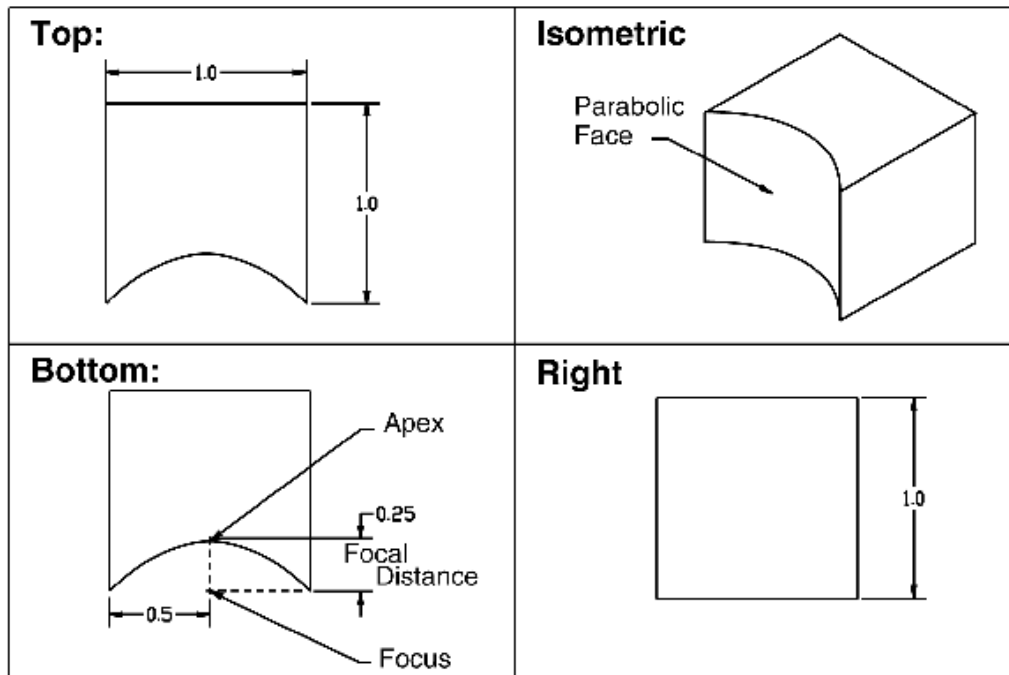


Figure 5 - NT_Cube 2

Constraints on values:

C1: The values associated with the application object `Non_topological_surface_and_wireframe` may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-5 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 5 (see ae116).

VC2: Assuming this model is a solid, it has 6 distinct faces (see ae116).

VC3: One of the faces of this model has a parabolic profile, concave with respect to the rest of the model (see ae116).

VC4: The maximum depth of the concave face is 0.25 cm (see ae116).

VC5: The largest linear (straight line) edge present in this model is 1.0 cm (see ae116).

6.25.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

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The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 25, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim63, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim292, aim294, aim296, aim305, aim306, aim314, aim318, aim319, aim360, aim362, aim364, aim365, aim375, aim376, aim378, aim379, aim381, aim383, aim384, aim401, aim402, aim403, aim404, aim406, aim432, aim433, aim435, aim437, aim459, aim460, aim461, aim462, aim518, aim519, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim570, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim811, aim812, aim813, aim814, aim815, aim816, aim817, aim818, aim819, aim820, aim821, aim822, aim824, aim825, aim830, aim838, aim875, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 25 above apply.

The following specific verdict criteria apply: VC1 - VC5 (see 6.25.1)

6.26 WT_Cube 3

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF wireframe_with_topology. Specifically, the postprocessor input specification contains instances of **shell_based_wireframe_shape_representation** and geometric and topological elements used in their construction (CC3). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.26.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 26 - Application elements for WT_Cube 3

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Cube with Arc Face'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783	*	Geometric_model_representation (as Wireframe_with_topology)	#9370	S
@784	*	Geometric_model_representation to Component_assembly_position (represents components in)	<not_present>	M
@787	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	<not_present>	M
@791	*	Shape to Geometric_model_representation (is the representation of)	@1589	M
@2132	*	Wireframe_with_topology	#9370, <see figure 6>	S
@1589	*	Shape	#9470	S
@1590	*	Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593	*	Shape to Geometric_model_representation (represents)	@783	M
@1595	*	Shape to Shape_aspect (is composed of)	<not_present>	M
@1918		Supplied_part_version	#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S

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Id	V	Application Elements	Value	Req
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M
@1979	*	Person_organization to Supplier (is identified by)	@1137.5	M

Figure 6 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in cm, and angular dimensions in degrees.

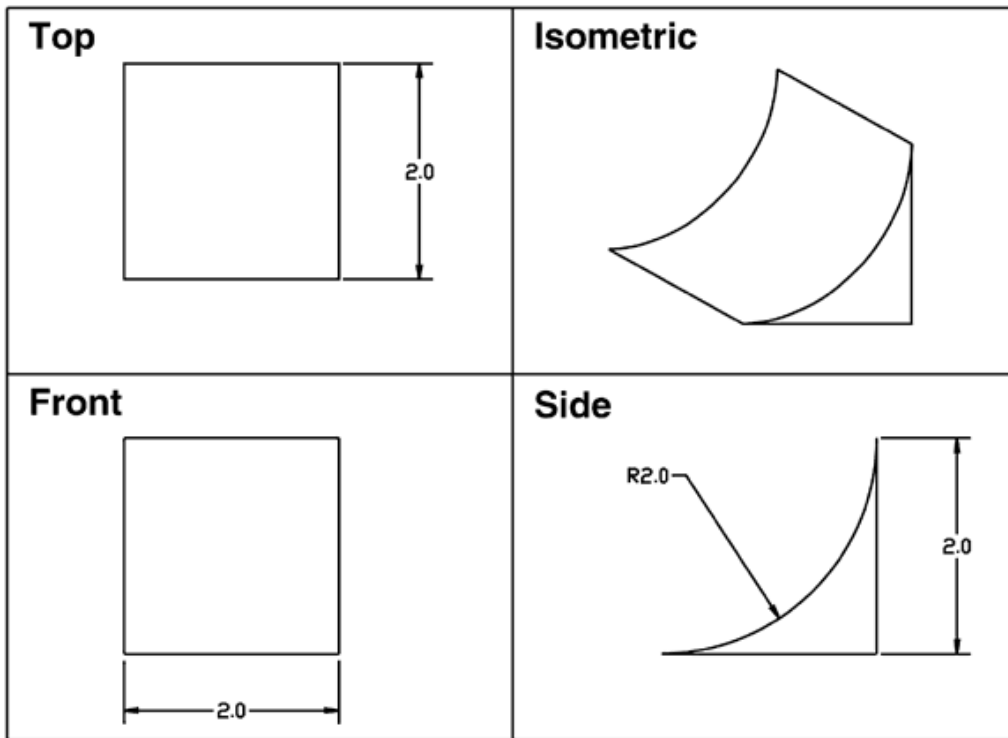


Figure 6 - WT_Cube 3

Constraints on values:

C1: The values associated with the application object Wireframe_with_topology may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-3 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 6 (see ae275).

VC2: This model has 5 distinct faces (see ae275).

VC3: The area of the largest face in this model is 6.2832 sq. cm (see ae275).

6.26.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 26, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim333, aim334, aim336, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim402, aim403, aim404, aim406, aim432, aim433, aim435, aim437, aim460, aim461, aim462, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim739, aim740, aim743, aim744, aim745, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim875, aim879, aim888, aim890

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 26 above apply.

The following specific verdict criteria apply: VC1 - VC3 (see 6.26.1)

6.27 WT_Wedge 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF wireframe_with_topology. Specifically, the postprocessor input specification contains instance of **edge_based_wireframe_shape_representation** and geometric and topological elements used in their construction (CC3). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.27.1 Preprocessor

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Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 27 - Application elements for WT_Wedge 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Wedge'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Wireframe_with_topology)	#9290	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@2132		Wireframe_with_topology	#9290, <see figure 7>	S
@1589		Shape	#9300	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 7 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in inches.

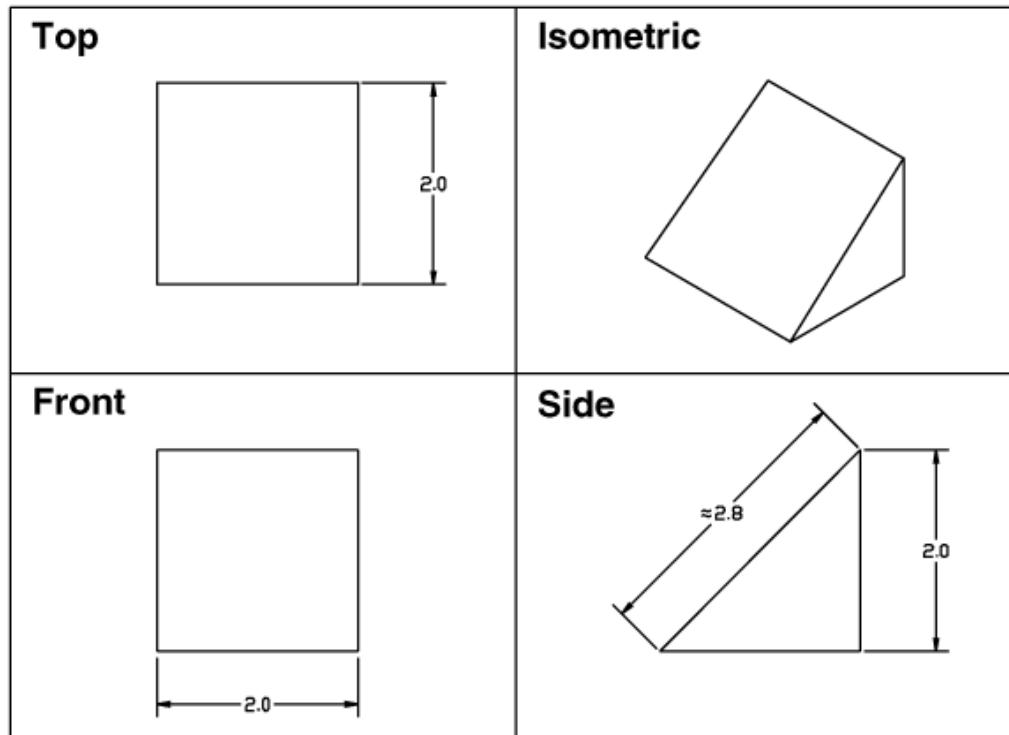


Figure 7 - WT_Wedge 1

Constraints on values:

C1: The values associated with the application object Wireframe_with_topology may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 7 (see ae275).

VC2: The part represented by the model can to be built from a metal stock of square cross-section of side 2.0 inches (see ae275).

VC3: This model have 5 distinct faces (see ae275).

VC4: The area of the largest face in this model 5.657 sq. in (see ae275).

6.27.2 Postprocessor

Test purposes covered:

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The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 27, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim281, aim283, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim325, aim327, aim328, aim329, aim331, aim332, aim333, aim365, aim378, aim379, aim381, aim383, aim384, aim397, aim399, aim401, aim402, aim403, aim404, aim406, aim432, aim433, aim434, aim435, aim437, aim459, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim570, aim571, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim875, aim879, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 27 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.27.1)

6.28 MS_Widget 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF manifold_surface_with_topology. Specifically, the postprocessor input specification contains instances of **manifold_surface_shape_representation** and geometric and topological elements used in their construction (CC4). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.28.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 28 - Application elements for MS_Widget 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Block with Channel'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783	*	Geometric_model_representation (as Manifold_surface_with_topology)	#9481	S
@784	*	Geometric_model_representation to Component_assembly_position (represents components in)	<not_present>	M
@787	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	<not_present>	M
@791	*	Shape to Geometric_model_representation (is the representation of)	@1589	M
@848	*	Manifold_surface_with_topology	#9481, <see figure 8>	S
@1589	*	Shape	#9490	S
@1590	*	Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593	*	Shape to Geometric_model_representation (represents)	@783	M
@1595	*	Shape to Shape_aspect (is composed of)	<not_present>	M
@1918		Supplied_part_version	#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S

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Id	V	Application Elements	Value	Req
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M
@1979	*	Person_organization to Supplier (is identified by)	@1137.5	M

Figure 8 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

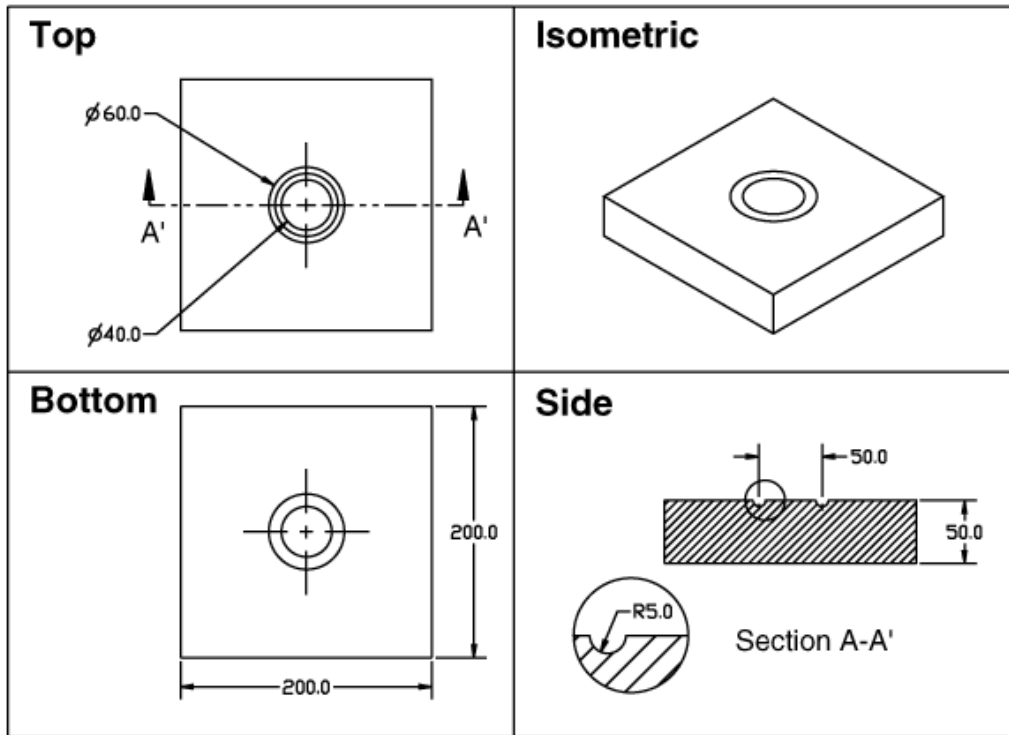


Figure 8 - MS_Widget 1

Constraints on values:

C1: The values associated with the application object `Manifold_surface_with_topology` may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 8 (see ae114).

VC2: The part represented by the model can to be built from a standard metal stock of square cross-section with side: 200 mm (see ae114).

VC3: This model have 8 distinct faces (see ae114).

VC4: The area of the largest face in this model 400.0 sq. mm (see ae114).

6.28.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 28, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim65, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim292, aim294, aim296, aim305, aim306, aim314, aim318, aim319, aim331, aim332, aim334, aim335, aim336, aim344, aim345, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim402, aim403, aim404, aim406, aim410, aim411, aim432, aim433, aim435, aim437, aim456, aim458, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim734, aim736, aim737, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim875, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 28 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.28.1)

6.29 FB_Hex_Prism 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF `faceted_boundary_representation`. Specifically, the postprocessor input specification contains instances of **faceted_brep_shape_representation** and geometric and topological elements used in their construction (CC5). This test case also presents configuration control information (CC1) as defined in UoFs `authorization`, `part_identification`, and `source_control`.

6.29.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 29 - Application elements for FB_Hex_Prism 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Solid Hexagonal Cylinder'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Faceted_B_rep)	#9280	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@733	*	Faceted_B_rep	#9280, <see figure 9>	S
@1589	*	Shape	#9290	S
@1590	*	Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593	*	Shape to Geometric_model_representation (represents)	@783	M
@1595	*	Shape to Shape_aspect (is composed of)	<not_present>	M
@1918		Supplied_part_version	#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M
@1979	*	Person_organization to Supplier (is identified by)	@1137.5	M

Figure 9 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in inches.

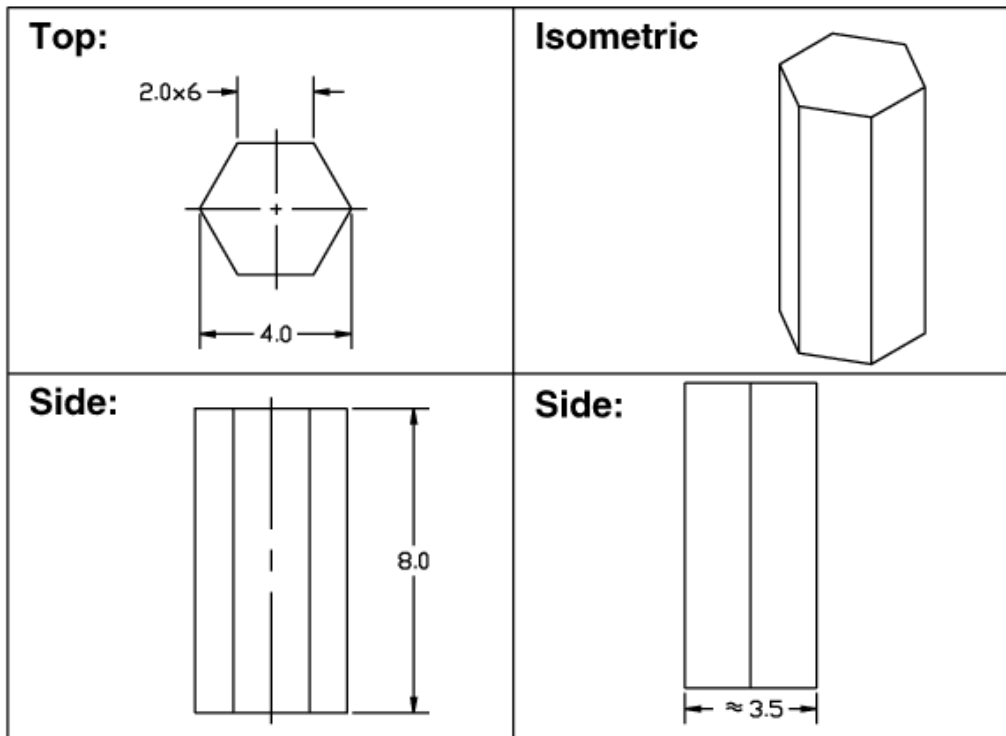


Figure 9 - FB_Hex_Prism 1

Constraints on values:

C1: The values associated with the application object Faceted_B_rep may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 9 (see ae97).

VC2: The part represented by this model can be built from a standard metal stock of hexagonal cross-section with side: 2.0 inches (see ae97).

VC3: This model has 8 distinct faces (see ae97).

VC4: The volume of the solid represented by this model is 83.138 cu.in (see ae97).

6.29.2 Postprocessor

Test purposes covered:

ISO/TR 10303-303(E)

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 29, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim251, aim253, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim347, aim348, aim349, aim350, aim351, aim353, aim354, aim355, aim356, aim357, aim365, aim378, aim379, aim381, aim383, aim384, aim397, aim399, aim401, aim403, aim404, aim406, aim432, aim433, aim434, aim435, aim437, aim460, aim461, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim574, aim575, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim753, aim766, aim767, aim768, aim772, aim825, aim830, aim838

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 29 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.29.1)

6.30 FB_Hex_Prism 2

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF `facetted_boundary_representation`. Specifically, the postprocessor input specification contains instances of **faceted_brep_shape_representation**, **brep_with_voids** and geometric and topological elements used in their construction (CC5). This test case also presents configuration control information (CC1) as defined in UoFs `authorization`, `part_identification`, and `source_control`.

6.30.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 30 - Application elements for FB_Hex_Prism 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Hexagonal Cylinder with Square Void'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783	*	Geometric_model_representation (as Faceted_b_rep)	#9380	S
@784	*	Geometric_model_representation to Component_assembly_position (represents components in)	<not_present>	M
@787	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	<not_present>	M
@791	*	Shape to Geometric_model_representation (is the representation of)	@1589	M
@733		Faceted_b_rep	#9380, <see figure 10>	S
@1589		Shape	#9390	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

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Figure 10 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in inches.

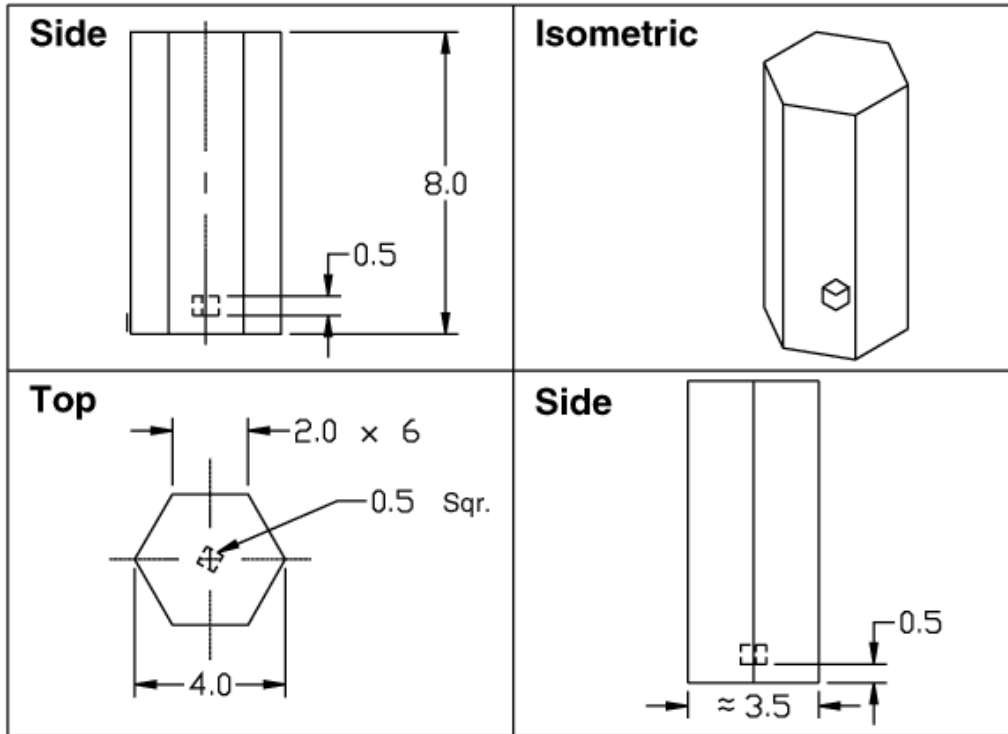


Figure 10 - FB_Hex_Prism 2

Constraints on values:

C1: The values associated with the application object Faceted_B_rep may be modified at the time of development of the executable test case in a way that the general shape of the model is preserved. If modified, the verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 10 (see ae97).

VC2: This model has 8 distinct external faces (see ae97).

VC3: This model has a void in it which can be characterized as a cube with sides 0.5 x 0.5 x 0.5 in (see ae97).

VC4: This model has a void in it, whose centroid is located 7.25 in from one of the hexagonal faces (see ae97).

6.30.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 30, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim63, aim64, aim65, aim166, aim167, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim251, aim253, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim347, aim348, aim349, aim350, aim351, aim353, aim354, aim355, aim356, aim357, aim365, aim378, aim379, aim381, aim383, aim384, aim397, aim399, aim401, aim403, aim404, aim406, aim432, aim433, aim434, aim435, aim437, aim459, aim460, aim461, aim462, aim494, aim498, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim574, aim575, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim753, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 30 above apply.

The following specific verdict criteria apply: VC1 - WC4 (see 6.30.1)

6.31 AB_Gasket 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in their construction (CC6). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

Extra details:

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The postprocessor input specification in 6.31.3 addresses the test purpose other5. The postprocessor input specification in 6.31.4 addresses the test purpose other8.

6.31.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 31 - Application elements for AB_Gasket 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Flat Ring Gasket'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783	*	Geometric_model_representation (as Advanced_b_rep)	#9240	S
@784	*	Geometric_model_representation to Component_assembly_position (represents components in)	<not_present>	M
@787	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	<not_present>	M
@791	*	Shape to Geometric_model_representation (is the representation of)	@1589	M
@55	*	Advanced_b_rep	#9240, <see figure 11>	S
@1589	*	Shape	#9250	S
@1590	*	Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593	*	Shape to Geometric_model_representation (represents)	@783	M
@1595	*	Shape to Shape_aspect (is composed of)	<not_present>	M
@1918		Supplied_part_version	#10	M
@1921	*	Supplied_part_version.supplier_part_number	<not_present>	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977	*	Supplier to Supplied_part_version (produces)	@1918	M

Id	V	Application Elements	Value	Req
@1979	*	Person organization to Supplier (is identified by)	@1137.5	M

Figure 11 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

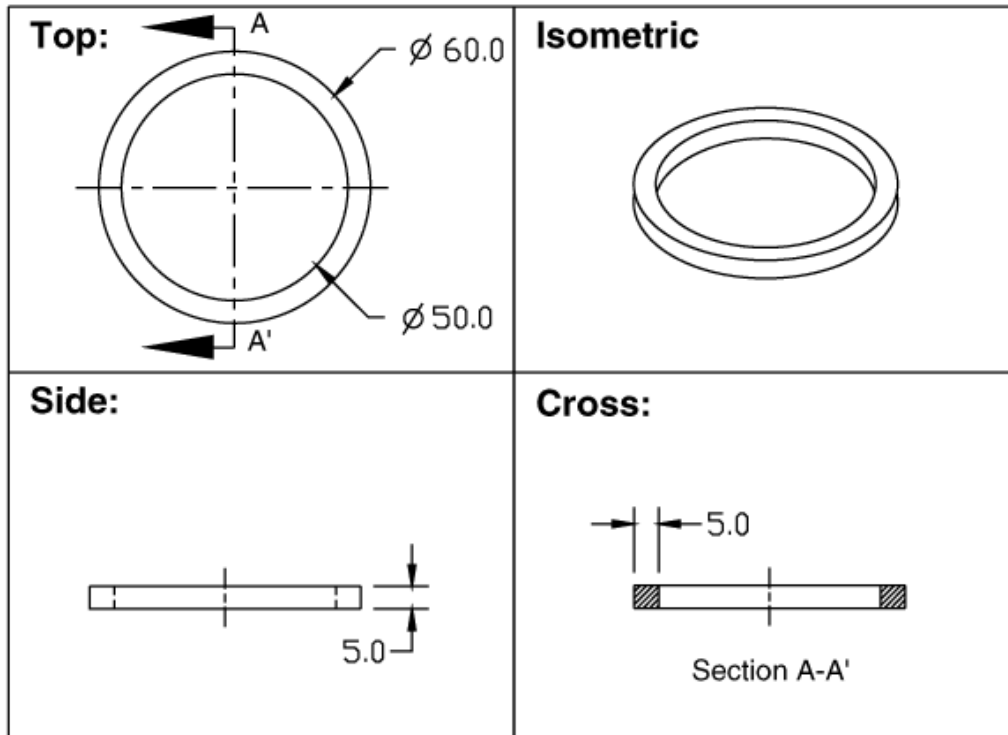


Figure 11 - AB_Gasket 1

Constraints on values:

C1: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 11 (see ae6).

VC2: The radius of the central hole of the gasket is 25.0 mm (see ae6).

VC3: The thickness of the gasket is 5.0 mm (see ae6).

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VC4: The outer diameter of the gasket 60.0 mm (see ae6).

6.31.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 31, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim253, aim292, aim294, aim296, aim305, aim306, aim314, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim437, aim460, aim461, aim499, aim500, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 31 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.31.1)

6.31.3 Postprocessor 2

Test purposes covered:

The following other test purpose is covered: other5.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc4.

Extra details:

This input specification tests an IUT's compliance with the data section syntax relating to the representation of real numbers and integers specified in ISO 10303-21.

6.31.4 Postprocessor 3

Test purposes covered:

The following other test purpose is covered: other8.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criterion applies: gvc5.

Extra details:

This input specification tests an IUT's compliance with the AIM EXPRESS global rule **Subtype_mandatory_shape_representation**.

6.32 AB_Gasket 2

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in their construction (CC6). The instances of **face** used to construct the model have a larger number of bounds than in the test case AB_Gasket 1. This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.32.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 32 - Application elements for AB_Gasket 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1152		Person_organization to Supplier (identifies)	@1974.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M

Id	V	Application Elements	Value	Req
@392		Design_discipline_product_definition.creation_date	#25,#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#9370	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#9370, <see figure 12>	S
@1589		Shape	#9380	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 12 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

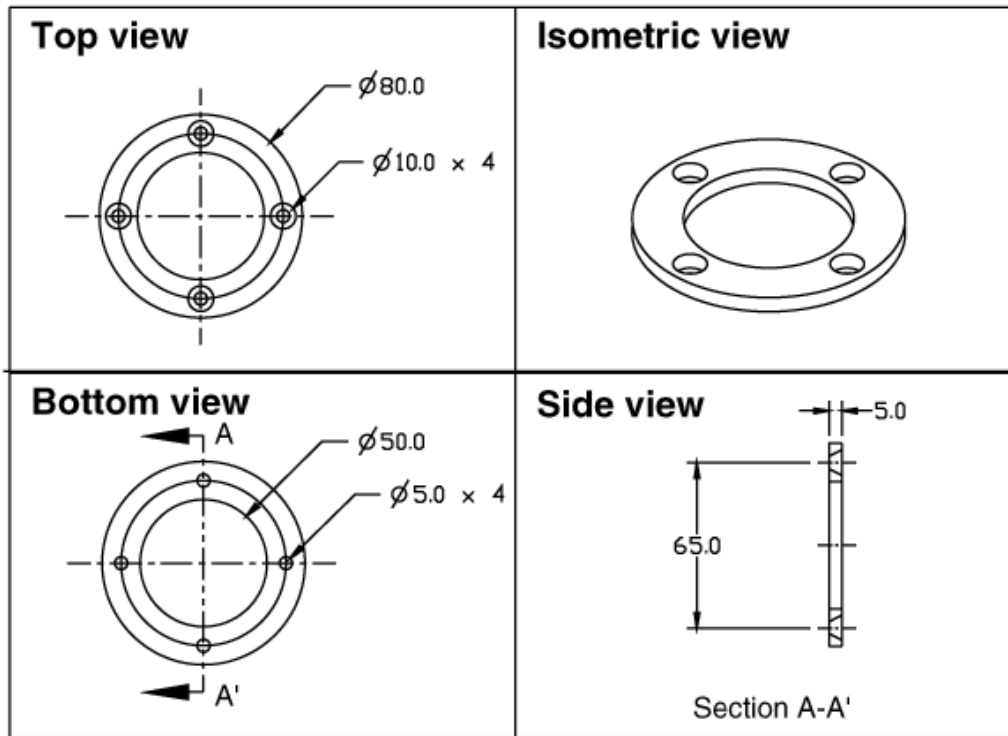


Figure 12 - AB_Gasket 2

Constraints on values:

C1: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-7 would have to be modified accordingly.

Specific verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

- VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 12 (see ae6).
- VC2: The radius of the central hole of the gasket is 50.0 mm (see ae6).
- VC3: The thickness of the gasket is 5.0 mm (see ae6).
- VC4: Excluding the central hole there are 4 holes present on the body (see ae6).
- VC5: The 4 holes in the gasket have a conical profile (see ae6).
- VC6: At their narrowest points, the diameters of the 4 holes in the gasket are 5.0 mm in diameter (see ae6).
- VC7: The outer diameter of the gasket is 80.0 mm (see ae6).

6.32.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 32, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim253, aim292, aim293, aim295, aim305, aim306, aim314, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim405, aim406, aim407, aim409, aim432, aim433, aim435, aim437, aim460, aim461, aim499, aim500, aim522, aim523, aim524, aim525, aim526, aim527, aim528, aim529, aim530, aim531, aim532, aim533, aim534, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim602, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 32 above apply.

The following specific verdict criteria apply: VC1 - VC7 (see 6.32.1)

6.33 AB_Gasket 3

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF `advanced_boundary_representation`. Specifically, the postprocessor input specification contains instances of **`advanced_brep_shape_representation`** and geometric and topological elements used in their construction (CC6). The geometric elements used to construct the model include **`ellipse`**. This test case also presents configuration control information (CC1) as defined in UoFs `authorization`, `part_identification`, and `source_control`.

6.33.1 Preprocessor

Test purposes covered:

ISO/TR 10303-303(E)

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 33 - Application elements for AB_Gasket 3

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

ISO/TR 10303-303(E)

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Cube'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#9430	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#9430, <see figure 13>	S
@1589		Shape	#9440	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 13 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm. The centers of the two ellipses (the intersection points of the major and minor axes) from which the inner and outer semi-ellipses have been constructed (see view labelled top view or bottom view) are **not** coincident. The

center of each ellipse lies at the intersection of its minor axis and the dashed line shown in the top or bottom views.

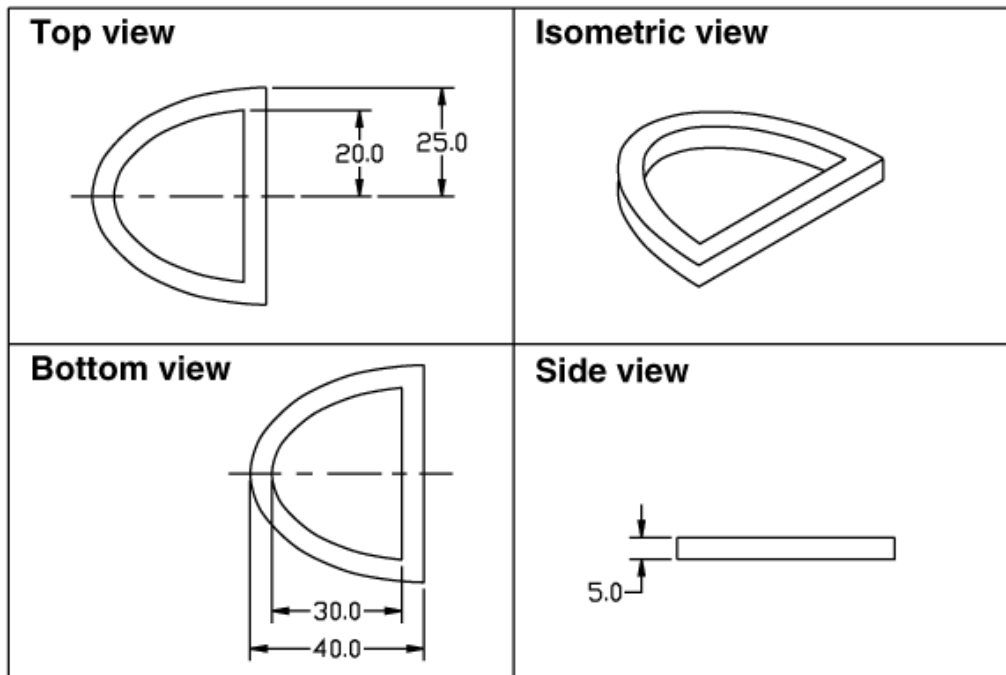


Figure 13 - AB_Gasket 3

Constraints on values:

C1: The values associated with the application object `Advanced_B_rep` may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: `gvc1`, `gvc2`, and `gvc3` (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

(see `ae6`): The model realized by the IUT generally correspond in shape to the model represented in figure 13.

VC2: The central hole of the gasket is a semi-ellipse with a major axis of 60.0 mm (see `ae6`).

VC3: The thickness of the gasket is 5.0 mm (see `ae6`).

VC4: Excluding the central hole, there are no holes present on the body of the gasket (see `ae6`).

6.33.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: `g1`, `g4`, and `g5`.

ISO/TR 10303-303(E)

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 33, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim251, aim253, aim292, aim294, aim296, aim305, aim306, aim314, aim318, aim319, aim331, aim332, aim333, aim334, aim336, aim340, aim341, aim344, aim345, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim402, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim437, aim459, aim460, aim461, aim462, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim794, aim825, aim830, aim838, aim875, aim879, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 33 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.33.1)

6.34 AB_Rod_Aspect 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in their construction (CC6). The geometric elements used in the construction of the model also include **elementary surfaces** like **cylindrical surface** and **conical surface**. This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.34.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 34 - Application elements for AB_Rod_Aspect 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@998		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Rod with Conical Tip'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783.1		Geometric_model_representation (as Advanced_b_rep)	#9370	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589.1	M
@55.1		Advanced_b_rep	#9370, <see figure 14>	S
@783.2		Geometric_model_representation (as Advanced_b_rep)	#9390	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589.2	M
@55.2		Advanced_b_rep	#9390, <see figure 14>	S
@1589.1		Shape	#9400	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783.1	M
@1589.2		Shape	#1202	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M
@1918		Supplied_part_version	#10	M
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

ISO/TR 10303-303(E)

Figure 14 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

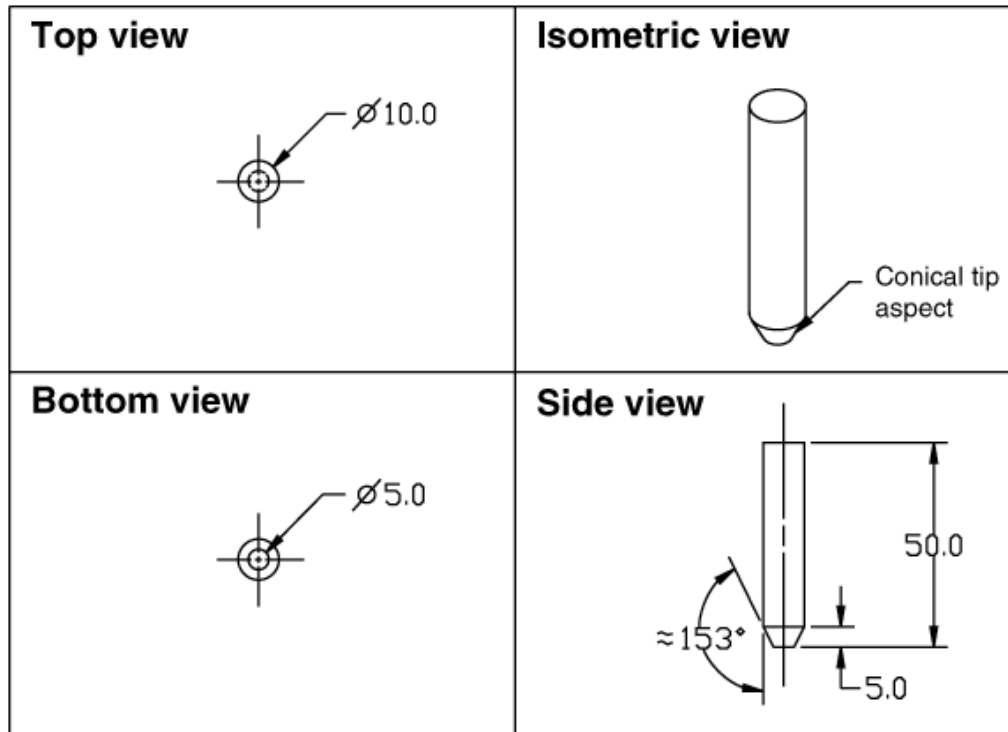


Figure 14 - AB_Rod_Aspect 1

Constraints on values:

C1: The values associated with the application object `Advanced_B_rep` may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 14 (see ae6).

VC2: The cross-sectional diameter of the rod measured anywhere in its cylindrical portion is 10.0 mm (see ae6).

VC3: The length of the rod is 50.0 mm (see ae6).

VC4: The tapered part of the rod is a cone of base radius 5.0 mm truncated by a plane parallel to the base and 5.0 mm away from it (see ae6).

6.34.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 34, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim35, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim253, aim292, aim293, aim295, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim405, aim406, aim407, aim409, aim432, aim433, aim435, aim437, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim524, aim525, aim526, aim527, aim528, aim529, aim530, aim531, aim532, aim533, aim534, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim602, aim603, aim704, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 34 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.34.1)

6.35 AB_Gasket_Rod_Assembly 1

Test case summary:

This test case tests the processing of information elements as defined in the UoFs advanced_boundary_representation, authorization, part_identification, and source_control, bill_of_material. Specifically, the postprocessor input specifications contain instances of **advanced_brep_shape_representation**, the geometric and topological elements used in their construction (CC6), and **next_assembly_usage_occurance** for representing the assembly (CC1). Two postprocessor input specifications are presented to test two different approaches for representing assemblies.

6.35.1 Preprocessor

ISO/TR 10303-303(E)

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 35 - Application elements for AB_Gasket_Rod_Assembly

Id	V	Application Elements	Value	Req
@157.1		Approval	1-2:#44	M
@158		Approval.date	1-2:#48	S
@159		Approval.purpose	1-2:#45,'Approved as initial STEP test case part'	S
@160		Approval.status	1-2:#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	1-2:#53	M
@158		Approval.date	1-2:#57	S
@159		Approval.purpose	1-2:#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#55	S
@157.3		Approval	1-2:#61	M
@158		Approval.date	1-2:#65	S
@159		Approval.purpose	1-2:#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	1-2:#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	1-2:#2044	M
@158		Approval.date	1-2:#2048	S
@159		Approval.purpose	1-2:#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	1-2:#2046	S
@174		Part_version to Approval (approves)	@1066.2	M
@157.5		Approval	1-2:#2053	M
@158		Approval.date	1-2:#2057	S
@159		Approval.purpose	1-2:#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#2055	S
@157.6		Approval	1-2:#2061	M
@158		Approval.date	1-2:#2065	S
@159		Approval.purpose	1-2:#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	1-2:#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.7		Approval	1-2:#3293	M
@158		Approval.date	1-2:#3297	S
@159		Approval.purpose	1-2:#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#3295	S
@157.8		Approval	1-2:#4044	M
@158		Approval.date	1-2:#4048	S
@159		Approval.purpose	1-2:#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	1-2:#4046	S

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Id	V	Application Elements	Value	Req
@174		Part_version to Approval (approves)	@1066.3	M
@157.9		Approval	1-2:#4053	M
@158		Approval.date	1-2:#4057	S
@159		Approval.purpose	1-2:#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#4055	S
@157.10		Approval	1-2:#4061	M
@158		Approval.date	1-2:#4065	S
@159		Approval.purpose	1-2:#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	1-2:#4063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.3	M
@157.11		Approval	1-2:#5293	M
@158		Approval.date	1-2:#5297	S
@159		Approval.purpose	1-2:#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	1-2:#5295	S
@1137.1		Person_organization	1-2:#4	M
@1138		Person_organization.person_organization_id	1-2:(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	1-2:#11	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#1-2:14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	1-2:#40	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@1137.4		Person_organization	1-2:#19	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	1-2:#80	M
@1138		Person_organization.person_organization_id	1-2:(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	1-2:#83	S
@1142		Person_organization.person	1-2:#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.6		Person_organization	1-2:#2004	M
@1138		Person_organization.person_organization_id	1-2:(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#6	S

Id	V	Application Elements	Value	Req
@1144		Person_organization to Part (is the owner of)	@998.2	M
@1137.7		Person_organization	1-2:#2011	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1137.8		Person_organization	1-2:#2040	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@1137.9		Person_organization	1-2:#2019	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1137.10		Person_organization	1-2:#2080	M
@1138		Person_organization.person_organization_id	1-2:(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	1-2:#83	S
@1142		Person_organization.person	1-2:#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.11		Person_organization	1-2:#3290	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@1137.12		Person_organization	1-2:#4004	M
@1138		Person_organization.person_organization_id	1-2:(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.13		Person_organization	1-2:#4011	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.14		Person_organization	1-2:#4040	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@1137.15		Person_organization	1-2:#4019	M
@1138		Person_organization.person_organization_id	1-2:(#14,'222-002'),(#7,'NVI-Michigan')	S

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Id	V	Application Elements	Value	Req
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.3	M
@1137.15		Person_organization	1-2:#4080	M
@1138		Person_organization.person_organization_id	1-2:(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	1-2:#83	S
@1142		Person_organization.person	1-2:#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@1137.17		Person_organization	1-2:#5290	M
@1138		Person_organization.person_organization_id	1-2:(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	1-2:#7	S
@1142		Person_organization.person	1-2:#42	S
@335.1	*	Component_assembly_position	1-2:#1230	M
@336	*	Component_assembly_position.transformation	(#1230, #1234)	S
@337	*	Engineering_next_assembly to Component_assembly_position (has)	@514.2	M
@338	*	Geometric_model_representation to Component_assembly_position (is a component in)	@783.2	M
@339	*	Geometric_model_representation to Component_assembly_position (is an assembly in)	@783.1	M
@335.2		Component_assembly_position	1-2:#1231	M
@336		Component_assembly_position.transformation	(#1231, #1234)	S
@337		Engineering_next_assembly to Component_assembly_position (has)	@514.2	M
@338		Geometric_model_representation to Component_assembly_position (is a component in)	@783.2	M
@339		Geometric_model_representation to Component_assembly_position (is an assembly in)	@783.1	M
@335.3		Component_assembly_position	1-2:#1232	M
@336		Component_assembly_position.transformation	(#1232, #1234)	S
@337		Engineering_next_assembly to Component_assembly_position (has)	@514.2	M
@338		Geometric_model_representation to Component_assembly_position (is a component in)	@783.2	M
@339		Geometric_model_representation to Component_assembly_position (is an assembly in)	@783.1	M
@335.4		Component_assembly_position	1-2:#1233	M
@336		Component_assembly_position.transformation	(#1233, #1234)	S
@337		Engineering_next_assembly to Component_assembly_position (has)	@514.2	M
@338		Geometric_model_representation to Component_assembly_position (is a component in)	@783.1	M
@339		Geometric_model_representation to Component_assembly_position (is an assembly in)	@783.1	M
@514.1		Engineering_assembly (as Engineering_next_higher_assembly)	1-2:#3265	M

Id	V	Application Elements	Value	Req
@515		Engineering_assembly.security_code	1-2:#3283	S
@522		Design_discipline_product_definition to Engineering_assembly (assembly is defined for)	@389.1	M
@523		Design_discipline_product_definition to Engineering_assembly (component is defined by)	@389.2	M
@627.1		Engineering_next_higher_assembly	1-2:#3265	M
@630		Engineering_next_higher_assembly.reference_designator	1-2:#3265,"	S
@514.2		Engineering_assembly (as Engineering_next_higher_assembly)	1-2:#5265	M
@515		Engineering_assembly.security_code	1-2:#5283	S
@522		Design_discipline_product_definition to Engineering_assembly (assembly is defined for)	@389.2	M
@523		Design_discipline_product_definition to Engineering_assembly (component is defined by)	@389.3	M
@627.2		Engineering_next_higher_assembly	1-2:#5265	M
@629		Engineering_next_higher_assembly.component_quantity	1-2:#5305,4	S
@630		Engineering_next_higher_assembly.reference_designator	1-2:#5265,'designator 5'	S
@631		Engineering_next_higher_assembly.unit_of_measure	1-2:#5306	S
@633	*	Engineering_next_assembly to Component_assembly_position (is located at)	@335.1, @335.2, @335.3, @335.4	M
@389.1		Design_discipline_product_definition	1-2:#17	M
@392		Design_discipline_product_definition.creation_date	1-2:#25	S
@393		Design_discipline_product_definition.description	1-2:#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@389.2		Design_discipline_product_definition	1-2:#2017	M
@392		Design_discipline_product_definition.creation_date	1-2:#2025	S
@393		Design_discipline_product_definition.description	1-2:#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.6	M
@400		Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.2	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M

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Id	V	Application Elements	Value	Req
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.1	M
@389.3		Design_discipline_product_definition	1-2:#4017	M
@392		Design_discipline_product_definition.creation_date	1-2:#4025	S
@393		Design_discipline_product_definition.description	1-2:#4017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.10	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.15	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.2	M
@998.1		Part	1-2:#1	M
@999		Part.part_classification	1-2:#9	S
@1001		Part.part_nomenclature	1-2:#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	1-2:#1,'11111'	S
@1003		Part.part_type	1-2:#9	S
@1008		Part to Part_version (has)	@1066.1	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@998.2		Part	1-2:#2001	M
@999		Part.part_classification	1-2:#2009	S
@1001		Part.part_nomenclature	1-2:#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	1-2:#2001,'21113'	S
@1003		Part.part_type	1-2:#2009	S
@1008		Part to Part_version (has)	@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.6	M
@998.3		Part	1-2:#4001	M
@999		Part.part_classification	1-2:#4009	S
@1001		Part.part_nomenclature	1-2:#4001,'Rod with Conical Tip'	S
@1002		Part.part_number	1-2:#4001,'41113'	S
@1003		Part.part_type	1-2:#4009	S
@1008		Part to Part_version (has)	@1066.3	M
@1013		Person_organization to Part (is owned by)	@1137.12	M
@1066.1		Part_version	1-2:#10	M
@1069		Part_version.make_or_buy_code	1-2:#10,BOUGHT	S
@1072		Part_version.release_status	1-2:#46	S
@1073		Part_version.revision_letter	1-2:#10,'A'	S
@1074		Part_version.security_code	1-2:#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M

Id	V	Application Elements	Value	Req
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	1-2:#2010	M
@1069		Part_version.make_or_buy_code	1-2:#2010,BOUGHT	S
@1072		Part_version.release_status	1-2:#2046	S
@1073		Part_version.revision_letter	1-2:#2010,'B'	S
@1074		Part_version.security_code	1-2:#2033	S
@1075		Part_version to Approval (is approved by)	@157.4	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.3		Part_version	1-2:#4010	M
@1069		Part_version.make_or_buy_code	1-2:#4010,BOUGHT	S
@1072		Part_version.release_status	1-2:#4046	S
@1073		Part_version.revision_letter	1-2:#4010,'B'	S
@1074		Part_version.security_code	1-2:#4033	S
@1075		Part_version to Approval (is approved by)	@157.8	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.3	M
@1080		Person_organization to Part_version (is created by)	@1137.13	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@783.1		Geometric_model_representation (as Advanced_b_rep)	1-2:#9370	S
@789	*	Geometric_model_representation to Component_assembly_position (represents an assembly in)	@335.1,@335.2,@335.3,@335.4	M
@791		Shape to Geometric_model_representation (is the representation of)	@1589.1	M
@55.1		Advanced_b_rep	1-2:#9370, <see figure 15>	S
@783.2		Geometric_model_representation (as Advanced_b_rep)	1-2:#10370	S
@785	*	Geometric_model_representation to Component_assembly_position (represents components in)	@335.1, @335.2, @335.3, @335.4	M
@791		Shape to Geometric_model_representation (is the representation of)	@1589.2	M
@55.2		Advanced_b_rep	1-2:#10370, <see figure 15>	S
@1589.1		Shape	1-2:#11000	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.2	M
@1593		Shape to Geometric_model_representation (represents)	@783.1	M
@1589.2		Shape	1-2:#11020	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.3	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M
@1918.1		Supplied_part_version	1-2:#10	M
@1918.2		Supplied_part_version	1-2:#2010	M
@1918.3		Supplied_part_version	1-2:#4010	M
@1974		Supplier	1-2:#83	M
@1975		Supplier.supplier_id	1-2:#83,'CDI'	S

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Id	V	Application Elements	Value	Req
@1978		Supplier to Supplied part version (produces)	@1918.1.@1918.2.@1918.3	M

Figure 15 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

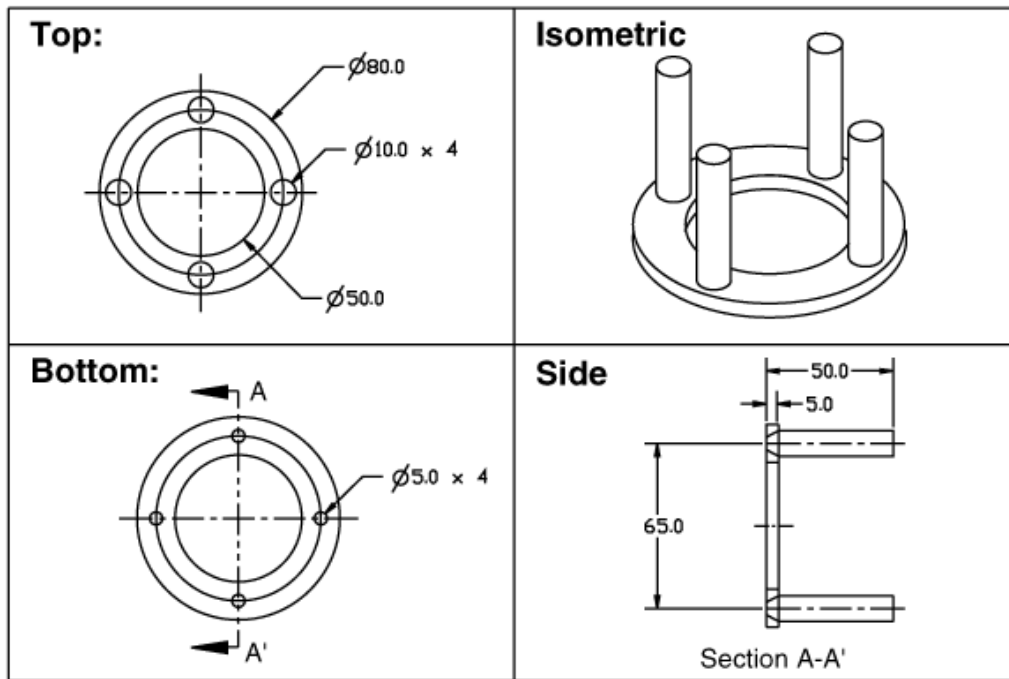


Figure 15 - AB_Gasket_Rod_Assembly

Constraints on values:

C1, C2: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-10 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally corresponds in shape to the model represented in figure 15 (see ae6).

VC2: The four rods in this assembly are identical in their geometric characteristics (see ae6).

VC3: The overall lengths of each of the rods is 50.0 mm (see ae6).

VC4: A cone of base radius 5.0 mm truncated by the horizontal plane 5.0 mm from the base best describes the conical portion of each of the rods (see ae6).

VC5: The length of the cylindrical portion of the rod is 45.0 mm (see ae6).

VC6: The diameter of the central hole of the gasket is 50.0 cm (see ae6).

VC7: The thickness of the gasket is 5.0 mm (see ae6).

VC8: Excluding the central hole, four holes are present on the body of the gasket (see ae6).

VC9: Each of the holes in the gasket (in which the rods sit) have a conical profile (see ae6).

VC10: The outer diameter of the gasket is 80.0 mm (see ae6).

6.35.2 Postprocessor 1

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 35, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim35, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim249, aim250, aim251, aim253, aim288, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim413, aim418, aim421, aim431, aim432, aim433, aim435, aim437, aim445, aim446, aim447, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim612, aim613, aim704, aim705, aim706, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See AnnexC.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 35 above apply.

The following specific verdict criteria apply: VC1 - VC10 (see 6.35.1)

6.35.3 Postprocessor 2

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 35, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

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The following AIM test purposes are covered: aim33, aim34, aim35, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim249aim250, aim251, aim253, aim288, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim418, aim421, aim431, aim432, aim433, aim435, aim437, aim445, aim446, aim447, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim612, aim613, aim704, aim705, aim708, aim709, aim719, aim720, aim729, aim733, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 35 above apply.

The following specific verdict criteria apply: VC1 - VC10 (see 6.35.1)

6.36 AB_Weight 1

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in their construction (CC6). The geometric elements used in the construction of the model also include **spherical surface**. This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.36.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 36 - Application elements for AB_Weight 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003', #7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002', #7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,")	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389	*	Design_discipline_product_definition	#17	M
@391	*	Design_discipline_product_definition.cad_filename	<not_present>	M

Id	V	Application Elements	Value	Req
@392	*	Design_discipline_product_definition.creation_date	#25	S
@393	*	Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394	*	Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@395	*	Design_discipline_product_definition to Additional_design_information (has)	<not_present>	M
@398	*	Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@399	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	<not_present>	M
@402	*	Design_discipline_product_definition to Engineering_assembly (is used as a component in)	<not_present>	M
@405	*	Design_discipline_product_definition to Engineering_make_from (is the base design in)	<not_present>	M
@408	*	Design_discipline_product_definition to Engineering_make_from (is the resultant design in)	<not_present>	M
@411	*	Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412	*	Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1	M
@999		Part.part_classification	(#9, #1102)	S
@1001		Part.part_nomenclature	#1,'Solid Paperweight'	S
@1002		Part.part_number	#1,'21111'	S
@1003		Part.part_type	(#9, #1102)	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10	M
@1071		Part_version.make_or_buy_code	#10,MADE	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#9200	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#9200, <see figure 16>	S
@1589		Shape	#9210	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10	M

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Id	V	Application Elements	Value	Req
@1974		Supplier	#83	M
@1975		Supplier.supplier_id	#83,"	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 16 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

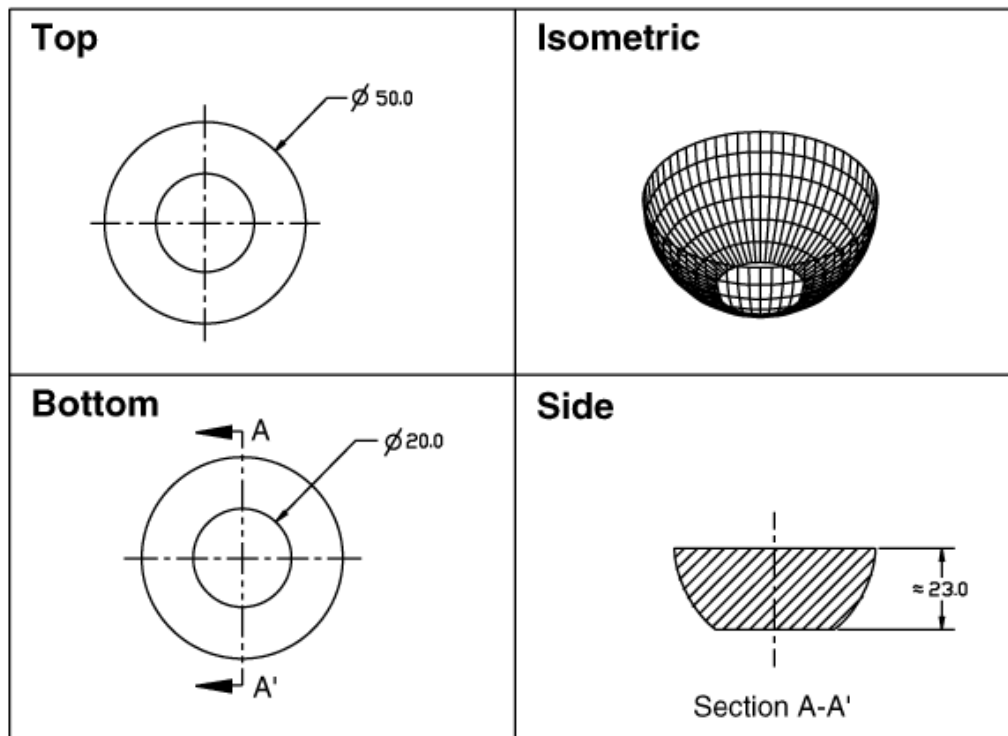


Figure 16 - AB_Weight 1

Constraints on values:

C1: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 16 (see ae6).

VC2: This model can be described as a half-sphere of radius 25.0 mm truncated about 23 mm from the center (see ae6).

VC3: The diameter of the model is 50.0 mm at its widest point (see ae6).

VC4: The diameter of the model 20.0 mm at its narrowest point (see ae6).

6.36.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 36, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim63, aim64, aim65, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim253, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim333, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim437, aim459, aim460, aim461, aim462, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim581, aim582, aim584, aim587, aim589, aim592, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim776, aim825, aim830, aim838, aim879, aim885, aim886

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 36 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.36.1)

6.37 AB_Revolved_Object 1

Test case summary:

This test case tests the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in their construction (CC6). The geometric elements used in the construction of the model include **b_spline_curves** and

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b_spline_surfaces. This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.37.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 37 - Application elements for AB_Revolved_Object 1

Id	V	Application Elements	Value	Req
@157.1		Approval	#44000	M
@158		Approval.date	#48000	S
@159		Approval.purpose	#45000,'Approved as initial STEP test case part'	S
@160		Approval.status	#46000	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53000	M
@158		Approval.date	#57000	S
@159		Approval.purpose	#54000,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55000	S
@157.3		Approval	#61000	M
@158		Approval.date	#65000	S
@159		Approval.purpose	#62000,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63000	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4000	M
@1138		Person_organization.person_organization_id	(#6000,'333-003'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#6000	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#14000,#14000	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40000	M
@1138		Person_organization.person_organization_id	(#42000,'555-005'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#42000	S
@1137.4		Person_organization	#19000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#14000	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80000	M
@1138		Person_organization.person_organization_id	(#82000,'CDI-2'),(#83000,'CDI')	S
@1141		Person_organization.organization	#83000	S
@1142		Person_organization.person	#82000	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17000	M
@392		Design_discipline_product_definition.creation_date	#25000	S

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Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17000,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18000,'design', #18000,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1999	M
@999		Part.part_classification	#9000	S
@1001		Part.part_nomenclature	#1999,'Solid Revolution Object 1'	S
@1002		Part.part_number	#1999,'11111'	S
@1003		Part.part_type	#9000	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10000	M
@1069		Part_version.make_or_buy_code	#10000,BOUGHT	S
@1072		Part_version.release_status	#46000	S
@1073		Part_version.revision_letter	#10000,'A'	S
@1074		Part_version.security_code	#33000	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#1905	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#1905, <see figure 17>	S
@1589		Shape	#1920	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10000	M
@1974		Supplier	#83000	M
@1975		Supplier.supplier_id	#83000,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 17 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in metres. In the subfigure labeled *Front*, the semi-circular arc of radius 0.07 m represents a hemispherical cut-out (hollow).

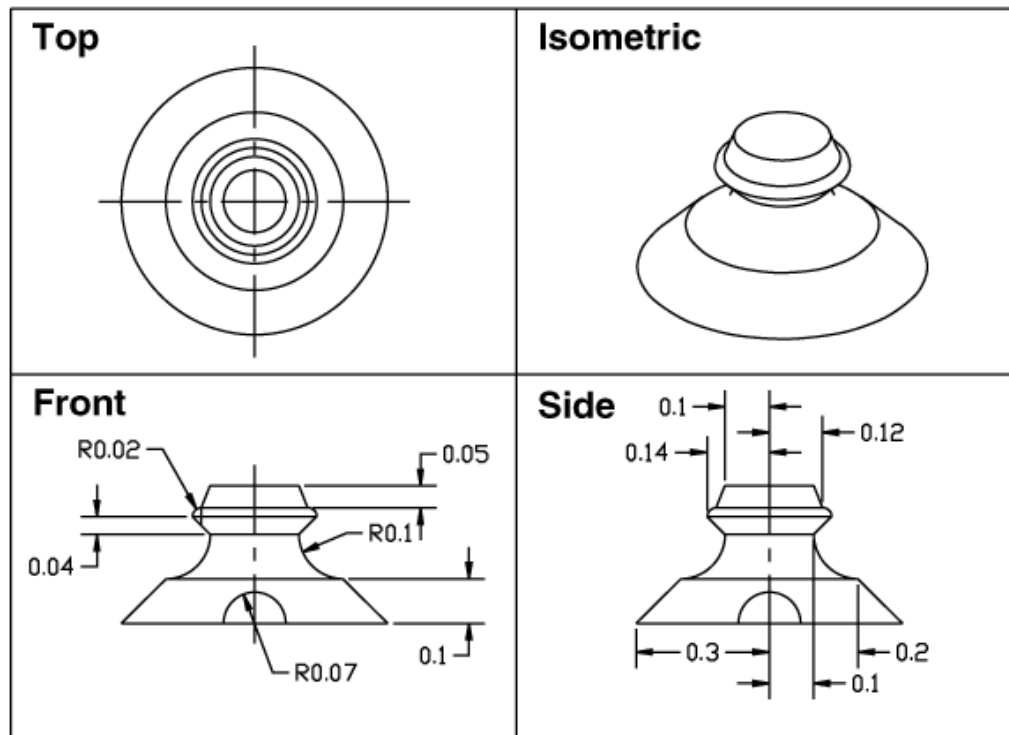


Figure 17 - AB_Revolved_Object 1

Constraints on values:

C1: The values associated with the application object `Advanced_B_rep` may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-4 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: `gvc1`, `gvc2`, and `gvc3` (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 17 and the accompanying description (see `ae6`).

VC2: This model can be created by revolving a composite curve profile a full 360 degrees about an axis. The Length of this axis is 0.31 m (see `ae6`).

VC3: Only two segments of the composite curve profile are straight line parallel to each other. The lengths of these segments are 0.1 m and 0.3 m (see `ae6`).

VC4: Three segments of the composite curve profile are circular arcs of radii 0.02 m, 0.1 m, and 0.07 m (see `ae6`).

6.37.2 Postprocessor

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Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 37, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim70, aim71, aim76, aim80, aim83, aim84, aim85, aim89, aim94, aim95, aim102, aim109, aim112, aim115, aim116, aim117, aim118, aim119, aim123, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim251, aim253, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim336, aim344, aim346, aim347, aim348, aim349, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim436, aim437, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim566, aim567, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 37 above apply.

The following specific verdict criteria apply: VC1 - VC4 (see 6.37.1)

6.38 AB_Swept_Object

Test case summary:

This test case tests the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation** and geometric and topological elements used in its construction (CC6). The geometric elements used in the construction of the model include **b_spline_curves** and **b_spline_surfaces**. This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.38.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 38 - Application elements for AB_Swept_Object

Id	V	Application Elements	Value	Req
@157.1		Approval	#44000	M
@158		Approval.date	#48000	S
@159		Approval.purpose	#45000,'Approved as initial STEP test case part'	S
@160		Approval.status	#46000	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53000	M
@158		Approval.date	#57000	S
@159		Approval.purpose	#54000,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55000	S
@157.3		Approval	#61000	M
@158		Approval.date	#65000	S
@159		Approval.purpose	#62000,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63000	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4000	M
@1138		Person_organization.person_organization_id	(#6000,'333-003'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#6000	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1137.2		Person_organization	#11000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000,#7000	S
@1142		Person_organization.person	#14000,#14000	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40000	M
@1138		Person_organization.person_organization_id	(#42000,'555-005'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#42000	S
@1137.4		Person_organization	#19000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#14000	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80000	M
@1138		Person_organization.person_organization_id	(#82000,'CDI-2'),(#83000,'CDI')	S
@1141		Person_organization.organization	#83000	S
@1142		Person_organization.person	#82000	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17000	M
@392		Design_discipline_product_definition.creation_date	#25000	S

Id	V	Application Elements	Value	Req
@393		Design_discipline_product_definition.description	#17000,'detailed drawing as planned for STEPconformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18000,'design', #18000,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1999	M
@999		Part.part_classification	#9000	S
@1001		Part.part_nomenclature	#1999,'Revolved Solid Object'	S
@1002		Part.part_number	#1999,'11111'	S
@1003		Part.part_type	#9000	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10000	M
@1069		Part_version.make_or_buy_code	#10000,BOUGHT	S
@1072		Part_version.release_status	#46000	S
@1073		Part_version.revision_letter	#10000,'A'	S
@1074		Part_version.security_code	#33000	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#513	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#513, <see figure 18>	S
@1589		Shape	#1920	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10000	M
@1974		Supplier	#83000	M
@1975		Supplier.supplier_id	#83000,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 18 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in metres.

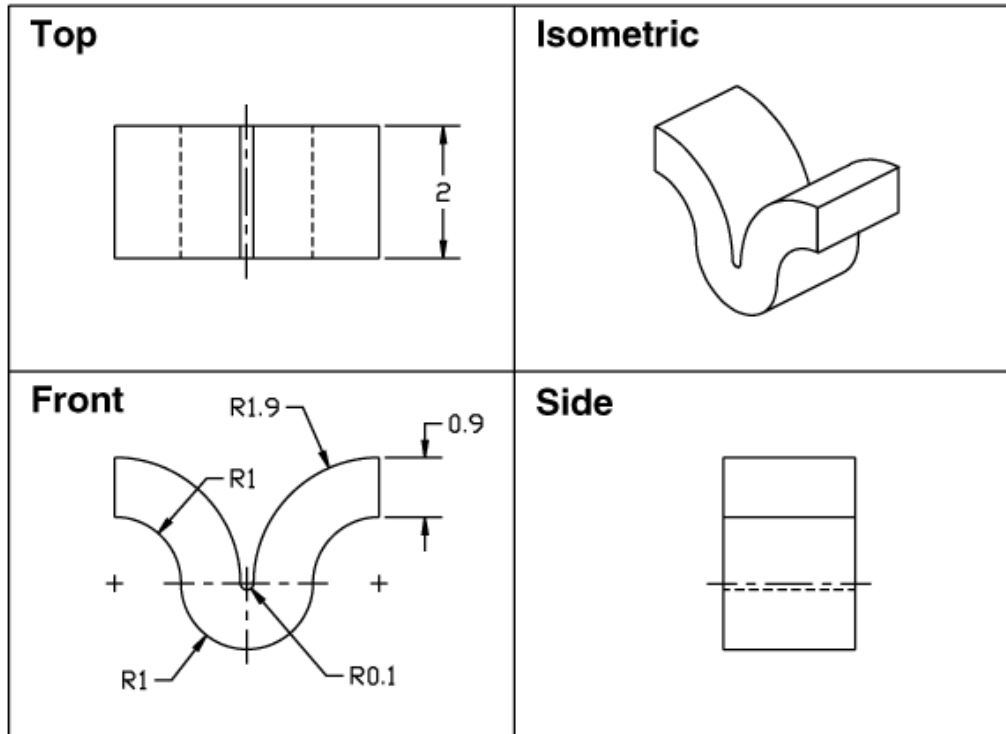


Figure 18 - AB_Swept_Object

Constraints on values:

C1: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-3 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 18 (see ae6).

VC2: This model can be created by sweeping a closed composite curve profile consisting of circular arcs and straight lines (all in the same plane) along a straight line. The length of this line is 0.2 m (see ae6).

VC3: The volume of this model is 0.0113098 cu.m (see ae6).

6.38.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 38, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim34, aim36, aim37, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim70, aim71, aim76, aim80, aim83, aim84, aim85, aim89, aim94, aim95, aim102, aim109, aim112, aim115, aim116, aim117, aim118, aim119, aim123, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim251, aim253, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim336, aim347, aim348, aim349, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim432, aim433, aim435, aim436, aim437, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim566, aim567, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 38 above apply.

The following specific verdict criteria apply: VC1 - VC3 (see 6.38.1)

6.39 AB_Revolved_Object_With_Void

Test case summary:

The goal of this test case is to test the processing of information elements as defined in the UoF advanced_boundary_representation. Specifically, the postprocessor input specification contains instances of **advanced_brep_shape_representation**, **brep_with_voids** and geometric and topological elements used in their construction (CC6). This test case also presents configuration control information (CC1) as defined in UoFs authorization, part_identification, and source_control.

6.39.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

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In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 39 - Application elements for AB_Revolved_Object_With_Void

Id	V	Application Elements	Value	Req
@157.1		Approval	#44000	M
@158		Approval.date	#48000	S
@159		Approval.purpose	#45000,'Approved as initial STEP test case part'	S
@160		Approval.status	#46000	S
@174		Part_version to Approval (approves)	@1066	M
@157.2		Approval	#53000	M
@158		Approval.date	#57000	S
@159		Approval.purpose	#54000,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55000	S
@157.3		Approval	#61000	M
@158		Approval.date	#65000	S
@159		Approval.purpose	#62000,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63000	S
@172		Design_discipline_product_definition to Approval (approves)	@389	M
@1137.1		Person_organization	#4000	M
@1138		Person_organization.person_organization_id	(#6000,'333-003'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#6000	S
@1144		Person_organization to Part (is the owner of)	@998	M
@1153		Person_organization to Supplier (identifies)	@1974.1	M
@1137.2		Person_organization	#11000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#14000	S
@1150		Person_organization to Part_version (is the creator of)	@1066	M
@1137.3		Person_organization	#40000	M
@1138		Person_organization.person_organization_id	(#42000,'555-005'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#42000	S
@1137.4		Person_organization	#19000	M
@1138		Person_organization.person_organization_id	(#14000,'222-002'),(#7000,'NVI-Michigan')	S
@1141		Person_organization.organization	#7000	S
@1142		Person_organization.person	#14000	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389	M
@1137.5		Person_organization	#80000	M
@1138		Person_organization.person_organization_id	(#82000,'CDI-2'),(#83000,'CDI')	S
@1141		Person_organization.organization	#83000	S
@1142		Person_organization.person	#82000	S
@1153		Person_organization to Supplier (identifies)	@1974	M
@389		Design_discipline_product_definition	#17000	M

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Id	V	Application Elements	Value	Req
@392		Design_discipline_product_definition.creation_date	#25000	S
@393		Design_discipline_product_definition.description	#17000,'detailed drawing as planned for STEPconformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18000,'design', #18000,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589	M
@998		Part	#1999	M
@999		Part.part_classification	#9000	S
@1001		Part.part_nomenclature	#1999,'Revolved Solid Object With Internal Spherical Void'	S
@1002		Part.part_number	#1999,'11111'	S
@1003		Part.part_type	#9000	S
@1008		Part to Part_version (has)	@1066	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@1066		Part_version	#10000	M
@1069		Part_version.make_or_buy_code	#10000,BOUGHT	S
@1072		Part_version.release_status	#46000	S
@1073		Part_version.revision_letter	#10000,'A'	S
@1074		Part_version.security_code	#33000	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998	M
@783		Geometric_model_representation (as Advanced_b_rep)	#2290	S
@791		Shape to Geometric_model_representation (is the representation of)	@1589	M
@55		Advanced_b_rep	#2290, <see figure 19>	S
@1589		Shape	#17100	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389	M
@1593		Shape to Geometric_model_representation (represents)	@783	M
@1918		Supplied_part_version	#10000	M
@1974		Supplier	#83000	M
@1975		Supplier.supplier_id	#83000,'CDI'	S
@1977		Supplier to Supplied_part_version (produces)	@1918	M
@1979		Person_organization to Supplier (is identified by)	@1137.5	M

Figure 19 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. This shape contains a spherical

void of radius 0.1 m. The centre of this void is located on the mid-point of a line drawn to join the centers of the two planar circular surfaces in this model. All linear dimensions are in metres.

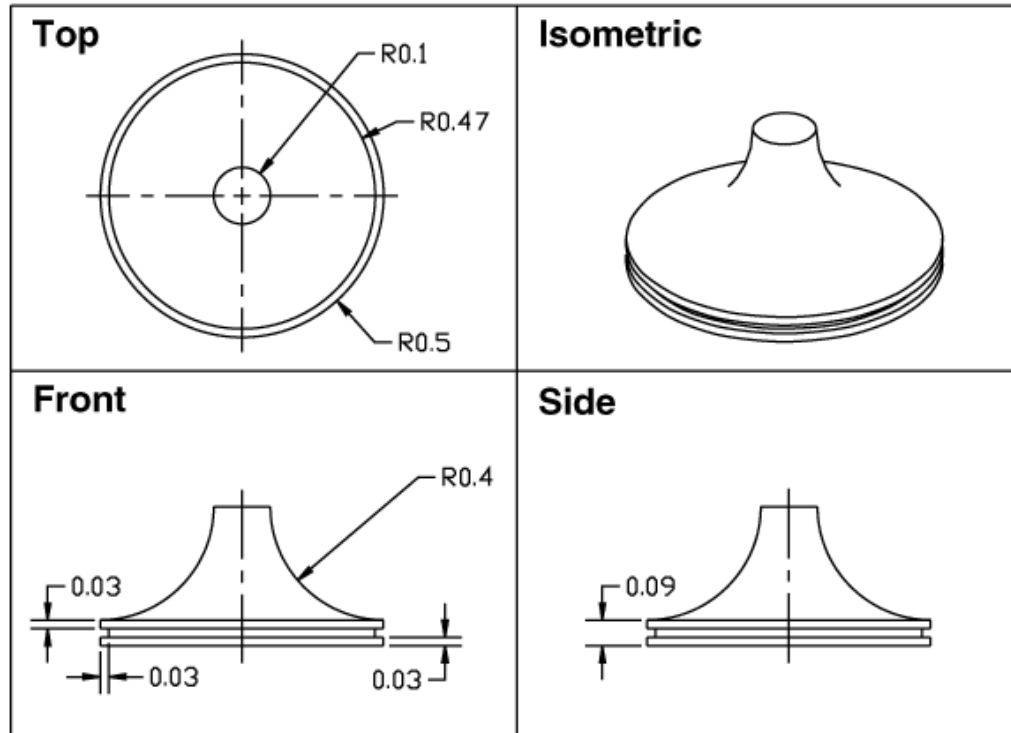


Figure 19 - AB_Revolved_Object_With_Void

Constraints on values:

C1: The values associated with the application object Advanced_B_rep may be modified at the time of development of the executable test case in a way that the geometric shape of the model is preserved. If modified, the specific verdict criteria VC2-3 would have to be modified accordingly.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of the input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 19. and the accompanying description (see ae6).

VC2: This model can be created by revolving a composite curve profile consisting of circular arcs and straight lines 360 degrees about an axis. The Length of this axis is 0.49 m (see ae6).

VC3: This model contains a void. The volume of this model (after subtracting the volume of the void) is 0.4330 cu.m (see ae6)

6.39.2 Postprocessor

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AIM test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 39, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim35, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim166, aim167, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224, aim225, aim226, aim228, aim229, aim230, aim232, aim249, aim250, aim251, aim252, aim253, aim291, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim432, aim433, aim435, aim436, aim437, aim460, aim461, aim494, aim498, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim566, aim567, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim705, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim776, aim825, aim830, aim838, aim878, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 39 above apply.

The following specific verdict criteria apply: VC1 - VC3 (see 6.39.1)

6.40 AB_Gasket_Rod_Assembly 2

Test case summary:

This test case tests the processing of information elements as defined in the UoFs `advanced_boundary_representation`, `authorization`, `part_identification`, and `source_control`, `bill_of_material`. Specifically, the postprocessor input specifications contain instances of **advanced_brep_shape_representation**, the geometric and topological elements used in their construction (CC6), and **next_assembly_usage_occurrence** for representing the assembly (CC1). The assembly represented in this test case carries the same semantics as in the test case `AB_Gasket_Rod_Assembly 1` (see 6.36) but uses repetition to represent multiple occurrences of a component in the assembly.

6.40.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2, and g3.

In the preprocessor input specification table of a test case, the numbers in column 1 (ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2 (V), identify the AE test purposes covered by this test case.

Input specification:

Table 40 - Application elements for AB_Gasket_Rod_Assembly 2

Id	V	Application Elements	Value	Req
@157.1		Approval	#44	M
@158		Approval.date	#48	S
@159		Approval.purpose	#45,'Approved as initial STEP test case part'	S
@160		Approval.status	#46	S
@174		Part_version to Approval (approves)	@1066.1	M
@157.2		Approval	#53	M
@158		Approval.date	#57	S
@159		Approval.purpose	#54,'Approved as unclassified STEP test data'	S
@160		Approval.status	#55	S
@157.3		Approval	#61	M
@158		Approval.date	#65	S
@159		Approval.purpose	#62,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#63	S
@172		Design_discipline_product_definition to Approval (approves)	@389.1	M
@157.4		Approval	#2044	M
@158		Approval.date	#2048	S
@159		Approval.purpose	#2045,'Approved as initial STEP test case part'	S
@160		Approval.status	#2046	S
@174		Part_version to Approval (approves)	@1066.2	M
@157.5		Approval	#2053	M
@158		Approval.date	#2057	S
@159		Approval.purpose	#2054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#2055	S
@157.6		Approval	#2061	M
@158		Approval.date	#2065	S
@159		Approval.purpose	#2062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#2063	S
@172		Design_discipline_product_definition to Approval (approves)	@389.2	M
@157.7		Approval	#3293	M
@158		Approval.date	#3297	S
@159		Approval.purpose	#3294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#3295	S
@157.8		Approval	#4044	M
@158		Approval.date	#4048	S
@159		Approval.purpose	#4045,'Approved as initial STEP test case part'	S
@160		Approval.status	#4046	S

Id	V	Application Elements	Value	Req
@174		Part_version to Approval (approves)	@1066.3	M
@157.9		Approval	#4053	M
@158		Approval.date	#4057	S
@159		Approval.purpose	#4054,'Approved as unclassified STEP test data'	S
@160		Approval.status	#4055	S
@157.10		Approval	#4061	M
@158		Approval.date	#4065	S
@159		Approval.purpose	#4062,'Approved as STEP conformance testing drawing'	S
@160		Approval.status	#4063	S
@173	*	Design_discipline_product_definition to Approval (approves)	@389.3,@389.4,@389.5,@389.6	M
@157.11		Approval	#5293	M
@158		Approval.date	#5297	S
@159		Approval.purpose	#5294,'Approved as unclassified STEP test data'	S
@160		Approval.status	#5295	S
@1137.1		Person_organization	#4	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.1	M
@1137.2		Person_organization	#11	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.1	M
@1137.3		Person_organization	#40	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.4		Person_organization	#19	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.1	M
@1137.5		Person_organization	#80	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1137.6		Person_organization	#2004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.2	M

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Id	V	Application Elements	Value	Req
@1137.7		Person_organization	#2011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.2	M
@1137.8		Person_organization	#2040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.9		Person_organization	#2019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1147		Person_organization to Design_discipline_product_definition (is the creator of)	@389.2	M
@1137.10		Person_organization	#2080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1137.11		Person_organization	#3290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.12		Person_organization	#4004	M
@1138		Person_organization.person_organization_id	(#6,'333-003'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#6	S
@1144		Person_organization to Part (is the owner of)	@998.3	M
@1137.13		Person_organization	#4011	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S
@1150		Person_organization to Part_version (is the creator of)	@1066.3	M
@1137.14		Person_organization	#4040	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@1137.15		Person_organization	#4019	M
@1138		Person_organization.person_organization_id	(#14,'222-002'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#14	S

Id	V	Application Elements	Value	Req
@1148	*	Person_organization to Design_discipline_product_definition (is the creator of)	@389.3,@389.4,@389.5,@389.6	M
@1137.1 5		Person_organization	#4080	M
@1138		Person_organization.person_organization_id	(#82,'CDI-2'),(#83,'CDI')	S
@1141		Person_organization.organization	#83	S
@1142		Person_organization.person	#82	S
@1137.1 7		Person_organization	#5290	M
@1138		Person_organization.person_organization_id	(#42,'555-005'),(#7,'NVI-Michigan')	S
@1141		Person_organization.organization	#7	S
@1142		Person_organization.person	#42	S
@335.1 @336 @337 @338 @339		Component_assembly_position Component_assembly_position.transformation Engineering_next_higher_assembly to Component_assembly_position (has) Geometric_model_representation to Component_assembly_position (is a component in) Geometric_model_representation to Component_assembly_position (is an assembly in)	#1230 (#9211, #9120) @627.2 @783.2 @783.1	M S M M M
@335.2 @336 @337 @338 @339		Component_assembly_position Component_assembly_position.transformation Engineering_next_higher_assembly to Component_assembly_position (has) Geometric_model_representation to Component_assembly_position (is a component in) Geometric_model_representation to Component_assembly_position (is an assembly in)	#1231 (#9241, #9120) @627.2 @783.2 @783.1	M S M M M
@335.3 @336 @337 @338 @339		Component_assembly_position Component_assembly_position.transformation Engineering_next_higher_assembly to Component_assembly_position (has) Geometric_model_representation to Component_assembly_position (is a component in) Geometric_model_representation to Component_assembly_position (is an assembly in)	#1232 (#9271, #9120) @627.2 @783.2 @783.1	M S M M M
@335.4 @336 @337 @338 @339		Component_assembly_position Component_assembly_position.transformation Engineering_next_higher_assembly to Component_assembly_position (has) Geometric_model_representation to Component_assembly_position (is a component in) Geometric_model_representation to Component_assembly_position (is an assembly in)	#1233 (#9301, #9120) @627.2 @783.2 @783.1	M S M M M
@514.1 @515 @522		Engineering_assembly (as Engineering_next_higher_assembly) Engineering_assembly.security_code Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	#3265 #3283 @389.1	M S M

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Id	V	Application Elements	Value	Req
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.2	M
@627.1		Engineering_next_higher_assembly	#3265	M
@630		Engineering_next_higher_assembly.reference_designator	#3265,"	S
@514.2		Engineering_assembly (as Engineering_next_higher_assembly)	#5265	M
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.2	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.3	M
@627.2		Engineering_next_higher_assembly	#5265	M
@630		Engineering_next_higher_assembly.reference_designator	#5265,'designator 5'	S
@514.3		Engineering_assembly (as Engineering_next_higher_assembly)	#5266	M
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.2	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.4	M
@627.3		Engineering_next_higher_assembly	#5266	M
@630		Engineering_next_higher_assembly.reference_designator	#5266,'designator 5'	S
@514.4		Engineering_assembly (as Engineering_next_higher_assembly)	#5267	M
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.2	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.5	M
@627.4		Engineering_next_higher_assembly	#5267	M
@630		Engineering_next_higher_assembly.reference_designator	#5267,'designator 5'	S
@514.5		Engineering_assembly (as Engineering_next_higher_assembly)	#5268	M
@515		Engineering_assembly.security_code	#5283	S
@522		Design_discipline_product_definition to Engineering_assembly(assembly is defined for)	@389.2	M
@523		Design_discipline_product_definition to Engineering_assembly(component is defined by)	@389.6	M
@627.5		Engineering_next_higher_assembly	#5268	M
@630		Engineering_next_higher_assembly.reference_designator	#5268,'designator 5'	S
@389.1		Design_discipline_product_definition	#17	M
@392		Design_discipline_product_definition.creation_date	#25	S
@393		Design_discipline_product_definition.description	#17,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#18,'design', #18,'detailed design')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.3	M
@400	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.1	M

Id	V	Application Elements	Value	Req
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.4	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.1	M
@413	*	Shape to Design_discipline_product_definition (has geometric characteristics defined by)	<not_present>	M
@389.2		Design_discipline_product_definition	#2017	M
@392		Design_discipline_product_definition.creation_date	#2025	S
@393		Design_discipline_product_definition.description	#2017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#2018,'design', #2018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.6	M
@401	*	Design_discipline_product_definition to Engineering_assembly (is the assembly for)	@514.2,@514.3,@514.4,@514.5	M
@403	*	Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.1	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.9	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.2	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.1	M
@389.3		Design_discipline_product_definition	#4017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#4017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.10	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.2	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.15	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.2	M
@389.4		Design_discipline_product_definition	#5017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#5017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.10	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.3	M

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Id	V	Application Elements	Value	Req
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.15	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.3	M
@389.5		Design_discipline_product_definition	#6017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#6017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.10	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.4	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.15	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.4	M
@389.6		Design_discipline_product_definition	#7017	M
@392		Design_discipline_product_definition.creation_date	#4025	S
@393		Design_discipline_product_definition.description	#7017,'detailed drawing as planned for STEP conformance testing'	S
@394		Design_discipline_product_definition.discipline_id	(#4018,'design', #4018,'assembly specification')	S
@398		Design_discipline_product_definition to Approval (is approved by)	@157.10	M
@403		Design_discipline_product_definition to Engineering_assembly (is used as a component in)	@514.5	M
@411		Person_organization to Design_discipline_product_definition (is created by)	@1137.15	M
@412		Part_version to Design_discipline_product_definition (is a definition of)	@1066.3	M
@414		Shape to Design_discipline_product_definition (has geometric characteristics defined by)	@1589.5	M
@998.1		Part	#1	M
@999		Part.part_classification	#9	S
@1001		Part.part_nomenclature	#1,'Gasket Rod Assembly'	S
@1002		Part.part_number	#1,'11111'	S
@1003		Part.part_type	#9	S
@1008		Part to Part_version (has)	@1066.1	M
@1013		Person_organization to Part (is owned by)	@1137.1	M
@998.2		Part	#2001	M
@999		Part.part_classification	#2009	S
@1001		Part.part_nomenclature	#2001,'Flat Ring Gasket with Holes'	S
@1002		Part.part_number	#2001,'21113'	S

Id	V	Application Elements	Value	Req
@1003		Part.part_type	#2009	S
@1008		Part to Part_version (has)	@1066.2	M
@1013		Person_organization to Part (is owned by)	@1137.6	M
@998.3		Part	#4001	M
@999		Part.part_classification	#4009	S
@1001		Part.part_nomenclature	#4001,'Rod with Conical Tip'	S
@1002		Part.part_number	#4001,'41113'	S
@1003		Part.part_type	#4009	S
@1008		Part to Part_version (has)	@1066.3	M
@1013		Person_organization to Part (is owned by)	@1137.12	M
@1066.1		Part_version	#10	M
@1069		Part_version.make_or_buy_code	#10,BOUGHT	S
@1072		Part_version.release_status	#46	S
@1073		Part_version.revision_letter	#10,'A'	S
@1074		Part_version.security_code	#33	S
@1075		Part_version to Approval (is approved by)	@157.1	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.1	M
@1080		Person_organization to Part_version (is created by)	@1137.2	M
@1087		Part to Part_version (shall define a variation of)	@998.1	M
@1066.2		Part_version	#2010	M
@1069		Part_version.make_or_buy_code	#2010,BOUGHT	S
@1072		Part_version.release_status	#2046	S
@1073		Part_version.revision_letter	#2010,'B'	S
@1074		Part_version.security_code	#2033	S
@1075		Part_version to Approval (is approved by)	@157.4	M
@1076		Part_version to Design_discipline_product_definition (is defined by)	@389.2	M
@1080		Person_organization to Part_version (is created by)	@1137.7	M
@1087		Part to Part_version (shall define a variation of)	@998.2	M
@1066.3		Part_version	#4010	M
@1069		Part_version.make_or_buy_code	#4010,BOUGHT	S
@1072		Part_version.release_status	#4046	S
@1073		Part_version.revision_letter	#4010,'B'	S
@1074		Part_version.security_code	#4033	S
@1075		Part_version to Approval (is approved by)	@157.8	M
@1077	*	Part_version to Design_discipline_product_definition (is defined by)	@389.3,@389.4,@389.5,@389.6	M
@1080		Person_organization to Part_version (is created by)	@1137.13	M
@1087		Part to Part_version (shall define a variation of)	@998.3	M
@783.1		Geometric_model_representation (as Advanced_b_rep)	#9370	S
@789		Geometric_model_representation to Component_assembly_position (represents an assembly in)	@335.1,@335.2,@335.3,@335.4	M
@791		Shape to Geometric_model_representation (is the representation of)	@1589.1	M
@55.1		Advanced_b_rep	#9370, <see figure 15>	S

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Id	V	Application Elements	Value	Req
@783.2		Geometric_model_representation (as Advanced_b_rep)	#10370	S
@785		Geometric_model_representation to Component_assembly_position (represents components in)	@335.1	M
@792	*	Shape to Geometric_model_representation (is the representation of)	@1589.2,@1589.3,@1589.4,@1589.5	M
@55.2		Advanced_b_rep	#10370, <see figure 15>	S
@1589.1		Shape	#11000	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.2	M
@1593		Shape to Geometric_model_representation (represents)	@783.1	M
@1589.2		Shape	#11020	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.3	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M
@1589.3		Shape	#11021	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.4	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M
@1589.4		Shape	#11022	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.5	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M
@1589.5		Shape	#11023	S
@1590		Shape to Design_discipline_product_definition (defines geometric characteristics of)	@389.6	M
@1593		Shape to Geometric_model_representation (represents)	@783.2	M

Constraints on values:

See 6.36.1

Verdict criteria:

See 6.36.1

6.40.2 Postprocessor

Test purposes covered:

The following general test purposes are covered: g1, g4, and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of table 40, whose rows are non-blank in column 2 (V), identify the AE test purposes covered in this test case.

The following AIM test purposes are covered: aim33, aim35, aim36, aim37, aim38, aim39, aim40, aim42, aim44, aim45, aim46, aim47, aim48, aim49, aim51, aim52, aim61, aim62, aim64, aim169, aim170, aim172, aim182, aim183, aim185, aim186, aim189, aim204, aim205, aim207, aim214, aim216, aim217, aim224,

aim225, aim226, aim228, aim229, aim230, aim232, aim233, aim249, aim250, aim251, aim253, aim288, aim292, aim294, aim296, aim305, aim306, aim314, aim316, aim318, aim319, aim331, aim332, aim334, aim335, aim344, aim345, aim346, aim365, aim378, aim379, aim381, aim383, aim384, aim401, aim403, aim404, aim406, aim409, aim413, aim418, aim421, aim431, aim432, aim433, aim435, aim437, aim445, aim446, aim447, aim460, aim461, aim499, aim500, aim501, aim522, aim523, aim525, aim527, aim529, aim530, aim532, aim535, aim536, aim537, aim565, aim570, aim578, aim579, aim587, aim589, aim590, aim594, aim595, aim600, aim601, aim603, aim704, aim705, aim706, aim719, aim720, aim729, aim747, aim759, aim766, aim767, aim768, aim772, aim825, aim830, aim838, aim879

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2 (V) of table 40 above apply.

The following specific verdict criteria apply: VC1 - VC10 (see 6.40.1)

Annex A
(normative)

Conformance classes

Table A.1 lists the associativity between each test case in this document and the conformance classes of ISO 10303-203. A test campaign for a particular conformance class must contain its associated test cases.

Table A.1 Conformance classes and associated Test cases

Test Case	Conformance Class					
	1	2	3	4	5	6
6.1 CM_MinCM 1	x	x	x	x	x	x
6.2 CM_MinCM 2	x	x	x	x	x	x
6.3 CM_Part_Id 1	x	x	x	x	x	x
6.4 CM_Part_Id 2	x	x	x	x	x	x
6.5 CM_Part_Id 4	x	x	x	x	x	x
6.6 CM_Design_Activity_Control 1	x	x	x	x	x	x
6.7 CM_Design_Activity_Control 2	x	x	x	x	x	x
6.8 CM_Design_Info 1	x	x	x	x	x	x
6.9 CM_Design_Info 2	x	x	x	x	x	x
6.10 CM_End_Id 1	x	x	x	x	x	x
6.11 CM_Bill_Of_Material 1	x	x	x	x	x	x
6.12 CM_Bill_Of_Material 2	x	x	x	x	x	x
6.13 CM_Bill_Of_Material 3	x	x	x	x	x	x
6.14 CM_Bill_Of_Material 4	x	x	x	x	x	x
6.15 CM_Bill_Of_Material 5	x	x	x	x	x	x
6.16 CM_Bill_Of_Material 6	x	x	x	x	x	x
6.17 CM_Bill_Of_Material 7	x	x	x	x	x	x
6.18 CM_Effectivity 1	x	x	x	x	x	x
6.19 CM_Effectivity 2	x	x	x	x	x	x
6.20 CM_Effectivity 3	x	x	x	x	x	x

Test Case	Conformance Class					
6.21 NT_Star 1		x				
6.22 NT_Yoyo1		x				
6.23 NT_Cone 1		x				
6.24 NT_Cube		x				
6.25 NT_Cube 2		x				
6.26 WT_Cube 3			x			
6.27 WT_Wedge 1			x			
6.28 MS_Widget 1				x		
6.29 FB_Hex_Prism 1					x	
6.30 FB_Hex_Prism 2					x	
6.31 AB_Gasket 1						x
6.32 AB_Gasket 2						x
6.33 AB_Gasket 3						x
6.34 AB_Rod_Aspect 1						x
6.35 AB_Gasket_Rod_Assembly 1						x
6.36 AB_Weight 1						x
6.37 AB_Revolved_Object 1						x
6.38 AB_Swept_Object						x
6.39 AB_Revolved_Object_With_Void						x
6.40 AB_Gasket_Rod_Assembly 2						x

Annex B
(normative)

Information object registration

To provide for unambiguous identification of an information object in an open system, the object identifier { iso standard 10303 part(303) version(1) } is assigned to this part of ISO 10303. The meaning of this value is defined in ISO/IEC 8824-1, and is described in ISO 10303-1.

Annex C (normative)

Postprocessor input specification file names

The postprocessor input specifications for each test case is supplied electronically on magnetic media (floppy diskette). Table C.1 lists the file names of the postprocessor input specification that is associated with the postprocessor subclause(s) of a test case.

Table C.1 Postprocessor input specification file names

Subclause	Test case	File name
6.1.2	CM_MinCM 1	cm20-2.p21
6.1.3	CM_MinCM 1	cm20-3.p21
6.2.2	CM_MinCM 2	cm22-2.p21
6.3.2	CM_Part_Id 1	cm1-2.p21
6.4.2	CM_Part_Id 2	cm2-2.p21
6.5.2	CM_Part_Id 4	cm4-2.p21
6.6.2	CM_Design_Activity_Control 1	cm5-2.p21
6.7.2	CM_Design_Activity_Control 2	cm6-2.p21
6.8.2	CM_Design_Info 1	cm7-2.p21
6.8.3	CM_Design_Info 1	cm7-3.p21
6.9.2	CM_Design_Info 2	cm8-2.p21
6.9.3	CM_Design_Info 2	cm8-3.p21
6.9.4	CM_Design_Info 2	cm8-4.p21
6.9.5	CM_Design_Info 2	cm8-5.p1
6.10.2	CM_End_Id 1	cm9-2.p21
6.10.3	CM_End_Id 1	cm9-3.p21
6.11.2	CM_Bill_Of_Material 1	cm10-2.p21
6.11.3	CM_Bill_Of_Material 1	cm10-3.p21
6.11.4	CM_Bill_Of_Material 1	cm10-4.p21
6.11.5	CM_Bill_Of_Material 1	cm10-5.p21

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Subclause	Test case	File name
6.12.2	CM_Bill_Of_Material 2	cm11-2.p21
6.12.3	CM_Bill_Of_Material 2	cm11-3.p21
6.12.4	CM_Bill_Of_Material 2	cm11-4.p21
6.13.2	CM_Bill_Of_Material 3	cm12-2.p21
6.13.3	CM_Bill_Of_Material 3	cm12-3.p21
6.14.2	CM_Bill_Of_Material 4	cm13-2.p21
6.15.2	CM_Bill_Of_Material 5	cm14-2.p21
6.16.2	CM_Bill_Of_Material 6	cm15-2.p21
6.17.2	CM_Bill_Of_Material 7	cm16-2.p21
6.18.2	CM_Effectivity 1	cm17-2.p21
6.19.2	CM_Effectivity 2	cm18-2.p21
6.20.2	CM_Effectivity 3	cm19-2.p21
6.21.2	NT_Star 1	nt1-2.p21
6.21.3	NT_Star 1	nt1-3.p2
6.21.4	NT_Star 1	nt1-4.p21
6.22.2	NT_Yoyo1	nt2-2.p21
6.23.2	NT_Cone 1	nt3-2.p21
6.24.2	NT_Cube	nt4-2.p21
6.25.2	NT_Cube 2	nt-2i.p21
6.26.2	WT_Cube 3	wt1-2.p21
6.27.2	WT_Wedge 1	wt2-2.p21
6.28.2	MS_Widget 1	ms1-2.p21
6.29.2	FB_Hex_Prism 1	fb1-2.p21
6.30.2	FB_Hex_Prism 2	fb2-2.p21
6.31.2	AB_Gasket 1	ab1-2.p21
6.31.3	AB_Gasket 1	ab1-3.p21
6.31.4	AB_Gasket 1	ab1-4.p21
6.32.2	AB_Gasket 2	ab2-2.p21

Subclause	Test case	File name
6.33.2	AB_Gasket 3	ab3-2.p21
6.34.2	AB_Rod_Aspect 1	ab4-2.p21
6.35.2	AB_Gasket_Rod_Assembly 1	ab5-2.p21
6.35.3	AB_Gasket_Rod_Assembly 1	ab5-3.p21
6.36.2	AB_Weight 1	ab6-2.p21
6.37.2	AB_Revolved_Object 1	ab8-2.p21
6.38.2	AB_Swept_Object	ab9-2.p21
6.39.2	AB_Revolved_Object_With_Void	ab10-2.p21
6.40.2	AB_Gasket_Rod_Assembly 2	ab11-2.p21

Annex D
(informative)

Excluded test purposes

D.1 Subtype Mandatory Requirement

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-203 are excluded from being verdicted in any test since ISO 10303-203 places local constraints on these entities which allow them to be instantiated only as their subtypes.

Action

Effectivity

Product_Context

Product_Definition_Usage

Product_Definition_Formation

Product_Definition_Effectivity

Representation

Representation with items of one element

Representation with items of many elements

Representation_Context

D.2 Abstract Supertypes

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-203 are excluded from being verdicted in any test since these entities will only be instantiated as their subtypes.

Bounded_Curve

Bounded_Surface

B_Spline_Curve

B_Spline_Curve with control_points_list of many elements

B_Spline_Curve with curve_form = elliptic_arc

B_Spline_Curve with curve_form = polyline_form

B_Spline_Curve with curve_form = parabolic_arc

B_Spline_Curve with curve_form = circular_arc

B_Spline_Curve with curve_form = unspecified

B_Spline_Curve with curve_form = hyperbolic_arc

B_Spline_Curve with closed_curve = TRUE

B_Spline_Curve with closed_curve = FALSE
 B_Spline_Curve with closed_curve = UNKNOWN
 B_Spline_Curve with self_intersect = TRUE
 B_Spline_Curve with self_intersect = FALSE
 B_Spline_Curve with self_intersect = UNKNOWN

B_Spline_Surface
 B_Spline_Surface with control_points_list of many elements
 B_Spline_Surface with surface_form = surf_of_linear_extrusion
 B_Spline_Surface with surface_form = plane_surf
 B_Spline_Surface with surface_form = generalised_cone
 B_Spline_Surface with surface_form = toroidal_surf
 B_Spline_Surface with surface_form = conical_surf
 B_Spline_Surface with surface_form = spherical_surf
 B_Spline_Surface with surface_form = unspecified
 B_Spline_Surface with surface_form = ruled_surf
 B_Spline_Surface with surface_form = surf_of_revolution
 B_Spline_Surface with surface_form = cylindrical_surf
 B_Spline_Surface with surface_form = quadric_surf
 B_Spline_Surface with u_closed = TRUE
 B_Spline_Surface with u_closed = FALSE
 B_Spline_Surface with u_closed = UNKNOWN
 B_Spline_Surface with v_closed = TRUE
 B_Spline_Surface with v_closed = FALSE
 B_Spline_Surface with v_closed = UNKNOWN
 B_Spline_Surface with self_intersect = TRUE
 B_Spline_Surface with self_intersect = FALSE
 B_Spline_Surface with self_intersect = UNKNOWN

Cartesian_Transformation_Operator
 Cartesian_Transformation_Operator with axis1
 Cartesian_Transformation_Operator with axis1 not present
 Cartesian_Transformation_Operator with axis2
 Cartesian_Transformation_Operator with axis2 not present
 Cartesian_Transformation_Operator with scale
 Cartesian_Transformation_Operator with scale not present

Conic with position as Axis2_Placement_3d
 Conic
 Conic with position as Axis2_Placement_2d

Curve

Elementary_Surface

Edge

Face

Face with bounds of one element

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Face with bounds of many elements

Geometric_Representation_Item

Loop

Oriented_Path

Oriented_Path with edge_list of one element

Oriented_Path with edge_list of many elements

Oriented_Path with orientation = TRUE

Oriented_Path with orientation = FALSE

Path

Path with edge_list of one element

Path with edge_list of many elements

Placement

Point

Representation_Item

Solid_Model

Surface

Topological_Representation_Item

D.3 Context

The following test purposes derived from the AIM EXPRESS are excluded from being verdicted in any abstract test since ISO 10303-203 deals with 3D design of mechanical parts and assemblies and these entities are only meaningful in 2D design.

Axis1_Placement

Axis1_Placement with axis

Axis1_Placement with axis not present

Axis2_Placement_2d

Axis2_Placement_2d

Axis2_Placement_2d with ref_direction

Axis2_Placement_2d with ref_direction not present

Cartesian_Transformation_Operator_2d

Cartesian_Transformation_Operator_2d

Cartesian_Transformation_Operator_2d with axis1

Cartesian_Transformation_Operator_2d with axis1 not present

Cartesian_Transformation_Operator_2d with axis2

Cartesian_Transformation_Operator_2d with axis2 not present
 Cartesian_Transformation_Operator_2d with scale
 Cartesian_Transformation_Operator_2d with scale not present

Circle
 Circle with position as Axis2_Placement_2d

Ellipse with position as Axis2_Placement_2d

Hyperbola with position as Axis2_Placement_2d

Offset_Curve_2d
 Offset_Curve_2d with self_intersect = TRUE
 Offset_Curve_2d with self_intersect = FALSE
 Offset_Curve_2d with self_intersect = UNKNOWN

Parabola with position as Axis2_Placement_2d

D.4 Values restricted by local rules

The following test purposes derived from the AIM EXPRESS are excluded from being verdicted in any abstract test since ISO 10303-203 has local rules which restrict the values of the referenced attributes.

Area_Measure_With_Unit with value_component as Context_Dependent_Measure
 Area_Measure_With_Unit with value_component as Count_Measure
 Area_Measure_With_Unit with value_component as Descriptive_Measure
 Area_Measure_With_Unit with value_component as Length_Measure
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Annex E
(informative)

Bibliography

The following references are either informative or placed in this annex because they have not yet advanced in the ISO standardization process to be referenced normatively, or are presently in the process of being published by ISO.

1. ISO/TR 10303-TR12 *Industrial automation systems and integration — Description methods: The EXPRESS-I language reference manual.*
2. ISO 10303-33 *Industrial automation systems and integration — Product data representation and exchange — Part 33: Conformance testing methodology and framework: Abstract test suites.*
3. ISO 10303-34 *Industrial automation systems and integration — Product data representation and exchange — Part 34: Conformance testing methodology and framework: Abstract test methods.*

Annex F (informative)

SEDS

A number of pending STEP Enhancement and Discrepancy System (SEDS) reports have been submitted against ISO 10303-203. One of these, SEDS 70 points out problems with the cardinalities of the relationships between certain application objects in the application assertions specified in clause 4 of ISO 10303-203. The test cases in 6.11 and 6.12 are affected by these problems. SEDS 70 is reproduced below for the reader's ready reference.

Section 1. GENERAL INFORMATION (completed by SEDS Coordinator):

SEDS Report Issue Number: 70
 Date Submitted: 1/19/96
 Status and date: open
 SEDS Team Leader:
 SEDS Team Members: jk@iti.org

Section 2. ENHANCEMENT AND DISCREPANCY INFORMATION (completed by author of SEDS Report):

Author: James Kindrick
 Submitted by: US
 Part/Clause Affected by the Issue: 203; Clause 4.3
 Other Parts Affected by the Issue:
 Problem Description: The definition of application assertions in Clause 4.3 specifies the cardinality of the relationships among application objects defined in Clause 4.2.

The documentation of several assertions in AP203 omits the case of zero cardinality. This implies that the relationship described by the assertion must exist in all valid model instances.

It appears that this implication is invalid in many cases. I believe that the documentation of these assertions should allow for the case of zero cardinality to accurately reflect the information requirements.

For example, consider assertion 4.3.21 Planned_effectivity to Approval. It states :

"Each Planned_effectivity is approved by exactly one Approval". "Each Approval approves one or many Planned_effectivity objects".

This implies that every valid instance of Approval must approve at least one Planned_effectivity. This cannot be the intent - an Approval may approve a Design_discipline_product_definition, for example, and not a Planned_effectivity. In fact, there may be no

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instance of Planned_effectivity to approve, yet many Approvals are certainly required elsewhere.

Likewise, assertion 4.3.29 Shape_aspect to Geometric_model_representation states the following :

"Each Shape_aspect is represented by one or many Geometric_model_representations.
Each Geometric_model_representation represents exactly one Shape_aspect".

This implies that all valid instances of Geometric_model_representation must represent a Shape_aspect. It does not allow a Geometric_model_representation to represent a Shape - which I believe is certainly intended to be allowed. Geometric_model_representation is defined (4.2.15) as "the definition of the shape or a portion of the shape of a part". Indeed, in the general case a Geometric_model_representation is the definition of a Shape (4.2.29). It is additional capability to be the definition of a portion of the shape, i.e. a Shape_aspect (4.2.30).

The following list of application assertions all appear to omit the case of zero cardinality when it should not be omitted. They each result in the listed implication :

4.3.14 Part_version to Approval

"Part_version is approved by exactly one Approval. Each Approval approves one or many Part_version objects".

-> implication : every approval must approve a part_version

4.3.16 Part_version to Supplied_part_version

"Part_version is identified as one or many Supplied_part_version objects. Each Supplied_part_version corresponds to exactly one Part_version".

-> implication : every part_version must be identified as supplied_part_version

4.3.21 Planned_effectivity to Approval

"Each Planned_effectivity is approved by exactly one Approval. Each Approval approves one or many Planned_effectivity objects".

-> implication : every approval must approve a planned_effectivity

4.3.22 Product_configuration to Approval

"Each Product_configuration is approved by exactly one Approval. Each Approval approves one or many Product_configuration objects".

-> implication : every approval must approve a product_configuration

4.3.29 Shape_aspect to Geometric_model_representation

"Each Shape_aspect is represented by one or many Geometric_model_representation objects. Geometric_model_representation represents exactly one Shape_aspect".

-> implication : every geometric_model_representation represents a shape_aspect

4.3.34 Work_order to Approval

"Each Work_order is approved by exactly one Approval. Each Approval approves one or many Work_order objects".

-> implication : every approval must approve a work_order

4.3.37 Work_request to Approval

"Each Work_request is approved by exactly one Approval. Each Approval approves one or many Work_request objects".

-> implication : every approval must approve a work_request

Conditions Under Which the Issue Was Discovered: Development of ATS preprocessor test data for ATS303

Proposed Solution (Optional): 4.3.14 Part_version to Approval

"Part_version is approved by exactly one Approval. Each Approval approves zero, one, or many Part_version objects".

4.3.16 Part_version to Supplied_part_version

"Part_version is identified as zero, one, or many Supplied_part_version objects. Each Supplied_part_version corresponds to exactly one Part_version".

4.3.21 Planned_effectivity to Approval

"Each Planned_effectivity is approved by exactly one Approval. Each Approval approves zero, one, or many Planned_effectivity objects".

4.3.22 Product_configuration to Approval

"Each Product_configuration is approved by exactly one Approval. Each Approval approves zero, one, or many Product_configuration objects".

4.3.29 Shape_aspect to Geometric_model_representation

"Each Shape_aspect is represented by one or many Geometric_model_representation objects. Geometric_model_representation represents zero or one Shape_aspect".

4.3.34 Work_order to Approval

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"Each Work_order is approved by exactly one Approval. Each Approval approves zero, one, or many Work_order objects".

4.3.37 Work_request to Approval

"Each Work_request is approved by exactly one Approval. Each Approval approves zero, one, or many Work_request objects".

Additional Notes:

Section 3. RESPONSE INFORMATION (completed by SEDS Team Leader):

Accepted/Rejected (date):

If Accepted, Resolution:

If Rejected, Reason:

Solution:

Comments:

Section 4. FOLLOW-UP INFORMATION (completed by SEDS Coordinator):

Magnitude of Change:

No Further Action Required:

Action Required by SEDS Coordinator:

Action Required by WG Conveners:

Action Required by P-members:

Action Required by Editing Committee:

Action Required by TC184/SC4:

Result of Required Action:

Section 5. FILING INFORMATION (for use by the national body of the source of the SEDS Report):

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