

Global Filing Manual

Version: 2010-10-12

Abstract

The rules in this document aim to facilitate the analysis and comparison of XBRL financial reporting data by computer applications and human readers. The following set of rules provides guidance on the preparation, filing, and validation of filings in eXtensible Business Reporting Language (XBRL) format.

Status

Circulation of this document is open to the public.

Table of Contents

Abstract	1
Status	1
Table of Contents	2
Copyright, Use and Disclaimer	3
Objective.....	4
Scope	4
Target Audience.....	4
Relationship to Other Work	4
Tailoring this Document	4
Levels of tagging	5
Terminology.....	6
Rules	8
Overview of the GFM Rules.....	56

Copyright, Use and Disclaimer

The authors and the publishers of *The Global Filing Manual* (GFM) wish to waive their copyright of the GFM within the Territories in which it is to be published to provide guidance on the preparation, filing and validation of filings in XBRL. However, the waiver of this copyright does not give anyone permission to significantly change the document beyond the author's intention or beyond the document's purpose and effect. Nor does the copyright waiver give anyone permission to assert their copyright over the document or use it for their commercial or personal gain in any way whatsoever. The authors and the publishers do not accept responsibility for loss caused to any person who acts or refrains from acting in reliance on the material in this publication, whether such loss is caused by negligence or otherwise.

Objective

The following set of rules provides guidance on the preparation, filing, and validation of filings in eXtensible Business Reporting Language (XBRL) format. The rules in this document aim to facilitate the analysis and comparison of XBRL financial reporting data by computer applications and human readers. The fundamental use case that guides the rules is the publication, by a single organisation, of its financial statements, and the consumption of those financial statements by many, initially unknown, users and software applications.

Scope

The rules in this document have been created for financial reporting; some of the rules may be inappropriate or inapplicable for other types of business reporting.

In this document, “financial reporting” encompasses authoritative financial reporting standards and generally accepted accounting principles/practices (or GAAP), regulatory reports whose subject matter is primarily financial position and performance and related explanatory disclosures, and data sets used in the collection of financial statistics; it excludes transaction- or journal-level reporting, primarily narrative reports (for example, internal controls assessments) and non-financial quantitative reports (for example, air pollution measurements).

Target Audience

This document is intended for a technical audience and assumes that the reader has a working knowledge of the XBRL 2.1 and the XBRL Dimensions 1.0 Specifications, is familiar with major taxonomies, and has a basic understanding of XML, Namespaces, and XML Schema. To readers with XML knowledge, many of the guidelines in this document will be familiar however, other rules originate from features that are XBRL-specific and therefore the reasoning behind these rules may be less obvious. Where appropriate, the rules are accompanied by a brief rationale explanation.

Relationship to Other Work

The guidelines in this document pertain to XBRL filings. Parts of this document reiterate for expository clarity certain syntactic and semantic restrictions imposed by XBRL, but this document does not modify XBRL. In the event of any conflicts between this document and XBRL, XBRL prevails. This document does place additional restrictions beyond those prescribed by XBRL.

This document is based on the rules established in the EDGAR Filer Manual (EFM) from the US SEC, the EDINET Corporate Extension Taxonomy Creation Guidelines from the Japan FSA, the IFRS Taxonomy Guide from the IFRS Foundation as well as Financial Reporting Instance Standards (FRIS) from XBRL International. Although corresponding rules were clearly marked in this manual it should not be assumed that the rules are equivalent.

Tailoring this Document

This document is based on the assumption that filers in the disclosure system will provide their filings extending the standard taxonomies recognised in the system. This document makes an assumption that in the majority of cases the standard taxonomy linkbases will not be reused and that filers will create their own linkbases to reflect their own relationships between elements. In some disclosure systems however (for example EDINET in Japan) filers may be required to extend existing standard taxonomy linkbases instead of creating their own. The IFRS and US GAAP taxonomies require uniqueness on the standard label level while the EDINET taxonomy allows for uniqueness on the verbose label level. In such scenarios this document should be tailored for the approach needed.

This document must be also tailored for each specific disclosure system. For example the rule 1.1.1 must be further specified to ensure uniqueness of the submitted files. Furthermore, rules concerning the entity identifier and entity scheme, as well as choice between segment or scenario containers, should also be tailored. A summary table is provided at the end of this document which provides information about which rules should be tailored by individual regulators.

Levels of tagging

This document does not prescribe levels of tagging for financial information. Levels of tagging are usually prescribed by regulators in respect of their reporting requirements and the financial information they wish to receive and distribute, the level of XBRL knowledge within their regulated market and other criteria. This document provides four levels of tagging, which follows the example used by one regulator for whom a large number of filings are available. Regulators following the GFM may want to use these levels of tagging as a benchmark for their specific requirements. Accordingly, rules related to levels of tagging (i.e. 2.2.7, 2.2.10, 2.2.11, 2.2.12, 2.2.26, 2.27, 2.2.29) should be appropriately tailored.

Level 1 tagging	Level of detail of tagging of financial statements requiring each complete note to financial statements to be tagged as a single block of text.
Level 2 tagging	Level of detail of tagging of financial statements requiring each significant accounting policy within the significant accounting policies note tagged as a single block of text.
Level 3 tagging	Level of detail of tagging of financial statements requiring each table within each note to financial statements tagged as a separate block of text.
Level 4 tagging	Level of detail of tagging of financial statements requiring within each note to the financial statements, each amount (i.e., monetary value, percentage, and number) separately tagged.

Organisation of this Document

This main part of this document (Rules) covers rules applicable to GFM filing. It begins with a consideration of syntax-related rules (section 1) followed by semantic-related rules (section 2), and then discusses each filing component in detail: instance, schema linkbases. The final section (section 3) covers DEI-related rules.

Terminology

Terminology used in XBRL frequently overlaps with terminology from other fields. In addition to the terms defined in the below table, this document follows terminology used in the XBRL 2.1 and XBRL Dimensions 1.0 Specifications.

Term	Definition
Authority	Any person or organization that has the legally delegated or invested authority, capacity, or power to provide a filing. Filer must own or control the authority name; for example, "example.com" could only be used by Example Inc. itself.
Axis element	xsd:element in the substitutionGroup of dimensionItem; relates to the ability to express multidimensional information; for example, profit from sales could be presented by products, regions, segments, etc; to express such relations XBRL International developed the Dimension 1.0 Specification, which enriches the general XBRL Specification with rules and procedures on how to construct dimensional taxonomies and instance documents.
Default language	Language set as a default in a given disclosure system.
Disclosure system	System in which XBRL filings are filed, received, analysed and redistributed.
Filer	A person or entity on whose behalf a filing is made.
Filer extension	Set of files extending a standard taxonomy (or more standard taxonomies) prepared by the filer.
Filing	A filing is the fundamental unit of information that is transmitted to disclosure system for receipt, validation, and acceptance. It is the conveyance of an XBRL document or series of XBRL filing documents.
Filing document	A document originating with a filer can only be sent as part of a filing. A document is a discrete unit of text. A document is an XBRL file. One or more documents comprise a filing.
Financial statements	A complete set of financial statements comprises: (a) a statement of financial position as at the end of the period; (b) a statement of comprehensive income for the period; (c) a statement of changes in equity for the period; (d) a statement of cash flows for the period; (e) notes, comprising a summary of significant accounting policies and other explanatory information; and (f) a statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.
Line item	Item representing a line in financial statements.
Notes to financial statements	Comprising a summary of significant accounting policies and other explanatory information to the financial statements.
Primary financial statements	Comprise financial statements without notes to financial statements.
Publisher of the schema	Organisation responsible for publishing a given schema.
Relevant regulations	Set of regulations (accounting or financial reporting standards and other regulations) relevant in the context of filing in a given disclosure system.

Term	Definition
Required context	A context having xbrli:startDate equal to 00:00:00 on the first day of the reporting period and xbrli:endDate equal to 24:00:00 on its last day. For example, this rule applies to a filing representing quarterly financial statements for the last calendar quarter of 2009, with xbrli:startDate equal to '2009-10-01' and xbrli:endDate equal to '2009-12-31'. Many filings require a second Required Context. Required contexts are distinguished by having no xbrli:segment or xbrli:scenario elements.
Standard taxonomy	A taxonomy recognised to use as a base for filings in a given disclosure system.
Table element	xsd:element in the substitutionGroup of hypercubeItem which represents a set of dimensions; relates to the ability to express multidimensional information; for example, profit from sales could be presented by products, regions, segments, etc; to express such relations XBRL International developed the Dimension 1.0 Specification, which enriches the general XBRL Specification with rules and procedures on how to construct dimensional taxonomies and instance documents.
Tag	A tag is an XBRL identifier that labels specific information in a disclosure system. It must have place an angle bracket on either side of a term to designate it as a "begin" tag. An "end" tag also has angle brackets but is distinguished by use of the "/" (virgule/slash) immediately following the opening angle bracket (</).
User	Users of financial statements include present and potential investors, employees, lenders, suppliers and other trade creditors, customers, government and their agencies and the public.

Rules

1. Syntax

This section details rules of syntax that apply to a Global Filing Manual filing.

1.1. Filing Syntax

This section details rules of syntax that apply to a Global Filing Manual filing and all of its documents.

1.1.1. XBRL document names must be unique in the disclosure system

For example the US SEC specialises this rule into: "XBRL document names must match {base}-{date}[_{suffix}]{extension}." The {base} should begin with the filer's ticker symbol or other mnemonic abbreviation. The {date} must denote the ending date of the period. The {base} should be the same as that used for the instance in the same filing. The {date} should be the same as that of the instance, even if the content of the schema is identical to some other schema, as for example if the same schema had been used in a previous quarterly filing. The {base} and {date} should be the same as that used for the instance in the same filing.

The Japan FSA specialises this rule into: "jpfr-[asr|ssr|q[1-4]r]-{EDINET code}-{Document period end date}-{number of filing}-{filing date}").

Corresponding rules:

EFM 6.3.3

EDINET Corporate Extension Taxonomy Creation Guidelines 5-1-2

1.1.2. The ampersand character must begin a valid XML predefined entity or numeric character reference.

XML with invalid predefined entity or numeric character references are treated as if an invalid character had appeared. For example, && is invalid XML.

Corresponding rules:

EFM 6.3.5

1.1.3. The URI content of the xlink:href attribute, the xsi:schemaLocation attribute and the schemaLocation attribute must be relative and contain no forward slashes, or a recognized external location of a standard taxonomy schema file, or a "#" followed by a shorthand xpointer.

The xlink:href attribute must appear on the link:loc element; the schemaLocation attribute must appear on the xsd:import element, and the xsi:schemaLocation attribute must appear on the link:linkbase element and may appear on the xbrli:xbrl element. Valid entries for the xlink:href attribute, the xsi:schemaLocation attribute and the schemaLocation attribute are document locations. If they are relative URIs, they are subject to naming conventions specified in the disclosure system. Therefore, all files included in the filing will be at the same level of folder hierarchy. By restricting the content of these attributes, all documents in the DTS of an instance will be either a standard taxonomy or present in the filing.

Examples:

- xlink:href="abccorp-20100123.xsd"
- <xsd:import schemaLocation="http://xbrl.org/2006/xbrldi-2006.xsd" namespace=.../>

Counterexamples:

- xlink:href="http://www.example.com/2007/example.xsd"

- xlink:href="#element(1/4)" (Comment: this is a scheme-based xpointer, not shorthand)
-

The XHTML namespace is intentionally omitted, since an XHTML declaration could not be a valid target for any XBRL element's xlink:href or schemaLocation attribute, and its presence in the xsi:schemaLocation attribute would not impact XBRL validation. There are dozens of other standard taxonomy files to be used as templates to copy from during the preparation process, but their inclusion in a filing tends to load unused linkbases and therefore introduces unwarranted complications such as unused extended links and a need for many prohibiting arcs. Reducing the amount of content in the DTS of the instance to its essentials frees users to more easily link the submitted documents to the linkbases of their particular interest for analysis.

Corresponding rules:

EFM 6.3.6

1.1.4. XBRL document names are case sensitive.

XBRL validation requires instances, linkbases and schemas to refer to one another using URIs, which are case sensitive.

Corresponding rules:

EFM 6.3.7

EDINET Specification Guideline for Filing P.51 (Chapter7-1)

1.1.5. Filers must use one of the taxonomies as specified in the disclosure system as their standard taxonomy.

A listing of all taxonomy files recognised in the disclosure system should be provided on a web location.

Corresponding rules:

EFM 6.3.9

EDINET Guideline for Extension Taxonomy P.8 (Chapter 2-1), P.27 (Chapter 4-2)

1.1.6. A filing must contain at least one filer extension schema.

A company extension taxonomy might be as simple as single schema that defines the namespace to be used by the company, and contains xsd:import elements for the relevant base taxonomy schemas. In most cases, though, the company extension taxonomy will consist of a schema and several linkbases.

Corresponding rules:

EFM 6.3.10

EDINET Guideline for Extension Taxonomy P.8 (Chapter 2-1), P.27 (Chapter 4-2)

1.1.7. Attribute xml:base must not appear in any filing document.

XML processors interpret this attribute differently, so it must not be used.

Corresponding rules:

EFM 6.3.11

1.1.8. Encoding of all XBRL documents must be "UTF-8".

Corresponding rules:

EDINET Report Instance Creation Guidelines 3-2

1.2. Syntax of Instances

This section defines rules governing syntax restrictions on instances. A valid Global Filing Manual instance is a valid XBRL 2.1 instance, but not all valid XBRL 2.1 instances are valid Global Filing Manual instances. Restrictions on the xlink:href, xsi:schemaLocation and schemaLocation attributes ensure that the DTS of an instance will contain only documents in the same filing or in a standard taxonomy.

1.2.1. The scheme attribute of the xbrli:identifier element must follow the pattern recognised in the disclosure system.

For example the US SEC specialises this rule into: "The scheme attribute of the xbrli:identifier element must be http://www.sec.gov/CIK."

Corresponding rules:

EFM 6.5.1

EDINET Report Instance Creation Guidelines 6-3

1.2.2. An xbrli:identifier element must have a number or identifier recognised in the disclosure system as its content.

For example the US SEC specialises this rule into: "An xbrli:identifier element must have the CIK of the Filer as its content."

Corresponding rules:

EFM 6.5.2

EDINET Report Instance Creation Guidelines 6-3

1.2.3. All xbrli:identifier elements in an instance must have identical content.

Corresponding rules:

EFM 6.5.3

EDINET Guideline for Instance Creation P.19 (Chapter6-3)

1.2.4. One of xbrli:scenario or xbrli:segment element must not appear in any xbrli:context.

As both elements are treated as mutually exclusive use of both of them is prohibited.

Corresponding rules:

EFM 6.5.4

EDINET Guideline for Instance Creation P.21(Chapter6-5)

1.2.5. If an xbrli:segment or xbrli:scenario element appears in a context, then its children must be one or more xbrldi:explicitMember elements.

The xbrldi:typedMember element cannot appear in an instance, nor can the xbrli:segment or xbrli:scenario element be used for anything other than for explicit members.

Corresponding rules:

EFM 6.5.5

1.2.6. The content of xbrldi:explicitMember and xbrldi:measure is a QName.

QNames with the same local-name may be S-Equal even with different namespace prefixes, if those namespace prefixes both bind to the same namespace. This has been a point of ambiguity in other XBRL applications. The content of these elements is not a string, it is a QName.

Corresponding rules:

EFM 6.5.6

1.2.7. An instance must not contain duplicate xbrli:context elements.

An instance must not contain equivalent xbrli:context elements. xbrli:segment or xbrli:scenario elements are tested for equality of their children without regard to order. Contexts are defined to be equivalent if they have S-equal identifiers, equal dateUnion values for startDate, endDate and instant (respectively), and segment or scenario element children with equal QNames for each explicit dimension (either segment or scenario element is disallowed by another rule).

The id attribute of an xbrli:context element can be any xsd:NCName, but users will find it helpful when it is a mnemonic string that contains the xbrli:period (or fiscal period), and the local part of the QName contents of the dimension attribute and xbrldi:explicitMember. There is usually no need to repeat the filer name in the id attribute. There is no limit on the length of the id attribute.

The table shows examples of this usage.

Period	xbrli:context id attribute
12 months of fiscal 2007	FY07d
End of fiscal 2007	FY07e
Start of fiscal 2007	FY06e
3 months of the 2nd Quarter of fiscal 2007	FY07Q2d
End of the 2nd Quarter of fiscal 2007	FY07Q2e
9 months year to date in fiscal 2007	FY07M9d
Fiscal 2006 previously reported amounts	FY06d_ScenarioAxis_PreviouslyReportedMember

Corresponding rules:

EFM 6.5.7

EDINET Guideline for Instance Creation P.14 (6-1)

1.2.8. Every xbrli:context element must appear in at least one contextRef attribute in the same instance.

Unused xbrli:context elements have no benefit to users and are easily removed by the filer before filing.

Corresponding rules:

EFM 6.5.8

EDINET Guideline for Instance Creation P.17 (6-2)

1.2.9. If the financial statements represent a reporting period of one quarter or longer, then the same date must not appear as the content of both an xbrli:startDate and an xbrli:endDate in an instance.

Note that XBRL 2.1 interprets a date used as a context start date as “midnight at the beginning of” that day. A date used as an instant or endDate in a context means “midnight at the end of” that day.

For example, a company reporting at a May 31st, 2009 fiscal year-end will have contexts whose end date-time is midnight at the end of 2008-05-31 (the prior fiscal year) and contexts whose start date-times are midnight at

the beginning of 2008-06-01 (the current fiscal year). It will not have any contexts with start date-time of midnight at the beginning of 2008-05-31, and no contexts with end date-time of midnight at the end of 2008-06-01.

Corresponding rules:

EFM 6.5.9

1.2.10. Element xbrli:xbrl must not have duplicate child xbrli:unit elements.

Element xbrli:xbrl must not have equivalent child xbrli:unit elements. Units are equivalent if they have equivalent measures or equivalent numerator and denominator. Measures are equivalent if their contents are equivalent QNames. Numerators and Denominators are equivalent if they have a set of equivalent measures.

Corresponding rules:

EFM 6.5.11

1.2.11. An instance must not have more than one fact having the same element name, equal contextRef attributes, and if they are present, equal unitRef attributes and xml:lang attributes, respectively.

An instance must not have more than one fact having S-Equal element names, equal contextRef attributes, and if they are present V-Equal, unitRef attributes and xml:lang attributes, respectively. A fact is an occurrence in an instance of an element with a contextRef attribute. The values of the id attribute and the text content of the element are not relevant to detection of duplicate facts. Other rules forbidding equivalent xbrli:context and xbrli:unit elements ensure that duplicate values of the contextRef and unitRef attributes can be detected without dereferencing.

The predicate V-Equal is as defined in the XBRL 2.1 specification. The V-Equal test is sensitive to the underlying data type, so the decimals attribute of '-6' is V-Equal to decimals '-06.0'. In unusual cases the same fact may be presented with different levels of detail, such as "123456 Shares with decimals equal to 'INF'", and "120000 Shares with decimals equal to '-3'". Instead of including both facts in the instance, the instance should contain only the more precise one. Duplicate facts have no benefit to users and are easily consolidated by the filer before filing.

Corresponding rules:

EFM 6.5.12

EDINET Guideline for Instance Creation P.31 (8-5)

1.2.12. The default value of the xml:lang attribute on non-numeric facts and on link:footnote is equal to default language.

XBRL 2.1 does not specify a default value for the xml:lang attribute, but an Global Filing Manual instance assumes one defined as a default language in a given disclosure system.

Corresponding rules:

EFM 6.5.13

1.2.13. An instance having a fact with non-nil content and the xml:lang attribute of value different than default language must also contain a fact using the same element and all other attributes with an xml:lang attribute that represents the default language.

For example, if English is specified as the default language the English fact below can appear in an instance without the French fact, but the French fact cannot appear without the English fact:

<eg:q contextRef='x'>yes</eg:q>

<eg:q contextRef='x' xml:lang='fr'>oui</eg:q>

Corresponding rules:

EFM 6.5.14

1.2.14. If the un-escaped content of a fact with base type nonnum:escapedItemType contains the "<" character followed by a QName and whitespace, "/>" or ">", then the un-escaped content must contain only a sequence of text and XML nodes.

The "<" character may appear in the text content of an XML element as "<", "<", "<" or some other guise; when it appears, the content of the element will then be "un-escaped" for analysis. If "<" is followed by a QName and whitespace, then the content is tested for XML well-formedness.

Example XBRL	Text After "un-escaping"	Valid
<eg:AcidityTextBlock> pH<1.0 </eg:AcidityTextBlock>	pH < 1.0	Yes. Without a QName the unescaped content is not interpreted as markup.
<abc:InventoryTextBlock contextRef="x">Inventory
 </abc:InventoryTextBlock>	Inventory 	No
<abc:InventoryTextBlock contextRef="x">3. Inventory </abc:InventoryTextBlock>	3. Inventory	Yes
<eg:BenchmarkTextBlock> The <i>S&P 500®</i> Index </eg:BenchmarkTextBlock>	The <i>S&P 500®</i> Index	Yes

Some software applications may render the resulting content of the element as if it was embedded in an HTML 3.2 document, and well-formed XML is a prerequisite for well-formed HTML. A disclosure system may also accept other variations of HTML such as XHTML. Considering the status of the text as a kind of management assertion, well-formed XML is in the interest of the filer because it decreases the likelihood of incorrect renderings. If the ampersand character must appear in the well-formed XML, it must be doubly quoted as shown in the example above.

Corresponding rules:

EFM 6.5.15

1.2.15. Facts of type escapedItemType whose un-escaped content contains markup must satisfy the content model of the BODY tag as defined in DTD or schema recognised in the disclosure system.

This specifies the circumstances under which content containing escaped markup will be interpreted as specific content (for example HTML as accepted by the US SEC is based on HTML 3.2 elements and entities, with extensions (such as allowing the "style" attribute) and restrictions (such as disallowing the "SPAN" element)).

Corresponding rules:

EFM 6.5.16

1.2.16. The xbrli:xbrl element must not have any facts with the precision attribute.

This applies to the filing only; the word “precision” may be used in other ways by XBRL preparation software.

Corresponding rules:

EFM 6.5.17

EDINET Report Instance Creation Guidelines 8-1-3

1.2.17. A fact is defined to have a footnote if it has an id attribute and a link:footnoteArc to a nonempty link:footnote in the same instance.

Some facts require footnotes. Such a fact must have an id attribute whose value appears in the same instance as the value of an xlink:href attribute on an xlink:loc element having a parent link:footnoteLink element with an xlink:role attribute equal to ‘http://www.xbrl.org/2003/role/link’, a sibling link:footnote element with an xml:lang attribute of default language and an xlink:role attribute of ‘http://www.xbrl.org/2003/role/footnote’, and a link:footnoteArc element with an xlink:arcrole attribute with the xlink:arcrole attribute equal to ‘http://www.xbrl.org/2003/arcrole/fact-footnote’ or equal to fact-explanatoryFact as specified in http://www.xbrl.org/lrr/arcrole/factExplanatory-2009-12-16.xsd whose xlink:from and xlink:to attribute values match the xlink:label attribute of the aforementioned link:loc and link:footnote elements, respectively.

Corresponding rules:

EFM 6.5.18

EDINET Guideline for Instance Creation P.32 (Chapter 9)

1.2.18. An instance covering a reporting period must contain a required context that is an xbrli:context having xbrli:startDate equal to 00:00:00 on the first day of the reporting period and xbrli:endDate equal to 24:00:00 on its last day.

For example, this rule applies to a filing representing quarterly financial statements for the last calendar quarter of 2009, with xbrli:startDate equal to ‘2009-10-01’ and xbrli:endDate equal to ‘2009-12-31’. Many filings require a second Required Context. Required contexts are distinguished by having no xbrli:segment or xbrli:scenario elements.

Corresponding rules:

EFM 6.5.19

1.2.19. A link:footnoteLink element must have no children other than link:loc, link:footnote, and link:footnoteArc.

Although valid XBRL 2.1, custom elements in the substitution groups of link:loc, link:footnote or link:footnoteArc have no value to users.

Corresponding rules:

EFM 6.5.27

1.2.20. The xlink:role attribute of a link:footnote element must be defined in the XBRL Specification 2.1.

Corresponding rules:

EFM 6.5.28

EDINET Guideline for Instance Creation P.3 (Chapter1-2)

1.2.21. The xlink:role attribute of a link:loc element must be empty, or defined in the XBRL Specification 2.1.

Corresponding rules:

EFM 6.5.29

EDINET Guideline for Instance Creation P.3 (Chapter1-2)

1.2.22. The xlink:arcrole attribute of a link:footnoteArc element must be defined in the XBRL Specification 2.1 or be equal to fact-explanatoryFact as specified in <http://www.xbrl.org/lrr/arcrole/factExplanatory-2009-12-16.xsd>.

Corresponding rules:

EFM 6.5.30

EDINET Guideline for Instance Creation P.3 (Chapter1-2)

1.2.23. A link:footnoteLink link:loc xlink:href attribute must start with the sharp sign "#".

Occurrences of link:footnote in an instance can only refer to facts in that instance. The target of a link:footnote locator xlink:href attribute may be an element with xsi:nil='true', so filers should not assume that a "nil" fact is completely equivalent to a "missing" fact.

Corresponding rules:

EFM 6.5.32

1.2.24. Every nonempty link:footnote element must be linked to at least one fact.

A nonempty link:footnote element must have an xlink:label attribute equal to an xlink:to attribute of a sibling link:footnoteArc. Footnotes with text must not "dangle". By contrast, a link:loc element that is not connected by a link:footnoteArc is legal syntax.

Corresponding rules:

EFM 6.5.33

1.2.25. Dates in period element of the context must comply with yyyy-mm-dd format. No time is allowed in the value for dates.

Corresponding rules:

EDINET Report Instance Creation Guidelines 6-4

1.2.26. Non significant digits for values for numeric facts MUST be equal to "0".

Corresponding rules:

EDINET Report Instance Creation Guidelines 8-1-1

1.2.27. An instance document must not contain unused units.

Corresponding rules:

FRIS 2.7.2

1.2.28. Instance document must use the same namespace prefixes as used in the XBRL schemas or conformance suite instances together with the recommended default namespace prefix for all namespaces.

Below is a list of XBRL schemas for the core document files that are supported by disclosure systems following Global Filing Manual (e.g. instance, linkbase, XLink documents). The namespace that represents each

document must be used in the form as shown. A recommended prefix that represents each namespace is provided. The location of the actual schema file is also identified.

1. Taxonomy schema for XBRL	
a. Namespace name:	http://www.xbrl.org/2003/instance
b. Recommended prefix:	xbrli
c. Location of file:	http://www.xbrl.org/2003/xbrl-instance-2003-12-31.xsd
2. Schema for XML instance	
a. Namespace name:	http://www.w3.org/2001/XMLSchema-instance
b. Recommended prefix:	xsi
c. Location of file:	http://www.w3.org/2001/XMLSchema-instance.xsd
3. Taxonomy schema for XML	
a. Namespace name:	http://www.w3.org/2001/XMLSchema
b. Recommended prefix:	xsd (some taxonomies use the xs: prefix instead of xsd)
c. Location of file:	http://www.w3.org/2001/XMLSchema.xsd
4. XBRL linkbase schema constructs	
a. Namespace name:	http://www.xbrl.org/2003/linkbase
b. Recommended prefix:	link
c. Location of file:	http://www.xbrl.org/2003/xbrl-linkbase-2003-12-31.xsd
5. XBRL simple and extended link constructs	
a. Namespace name:	http://www.xbrl.org/2003/XLink
b. Recommended prefix:	xl
c. Location of file:	http://www.xbrl.org/2003/xl-2003-12-31.xsd
6. XLink attribute specification	
a. Namespace name:	http://www.w3.org/1999/xlink
b. Recommended prefix:	xlink
c. Location of file:	http://www.xbrl.org/2003/xlink-2003-12-31.xsd
7. Reference Parts schema (FRTA 1.0)	
a. Namespace name:	http://www.xbrl.org/2004/ref
b. Recommended prefix:	ref
c. Location of file:	http://www.xbrl.org/2004/ref-2004-08-10.xsd
8. Reference Parts schema (FRTA 1.0 revised)	
a. Namespace name:	http://www.xbrl.org/2006/ref
b. Recommended prefix:	ref
c. Location of file:	http://www.xbrl.org/2006/ref-2006-02-27.xsd
9. Dimensions taxonomy specification	
a. Namespace name:	http://xbrl.org/2005/xbrldt
b. Recommended prefix:	xbrldt
c. Location of file:	http://www.xbrl.org/2005/xbrldt-2005.xsd
10. Dimensions instance specification	
a. Namespace name:	http://xbrl.org/2006/xbrldi
b. Recommended prefix:	xbrldi
c. Location of file:	http://www.xbrl.org/2006/xbrldi-2006.xsd

In addition to the core XBRL schema files in the table above, disclosure system supports additional recognised schema and linkbase files. Different types of filings at different times may be permitted (or required) to

reference certain recognised schemas and linkbases. Filings must always refer to recognized files at the specified URI locations.

Corresponding rules:

EFM 6.2

FRIS 2.1.5, 2.1.6

1.3. Syntax of Filer Extension Schemas

This section defines rules governing the syntax restrictions on filed schemas. A valid Global Filing Manual schema is a valid XBRL 2.1 schema, but not all valid XBRL 2.1 schemas are valid Global Filing Manual schemas.

1.3.1. The `xsd:schema` must not have an `xsd:include` element.

This rule does not apply to schemas in a standard taxonomy. There is one namespace per `xsd:schema` element and therefore no “chameleon schemas”, and additional XBRL 2.1 syntax restrictions apply. The `elementFormDefault` attribute is usually “qualified” and the `attributeFormDefault` attribute usually “unqualified”, but there are no formal restrictions on the values of these attributes and no formal restrictions on the `formDefault` attribute.

Corresponding rules:

EFM 6.7.1

1.3.2. If an `xsd:import` element has a namespace attribute equal to a standard taxonomy schema, then its `schemaLocation` attribute must be the standard taxonomy assigned to that namespace.

Corresponding rules:

EFM 6.7.2

EDINET *Guideline for Extension Taxonomy P.16 (Chapter 2-5)*

1.3.3. The `xsd:schema` `targetNamespace` attribute must not equal the `targetNamespace` attribute of any standard taxonomy schema.

The authority part of a valid URI is the part after ‘//’ and before the subsequent ‘/’ character.

Corresponding rules:

EFM 6.7.3

1.3.4. The `targetNamespace` attribute must match `http://{authority}/{versionDate}`

The filer-specific schema has a unique `targetNamespace` attribute name for each schema. Namespaces are not to be confused with external references even though they may appear to have very similar formats. An external reference describes the location of a particular file with the intent of accessing the contents of that file. A namespace, on the other hand, is a name that identifies elements that belong to a particular markup vocabulary. However, since they function very differently, restrictions that are placed on external references do not apply to namespaces. Since a particular instance document is expected to reference multiple vocabularies, namespaces provide a convention by which each vocabulary is uniquely identified. This avoids problems of recognition and collision of similarly named elements from different vocabularies appearing in XBRL documents.

Corresponding rules:

EFM 6.7.4

1.3.5. The targetNamespace attribute must be a valid URI with an {authority} that is either a domain name controlled by the publisher of the schema, a domain name controlled by the filer, or if neither exists, then a mnemonic name for the filer such as its ticker symbol.

From time to time, regulatory, accounting or other authorities may publish schemas to support new reporting rules. Until such schemas are added to the standard taxonomy lists, filers may provide a copy of such a schema in their filing. In such a case, the targetNamespace attribute will contain an {authority} different from the filer. The filer must own or control the authority name; for example, “example.com” could only be used by Example Inc. itself. The {authority} used in the targetNamespace attribute must match the {authority} in the URI of any role or arc role declarations.

Corresponding rules:

EFM 6.7.5

1.3.6. The targetNamespace attribute must be a valid URI with a {versionDate} in ISO 8601 format that identifies the release date of the schema.

Examples:

- <http://abcinc.com/> 2008-03-31
- <https://www.definc.us/2008-12-31>

Counterexamples:

- <http://iasb.org/abc/2008-03-31>
- <http://abcinc.com/2009>

The targetNamespace attribute of the schema is different than the scheme attribute in the xbrli:identifier element; the scheme attribute refers to the disclosure system and the targetNamespace attribute does not. The calendar date of {versionDate} should never be later than the calendar date in the document name of the filing, although it could be the same or earlier if the contents of the schema file remain unchanged from a previous filing.

Corresponding rules:

EFM 6.7.6

1.3.7. Element xsd:schema must bind a non-empty recommended namespace prefix for the targetNamespace attribute that does not contain the underscore character.

A mnemonic such as the ticker symbol of the company in lowercase is suitable.

For example,

```
<xsd:schema xmlns:abc='http://abcinc.com/2008-03-31' ...>
```

Corresponding rules:

EFM 6.7.7

EDINET Guideline for Extension Taxonomy P.40 (Chapter 5-1-2)

1.3.8. Element xsd:schema must not contain any occurrences of "embedded" linkbases.

Elements in the “link” namespace having a type attribute equal to ‘extended’, ‘arc’, ‘resource’ or ‘locator’ must not occur anywhere in an xsd:schema.

Corresponding rules:

EFM 6.7.8

1.3.9. The roleURI attribute of a link:roleType element must begin with the same {scheme} and {authority} as the targetNamespace attribute.

For example, in an xsd:schema with a targetNamespace attribute equal to 'http://abcinc.com/2009-02-29', the string 'http://abcinc.com/' must start the roleURI attribute value of any link:roleType. The roleURI attribute should be considered permanent, to be used in future filings. In a link:roleType declaration the roleURI attribute should end with "/role/" and a mnemonic name in LC3 format.

For example,

```
<link:roleType @roleURI="http://abcinc.com/role/StatementOfIncome"> ...</link:roleType>
```

Corresponding rules:

EFM 6.7.9

1.3.10. A DTS must not contain more than one link:roleType element with equal values of the roleURI attribute.

Duplicate role declarations in a single schema file are forbidden by XBRL 2.1; this forbids duplicate role declarations in the instance DTS as a whole.

Corresponding rules:

EFM 6.7.10

EDINET Guideline for Extension Taxonomy P46 (Chapter 6)

1.3.11. A link:roleType declaration with link:usedOn containing link:presentationLink, link:definitionLink or link:calculationLink must also have a link:usedOn for the other two.

This rule is relevant to three of the linkbase elements whose type attribute is fixed at 'extended' as shown in the table below.

type attribute	QName in link:usedOn	Declared by
extended	link:calculationLink	link:roleType
extended	link:definitionLink	link:roleType
extended	link:presentationLink	link:roleType

Corresponding rules:

EFM 6.7.11

EDINET Guideline for Extension Taxonomy P.38 (Chapter 5-1)

1.3.12. A link:roleType element must contain a link:definition child element whose content will communicate the title of the financial statement section and the level of facts in the instance that a presentation arc in the base set of that role would display.

Filers must choose a scheme for their sort code and declare separate role types so as to achieve the following:

1. Each statement must appear in at least one base set, in the order the statement appeared in the financial statements.
2. If the presentation relationships of more than one base set contains the facts of a statement (to achieve a layout effect, such as a set of rows, followed by a table with a dimension axis on the vertical, followed by another set of rows) then the {SortCode} of that base set must sort in the order that the rows of the statement will be displayed.

3. A statement that contains parenthetical disclosures on one or more rows must have a base set immediately following that of the statement, where all facts in its parenthetical disclosures appear in presentation relationships.
4. All base sets containing the contents of notes to financial statements must appear after base sets containing the contents of statements.
5. A text block for each note to financial statements must appear in at least one presentation relationship in a base set.
6. Each base set for a “note to financial statements as a text block” presentation link must contain one presentation relationship whose target is a text block.
7. Base sets with presentation relationships for a note to financial statement tagged at level 2 must appear after all base sets tagged at level 1.
8. A base set with presentation relationships for a note to financial statement tagged at level 3 must appear after all base sets tagged at level 2.
9. A base set with presentation relationships for a note to financial statement tagged at level 4 must appear after all base sets tagged at level 3.

The {Title} is the text that follows “ - ” in the link:definition. The text should distinguish to a human reader what each separate relationship group contains. The table below shows an example in which the filer has simply used a two-digit sequence number. The {Title} must not contain scale or units (such as “in millions of US dollars except per share data”) text.

Example link:definition Text	Type of Facts in Presentation Links			
	Each Footnote as a Text Block	Each Accounting Policy as a Text Block	Each Table in a Footnote as a Text Block	Individual Values or Narratives
01 - Statement - Statement of Income				Yes
02 - Statement - Balance Sheet				Yes
03 - Statement - Balance Sheet (Parenthetical)				Yes
04 - Statement - Cash Flows				Yes
05 - Statement - Changes in Equity				Yes
06 - Statement - Comprehensive Income				Yes
07 - Disclosure - Accounting Policies	Yes			
08 - Disclosure - Inventories	Yes			
09 - Disclosure - Earnings per Share	Yes			
10 - Disclosure - Unearned Revenue	Yes			
11 - Disclosure - Equity	Yes			
12 - Disclosure - Accounting Policies, by Policy		Yes		
13 - Disclosure - Inventories (Tables)			Yes	
14 - Disclosure - Unearned Revenue (Tables)			Yes	
15 - Disclosure - Equity, Share Repurchases (Table)			Yes	
16 - Disclosure - Equity, Dividends (Table)			Yes	
17 - Disclosure - Inventories (Detail)				Yes
18 - Disclosure - Unearned, by Component (Detail)				Yes
19 - Disclosure - Unearned, by Segment (Detail)				Yes
20 - Disclosure - Equity, Share Repurchases (Detail)				Yes

21 - Disclosure - Equity, Dividends (Detail)				Yes
--	--	--	--	-----

Corresponding rules:

EFM 6.7.12

1.3.13. The link:definition must not have leading or trailing XML whitespace or newlines.

Corresponding rules:

EFM 6.7.12

1.3.14. A link:roleType element must contain a link:definition child element whose content will sort alphanumerically into the order that statements and notes to financial statements appear in the financial statements.

The link:roleType link:definition text must match the following pattern:

{SortCode} - {Title}

The meaning of the base set appears in {Title}. {SortCode} is used only to sort base sets for display. The sort code is sorted alphanumerically, not numerically, so "10" would appear before "2".

Corresponding rules:

EFM 6.7.12

1.3.15. The arcroleURI attribute of a link:arcroleType element must begin with the same {scheme} and {authority} parts as the targetNamespace attribute.

For example, in a schema with a targetNamespace attribute `http://abcinc.com/2009-02-29`, the string `http://abcinc.com/` must start the arcroleURI attribute of any link:arcroleType. The arcroleURI attribute should be considered permanent, to be used in future filings. In a link:arcroleType declaration the arcroleURI attribute should end with `"/arcrole/"` followed by a mnemonic name in LC3 format.

For example,

```
<link:arcroleType @arcroleURI="http://abcinc.com/arcrole/SpecialRelationship"> ...</link:arcroleType>
```

Corresponding rules:

EFM 6.7.13

1.3.16. A DTS must not contain more than one link:arcroleType element with equal values of the arcroleURI attribute.

Corresponding rules:

EFM 6.7.14

1.3.17. A link:arcroleType element must have a nonempty link:definition.

The link:arcroleType link:definition text should explain the purpose of the arc role. The content of link:usedOn is the QName of an arc-type element; however, note that there are additional rules that restrict what may be used as the value of the xlink:arcrole attribute in instances, schemas and linkbases.

Corresponding rules:

EFM 6.7.15

EDINET Guideline for Extension Taxonomy P.64 (Chapter 11-3)

1.3.18. The name attribute of an xsd:element must not equal any xsd:element name attribute in a standard taxonomy schema that appears in the same instance DTS.

It is not necessary to compare the @name attribute to all element declarations in all standard taxonomy schemas. Only those schemas that are present in the DTS of a specific instance being validated are relevant.

Corresponding rules:

EFM 6.7.16

EDINET Guideline for Extension Taxonomy P.51 (Chapter 7)

1.3.19. The id attribute of an xsd:element must consist of the recommended namespace prefix of the element namespace, followed by one underscore, followed by its name attribute.

Corresponding rules:

EFM 6.7.17

EDINET Guideline for Extension Taxonomy P.51 (Chapter 7-1)

1.3.20. The nillable attribute value of an xsd:element must equal "true".

Corresponding rules:

EFM 6.7.18

EDINET Guideline for Extension Taxonomy P.53 (Chapter 7-8)

1.3.21. The xsd:element substitutionGroup attribute must not be a member of a substitution group with head "xbrli:tuple" to represent financial statements.

Corresponding rules:

EFM 6.7.19

1.3.22. An xsd:element must not have an xbrldt:typedDomainRef attribute.

Corresponding rules:

EFM 6.7.20

1.3.23. If the abstract attribute of xsd:element is "true", then the xbrli:periodType attribute must be "duration".

Corresponding rules:

EFM 6.7.21

1.3.24. If the abstract attribute of xsd:element is "true", then the type attribute must be "xbrli:stringItemType".

Corresponding rules:

EFM 6.7.22

1.3.25. The xsd:element substitutionGroup attribute must equal "xbrldt:dimensionItem" if and only if the name attribute ends with "Axis".

An element is defined to be an "Axis" if and only if its substitutionGroup attribute equals 'xbrldt:dimensionItem'.

Corresponding rules:

EFM 6.7.23

1.3.26. The xsd:element name attribute must ends with "Table" if and only if substitutionGroup attribute equals "xbrldt:hypercubeItem".

An element is defined to be a "Table" if and only if its substitutionGroup attribute equals 'xbrldt:hypercubeItem'.

Corresponding rules:

EFM 6.7.24

1.3.27. If the xsd:element substitutionGroup attribute is not equal to "xbrldt:dimensionItem" or equal to "xbrldt:hypercubeItem" then it must equal "xbrli:item" to represent line item from financial statements.

Corresponding rules:

EFM 6.7.25

1.3.28. If xsd:element name attribute ends with "LineItems" then the abstract attribute must equal "true".

Corresponding rules:

EFM 6.7.26

1.3.29. The xsd:element name attribute must end with "Domain" or "Member" if and only if the type attribute equals "nonnum:domainItemType".

An element is a "Domain" if and only if its name attribute ends with 'Domain'. An element is a "Member" if and only if its name attribute ends with 'Member'.

Corresponding rules:

EFM 6.7.27

1.3.30. If xsd:element type attribute equals "nonnum:domainItemType" then the xbrli:periodType attribute must equal "duration".

Corresponding rules:

EFM 6.7.28

1.3.31. If xsd:element type attribute equals "nonnum:domainItemType" then the abstract attribute must equal to "true".

1.4. Syntax of All Linkbases

This section defines rules governing syntax of linkbases. A valid Global Filing Manual linkbase is a valid XBRL 2.1 linkbase, but not all valid XBRL 2.1 linkbases are valid Global Filing Manual linkbases.

1.4.1. A link:linkbase must be XML Linking Language (XLink) 1.0 valid.

Two syntax rules about elements with a type attribute equal to 'extended' ("extended-type links") require emphasis:

1. The scope of the xlink:label attribute is only its enclosing extended-type link. The xlink:label attribute does not function like the XML id attribute, which must be unique in an entire document. Therefore, the same value of the xlink:label attribute may appear on any number of elements, so long as those elements appear in different extended-type links.
2. Two elements with a type attribute equal to 'arc' ("arcs") in the same extended-type link must not have the same values for the xlink:from attribute and the xlink:to attribute, even if their xlink:arcrole

attribute is different. However, this prohibition against duplicate arcs is unrelated to any XBRL or Global Filing Manual level syntax rule that forbids equivalent arcs (XBRL 2.1 section 3.5.3.9.7.4). Reliance on these two rules of XLink syntax yields the meaning of the term 'base set' of relationships as defined in XBRL 2.1 and used elsewhere in this manual.

Corresponding rules:

EFM 6.9.1

1.4.2. An effective arc exists between a target and source element when there is an element with an xlink:type attribute of "arc" and a use attribute of "optional" that has a higher value of the priority attribute than any equivalent arc in its base set.

This is a definition of the term 'effective relationship' for the scope of this manual. Equivalent relationships are defined by XBRL 2.1.

Corresponding rules:

EFM 6.9.2

1.4.3. A link:linkbase in a filing must have no ineffectual arcs.

Elements of the xlink:type='arc' attribute are ineffectual when there is an equivalent relationship with the same or higher priority. An arc-type element with use="prohibited" always takes precedence over arcs with use="optional" when their priorities are the same.

Examples:

- A relationship with a use attribute equal to 'prohibited' with no equivalent relationship is ineffectual.
- A relationship with a use attribute equal to 'prohibited' with the priority attribute less than the priority attribute of an effective relationship is ineffectual.
- A relationship in a filing may cause a relationship in a standard taxonomy to become ineffective.

Corresponding rules:

EFM 6.9.3

1.4.4. The xlink:role attribute of an element with a type="extended" attribute or a type="resource" attribute must be present and must not be empty.

Corresponding rules:

EFM 6.9.4

1.4.5. The xlink:role attribute of an element with an xlink:type attribute of "resource" must be present and must be defined in XBRL 2.1 or a standard taxonomy or in a file recognised in the disclosure system.

Custom roles are acceptable on extended links but not on resources.

Corresponding rules:

EFM 6.9.5

1.4.6. The text preceding a sharp sign "#" in an xlink:href attribute of link:arcroleRef must be a standard taxonomy or in a file recognised in the disclosure system.

No custom arc roles.

Corresponding rules:

EFM 6.9.6

1.4.7. All extended link elements in a single linkbase must have the same namespace and local name.

An element is an extended link if its type attribute is equal to 'extended'. A single linkbase cannot mix different kinds of link elements.

Corresponding rules:

EFM 6.9.7

1.4.8. The value of the priority attribute must be strictly less than 10.

Future standard taxonomy linkbases may need to prevent specific relationships from being prohibited.

Corresponding rules:

EFM 6.9.9

1.5. Syntax of Label Linkbases

This section defines rules governing the syntax restrictions on label linkbases. A valid Interactive Data label linkbase is a valid XBRL 2.1 label linkbase, but not all valid XBRL 2.1 label linkbases are valid Global Filing Manual label linkbases.

1.5.1. An element used in a fact or `xbrldi:explicitMember` in an instance must have a default language standard label in the DTS of that instance.

An element "has an default language standard label" in a DTS if there is an effective relationship with the defining `xsd:element` source, an `xlink:arcrole` attribute equal to 'http://www.xbrl.org/2003/role/concept-label' and target `link:label` with an `xml:lang` attribute equal to default language and an `xlink:role` attribute equal to 'http://www.xbrl.org/2003/role/label'. This rule is particularly relevant to elements declared in the filer extension schema, because a document that could contain a `link:label` for a filer-specific element would never appear in a standard taxonomy, and therefore has to be in a label linkbase in the same filing. It is not necessary for the DTS to have a standard label for all elements declared in the DTS.

Corresponding rules:

EFM 6.10.1

1.5.2. An element used in a fact or `xbrldi:explicitMember` in an instance must have at most one label for any combination of the `xlink:role` attribute and the `xml:lang` attribute in the DTS of that instance.

An element "has a label" in a DTS if there is an effective relationship with the defining `xsd:element` source, an `xlink:arcrole` attribute equal to 'http://www.xbrl.org/2003/role/label' and target `link:label` with an `xml:lang` attribute of the default language. This rule is particularly relevant to elements declared in the company schema, because a document that could contain a `link:label` for a filer-specific element would never appear in a standard taxonomy, and therefore has to be in a label linkbase in the same filing.

Corresponding rules:

EFM 6.10.2

1.5.3.If an element used in an instance is assigned a label in the DTS whose xml:lang attribute reflects default language, then the DTS must also contain a link:label for the same element and all other attributes with an xml:lang attribute reflecting the default language.

Non-default language labels may appear for elements in the schema, but they must be translated into default language if they are used in an instance.

Corresponding rules:

EFM 6.10.3

1.5.4.The DTS of an instance must have no distinct elements having the same default language standard label.

Users will most often see the default language standard label of a concept, and it decreases clarity if distinct elements have the same label. Note that there is no restriction on elements having duplicated labels for other values of an xlink:role attribute.

Corresponding rules:

EFM 6.10.4

1.5.5.A label linkbase must not have a documentation label for an element defined in a standard taxonomy.

The rule prevents an extension linkbase from removing the documentation from a published element. This is important for comparability and to prevent contradictory definitions for elements.

Corresponding rules:

EFM 6.10.5

1.5.6.The text of link:label must be a string of fewer than 511 characters.

Corresponding rules:

EFM 6.10.5

1.5.7.The text of link:label must not have any consecutive XML whitespace characters and no occurrences of '<' unless its xlink:role attribute is 'http://www.xbrl.org/2003/label/documentation'.

Corresponding rules:

EFM 6.10.6

1.5.8.The text of link:label must not have leading or trailing XML whitespace.

All labels may contain the XML whitespace anywhere except at their start or end.

Corresponding rules:

EFM 6.10.8

1.5.9. Assign a documentation label for each element declared in the filer extension schema.

1.6. Syntax of Presentation Linkbases

This section defines rules governing the syntax restrictions on presentation linkbases. A valid Global Filing Manual presentation linkbase is a valid XBRL 2.1 presentation linkbase, but not all valid XBRL 2.1 presentation linkbases are valid Global Filing Manual presentation linkbases.

1.6.1. The link:presentationArc element requires an order attribute.

Corresponding rules:

EFM 6.12.1

EDINET Guideline for Extension Taxonomy P60 (Chapter 9-3)

1.6.2. All effective presentation arcs in the same base set with the same source element must have distinct values of the order attribute.

This rule ensures an intentional ordering of facts when displayed.

Corresponding rules:

EFM 6.12.2

EDINET Guideline for Extension Taxonomy P60 (Chapter 9-3)

1.6.3. An element used in an instance must participate in at least one effective presentation arc in the DTS of that instance.

An element “participates in” a presentation relationship in a DTS if it is a source or target of a presentation relationship in that DTS. An element is “a source of a presentation relationship” in a DTS if there is an effective relationship with the defining xsd:element source and an xlink:arole attribute equal to ‘http://www.xbrl.org/2003/role/parent-child’ in a document of that DTS. An element is “a target of a presentation relationship” in a DTS if there is an effective relationship with the defining xsd:element target and an xlink:arole attribute equal to ‘http://www.xbrl.org/2003/role/parent-child’ in a document of that DTS. Every fact must be displayable in some way using presentation relationships. This rule is relevant to all elements but particularly so to elements declared in the company schema, because a linkbase that could contain a link:loc element for a filer-specific element would never appear in a standard taxonomy, and therefore has to be in a linkbase in the same filing. Elements used in an instance only as QNames in xbrldi:explicitMember must nevertheless have a presentation relationship in the DTS of that instance. It is not necessary for the DTS to have a presentation relationship for all elements declared in the DTS.

Corresponding rules:

EFM 6.12.3

EDINET Guideline for Extension Taxonomy P60 (Chapter 9-3)

1.6.4. If an element used in an instance is the target in the instance DTS of an effective presentation arc having a nonempty preferredLabel attribute, then the element must have a default language label with a value of the xlink:role attribute equal to the preferredLabel attribute.

A presentation relationship that would be used to render an instance cannot have an undeclared preferred label.

Corresponding rules:

EFM 6.12.4

1.6.5. If an element used in an instance is the target in the instance DTS of more than one effective presentation arc in a base set with the same source element, then the presentation arcs must have distinct values of the preferredLabel attribute.

This rule prevents the same fact from appearing twice in a set of line items, except when it is, for example, shown as both the beginning and ending value of a roll forward.

Corresponding rules:

EFM 6.12.5

EDINET Guideline for Extension Taxonomy P54 (Chapter 8)

1.7. Syntax of Calculation Linkbases

This section defines rules governing the syntax restrictions on calculation linkbases. A valid Global Filing Manual calculation linkbase is a valid XBRL 2.1 calculation linkbase, but not all valid XBRL 2.1 calculation linkbases are valid Global Filing Manual calculation linkbases.

1.7.1. Element link:calculationArc requires an order attribute.

Corresponding rules:

EFM 6.14.1

EDINET Guideline for Extension Taxonomy P62 (Chapter 10-3)

1.7.2. Element link:calculationArc requires a weight attribute value equal to 1 or -1.

Corresponding rules:

EFM 6.14.2

EDINET Guideline for Extension Taxonomy P62 (Chapter 10-3)

1.7.3. The source and target of an effective calculation arc must have equal values of the xbrli:periodType attribute.

Facts of elements with different values of the xbrli:periodType attribute must have different values of the contextRef attribute and therefore the calculation relationship between them has no meaning.

Corresponding rules:

EFM 6.14.3

EDINET Guideline for Extension Taxonomy P63 (Chapter 10-5)

1.7.4. There must be no directed cycles in effective relationships having arc role <http://www.xbrl.org/2003/role/summation-item>.

This rule prevents a fact from participating in a summation that includes itself.

Corresponding rules:

EFM 6.14.4

1.7.5. If an instance contains non-empty facts for the source and target of an effective calculation relationship, then at least one effective presentation relationship that the source and target appear in must be either (a) a relationship with each other or (b) two relationships with any other elements that share a single extended link.

When facts participate in a calculation together, they must be shown with presentation relationships in the same relationship group, although not necessarily adjacent to each other.

Corresponding rules:

EFM 6.14.5

1.8. Syntax of Definition Linkbases

This section defines rules governing the syntax restrictions on definition linkbases. A valid Global Filing Manual definition linkbase is a valid XBRL 2.1 definition linkbase, but not all valid XBRL 2.1 definition linkbases are valid Global Filing Manual definition linkbases.

1.8.1. Element link:definitionArc requires an order attribute.

This ensures an intentional displayed order of definition relationships.

Corresponding rules:

EFM 6.16.1

EDINET Guideline for Extension Taxonomy P64 (Chapter 11-3)

1.8.2. The DTS of an instance must contain at most one effective arc with an xlink:arcrole attribute equal to "http://xbrl.org/int/dim/arcrole/dimension-default" for each axis source element.

1.8.3. The target of an effective arc with an xlink:arcrole attribute equal to "http://xbrl.org/int/dim/arcrole/dimension-domain" or "http://xbrl.org/int/arcrole/dimension-default" must be of type nonnum:domainItemType.

In this rule both the dimension-domain and the dimension-default arc roles must have a source that is an Axis (xbrldt:dimensionItem); these two rules work together to ensure that each Axis has a meaningful set of domain members.

Corresponding rules:

EFM 6.16.3

1.8.4. The xlink:arcrole attribute "http://xbrl.org/int/dim/arcrole/domain-member" is treated as if it were declared with a cyclesAllowed attribute equal to "none".

For example, company ABC defines, in ifrs:GeographicalAreasAxis, the regions abc:MidwestMember and abc:SoutheastMember, but stpr:KY (Kentucky) cannot be in both regions. This rule also impacts line items, so that the balance at the start and end a roll forward cannot appear twice under a single axis. The same effect is achieved by including only the ending balance in the domain-member relationships, so that the beginning balance will appear simply as the ending balance of the previous period. Tables define the rows and columns (the axes) that cells (the facts) may have. The domain member arc role defines relationships within each row or column, such as those between a parent entity and its reportable segments, among sets of components of equity, and or among geographical areas. Tables become difficult to consistently populate with facts and ambiguous to understand when elements can appear in more than one domain (or member). This rule ensures that any given element does not appear in more than one place along an axis, and will not have any overlapping domain subsets or members. In general, almost every situation that at first appears to call for an Axis with tangled and overlapping subsets of member elements actually turns out to be a case more clearly modelled using two distinct axes.

Corresponding rules:

EFM 6.16.4

1.8.5. The DTS of an instance must contain in each base set, for each source element, at most one effective arc with an xlink:arcrole attribute equal to "http://xbrl.org/int/dim/arcrole/all".

A fact can always appear in more than one Table (hypercube), but this rule prevents a fact from having contradictory meanings in different Tables.

Corresponding rules:

EFM 6.16.5

1.8.6. An effective arc with an xlink:arcrole attribute equal to "http://xbrl.org/int/dim/arcrole/notAll" must have an xbrldt:closed attribute equal to "false".

A closed negative hypercube is better modelled with an open positive hypercube.

Corresponding rules:

EFM 6.16.6

1.8.7. An axis element of a negative table must appear in a positive table in a definitionLink having an equal value of xlink:role.

An axis cannot appear as an axis of a negative hypercube (that is, axis excluded from a table) unless there are members of that axis in a positive table. Formally, an axis element that is the target of an effective relationship with arcrole equal to 'http://xbrl.org/int/dim/arcrole/hypercube-dimension' that is consecutive from a relationship with arcrole 'http://xbrl.org/int/dim/arcrole/notAll' must also be the target of an effective relationship in a link:definitionLink having the same value of xlink:role and which itself is consecutive from an effective relationship with xlink:arcrole attribute equal to 'http://xbrl.org/int/dim/arcrole/all'. An instance DTS in which the arc role 'http://xbrl.org/int/dim/arcrole/notAll' does not appear will not be affected by this rule.

Corresponding rules:

EFM 6.16.7

1.8.8. The target of an effective relationship with an xlink:arcrole attribute equal to 'http://xbrl.org/int/dim/arcrole/notAll' must not be the target of an effective arc with an xlink:arcrole attribute equal to 'http://xbrl.org/int/dim/arcrole/all' in link:definitionLink elements having equal values of xlink:role."

This rule ensures that a table (hypercube) is not both positive and negative.

Corresponding rules:

EFM 6.16.8

1.8.9. If the value of attribute xbrldt:targetRole on an effective definition relationship is not empty, then that relationship must have at least one effective consecutive relationship (as defined by the XBRL Dimensions 1.0 specification).

The xbrldt:targetRole attribute is used to connect certain definition arcs that appear in different extended link roles. A targetRole attribute that points to no arcs indicates that a table is malformed.

Corresponding rules:

EFM 6.16.9

1.9. Syntax of Reference Linkbases

This section defines rules governing the syntax restrictions on reference linkbases. A valid Global Filing Manual reference linkbase is a valid XBRL 2.1 reference linkbase, but not all valid XBRL 2.1 reference linkbases are valid Global Filing Manual reference linkbases. Note: Although the Reference Linkbase file is a valid attachment type, at the moment it is not used.

1.9.1. An element that has a company specific namespace must not have a reference.

The elements defined in a company extension schema must not have any authoritative references. An `xsd:element` "has a reference" if the DTS of the instance contains an effective reference relationship whose source is that `xsd:element`. A reference linkbase should only be attached to a filing when it is a copy of a linkbase published along with a schema for early adopters. In that situation the schema would have a `targetNamespace` attribute of some authority other than the filer itself.

Corresponding rules:

EFM 6.18.1

2. Semantics

2.1. Semantics of Filings

This section describes the processing and the semantics of filings. A filing contains management assertions of the filer, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.1.1. The XBRL instance documents in a filing must be XBRL 2.1 and XBRL Dimensions 1.0 valid.

Each instance document in the filing is tested separately for XBRL 2.1 validity. In order to increase the likelihood that XBRL documents within an EDGAR filing pass validation, filers are encouraged to validate their XBRL documents for compliance with the XBRL 2.1 Specification prior to filing.

Corresponding rules:

EFM 6.4.3

2.2. Semantics of Instances

This section describes the processing and the semantics of instances. An instance contains management assertions, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.2.1. In an instance reporting a fiscal year, non-numeric facts containing text about any portion of that or a prior year must have a contextRef attribute to an `xbrli:context` for the reporting period year.

For example, in a fiscal year 2009 report a company describes litigation settled in fiscal year 2007. Nevertheless, the disclosure text should be in a context for fiscal 2009. A reporting period begins at 00:00:00 of its first day and ends at 24:00:00 of its last day, which is the XBRL 2.1 default for periods. Only the date, not the time part of the ISO 8601 date-times, should be used in contexts.

Corresponding rules:

EFM 6.6.1

2.2.2. In an instance reporting a fiscal year-to-date, the non-numeric facts containing text about any portion of the year-to-date or prior year must have a contextRef attribute to an xbrli:context representing the year-to-date.

For example, a company completes an acquisition in its second fiscal quarter. In its 3rd quarter fiscal report, the Acquisitions note contains text describing that same acquisition. The 3rd quarter text should be in the context for the first nine months (that is, the year-to-date).

Corresponding rules:

EFM 6.6.1

2.2.3. An instance must contain a fact for each combination of line item and period that appears in the primary financial statements.

For example, a small fragment of a balance sheet:

(in thousands \$)	2007	2006
Land	31,659	31,601

This example corresponds to these two facts for the combination of line item and period:

```
<ifrs:Land unitRef="usd" decimals="-3" contextRef="FY07e">31659000</ifrs:Land>
<ifrs:Land unitRef="usd" decimals="-3" contextRef="FY06e">31601000</ifrs:Land>
```

Corresponding rules:

EFM 6.6.12

2.2.4. The facts representing a line item that appears in the primary financial statements must use the same element in different periods.

For example:

(in thousands \$)	2007	2006
Land and buildings	31,659	31,601

The two facts must not use different elements:

```
<ifrs:Land unitRef="usd" decimals="-3" contextRef="FY07e">31659000</ifrs:Land>
<ifrs:LandAndBuildings unitRef="usd" decimals="-3"
contextRef="FY06e">31601000</ifrs:LandAndBuildings>
```

Use only the more encompassing element ifrs:LandAndBuildings. A consequence of following this rule is that facts for the same filer from filing to filing will usually, though not always, use the same elements.

Corresponding rules:

EFM 6.6.13

2.2.5. An instance must contain a fact for each amount disclosed parenthetically in line items that appears in the primary financial statements.

Example:

(in thousands \$)	2007
Receivables (net of allowance for bad debts of \$200 in 2007)	700

The instance contains two facts:

```
<ifrs:TradeAndOtherCurrentReceivables unitRef="usd" decimals="-3"
contextRef="FY07e">700000</ifrs:TradeAndOtherCurrentReceivables>
<abc:AllowanceForDoubtfulAccountsReceivableCurrent unitRef="usd" decimals="-3"
contextRef="FY07e">200000</abc:AllowanceForDoubtfulAccountsReceivableCurrent>
```

For example, note that even if Receivables had been \$1,000 at the end of 2006 with no allowance for doubtful accounts not material enough to be parenthetically disclosed, that would not make it a gross receivables figure, and the net value would nevertheless be reported as:

```
<ifrs:TradeAndOtherCurrentReceivables unitRef="usd" decimals="-3"
contextRef="FY06e">1000</ifrs:TradeAndOtherCurrentReceivables>
```

Corresponding rules:

EFM 6.6.14

2.2.6. The `xsi:nil="true"` attribute must be used only to convey a value that is different from both "zero" and different from not reporting the fact at all, or to identify a fact detailed only by a `link:footnote`.

For example, a small fragment of a balance sheet:

(in thousands \$)	2007	2006
Investments in associates	-	-

This corresponds to these two facts:

```
<ifrs:InvestmentsInAssociates unitRef="usd" contextRef="FY07e" xsi:nil="true"/>
<ifrs:InvestmentsInAssociates unitRef="usd" contextRef="FY06e" xsi:nil="true"/>
```

Corresponding rules:

EFM 6.6.15

EDINET Guideline for Instance Creation P.23 (Chapter 8-1)

2.2.7. An instance must contain facts containing each complete note to the financial statements and each required disclosure of the financial statements, as a single a "level 1" block of text.

Each non-numeric fact must reflect the same information in the corresponding text in the official HTML/ASCII document. Formatting and layout is relevant for elements of a type attribute `nonnum:escapedItemType`, but not for any other types. A fact of type `nonnum:escapedItemType` whose content represents a disclosure, footnote or schedule in the Original HTML/ASCII Documents must contain escaped HTML to preserve that layout or formatting.

For example, the original text as displayed in a browser:

Dividends

Our Board of Directors declared the following dividends:

Declaration Date		Per Share Dividend
------------------	--	-----------------------

(Fiscal year 2008)

September 17, 2008	\$	0.09
--------------------	----	------

The original HTML 3.2 format text:

```
<B><I>Dividends</I></B><P>Our Board of Directors declared the following dividends:</P>
<TABLE>
```

```

<TR><TH align=left valign=bottom>Declaration Date</TH><TH/><TH colspan=2 width=70>Per Share
Dividend</TH></TR>
<TR><TD align=left><i>Fiscal year 2008</i></TD></TR>
<TR><TD align=left>September 17, 2008</TD><TD/><TD>$</TD><TD align=right>0.09</TD></TR>
</TABLE>

```

This text must appear in a text block. But if all the layout and formatting are removed and whitespace is normalized, the result is much harder to understand:

Dividends Our Board of Directors declared the following dividends:

Declaration Date Per Share Dividend (Fiscal year 2008) September 17, 2008 \$ 0.09

Therefore the entire text must appear as text containing only well-formed XHTML, in which the tags are balanced and the attributes quoted:

```

<ifrs:DisclosureOfCashFlowStatementExplanatory contextRef="FY08Q1">
  &lt;b> &lt;i>Dividends &lt;/i>
  &lt;/b> &lt;p>Our Board of Directors declared the following dividends: &lt;/p> &lt;table> &lt;tr>
  &lt;th
  align="left" valign="bottom" style="border-bottom: 1pt solid black">Declaration Date&lt;/th>
  &lt;th/> &lt;th
  colspan="2" style="width: 70pt; border-bottom: 1pt solid black">Per Share Dividend &lt;/th> &lt;/tr>
  &lt;tr>
  &lt;td align="left"> &lt;i>(Fiscal year 2008) &lt;/i> &lt;/td> &lt;/tr> &lt;tr> &lt;td
  align="left">September 17,
  2008 &lt;/td> &lt;/td/> &lt;/td>&lt;td align="right">0.09 &lt;/td> &lt;/tr> &lt;/table>
</ifrs:DisclosureOfCashFlowStatementExplanatory>

```

Corresponding rules:

EFM 6.6.16

2.2.8. An instance must not contain facts that do not appear in the financial statements with the exception of information which does not constitute the financial statements.

The information in Global Filing Manual format should not be more or less than the information in the financial statements.

Corresponding rules:

EFM 6.6.17

2.2.9. Page headers and footers appearing in an financial statements must not appear in any of the facts or link:footnote elements of an instance.

The term “footer” refers to a layout location on a printed page. The phrase “The accompanying notes are an integral part of these financial statements” is considered a page footer for purposes of this rule.

Corresponding rules:

EFM 6.6.18

2.2.10. For each significant accounting policy within the accounting policies note, an instance must contain a "level 2" fact containing the policy as a block of text.

Notes to the financial statements are represented in instances at four levels of detail.

Corresponding rules:

EFM 6.6.19

2.2.11. An instance must contain each table within each note to the financial statements as a separate "level 3" fact block of text.

Corresponding rules:

EFM 6.6.20

2.2.12. An instance must contain each monetary value, percentage, and number required to be disclosed by relevant regulations in each note to the financial statements, as a "level 4" fact.

An instance may also contain dates and narrative disclosures as level 4 facts. Level 4 facts appear separately from the text blocks of levels 1 to 3; the fact may have nonmaterial changes to the formatting of dates and possibly other facts, for example:

Dividends

Our Board of Directors declared the following dividends:

Declaration Date	Per Share Dividend
------------------	-----------------------

(Fiscal year 2008)

September 17, 2008	\$ 0.09
--------------------	---------

This table contains only two facts, in which "September 17, 2008" becomes "2008-09-17" and "0.09" becomes ".09":

```
<abc:DividendsPayableDeclarationDate contextRef="...">2008-09-17</us-
abc:DividendsPayableDeclarationDate>
<abc:DividendsPayablePerShare contextRef="..." unitRef="usdPerShare"
decimals="INF">.09</abc:DividendsPayablePerShare >
```

For another example, the sentence "Accretion expense declined from 30 thousand to six thousand in 2009" contains two facts:

```
<abc:AccretionExpense unitRef="usd" decimals="-3"
contextRef="FY08">30000</abc:AccretionExpense>
<abc:AccretionExpense unitRef="usd" decimals="-3"
contextRef="FY09">6000</abc:AccretionExpense>
```

Corresponding rules:

EFM 6.6.22

2.2.13. An element used in numeric facts representing amounts must have an xbrli:periodType attribute that is the same as the amounts reported.

An element with an xbrli:periodType attribute of "instant" has values that are only measurable at a point in time; the value "duration" is used for all other elements, including textual information. Most elements in the standard taxonomies have the "duration" period type. Elements in the standard taxonomies are never identified as being a beginning or ending period amount. The same element can represent both a beginning and ending balance, because the underlying financial concept is the same. The differentiating factor is the point in time, which is identified in the instance document and not the taxonomy. For example, in the

property, plant and equipment movements, the “Property, plant and equipment” element is used twice, with facts in an instance document indicating the date of the reported amount.

Corresponding rules:

EFM 6.6.23

2.2.14. If an element used in numeric facts representing amounts in one or more periods has a definition, then the scope of that definition must include the amounts reported for that line item in the financial statements.

An element “has a definition” if there is text in the link:label element located as follows:

- label linkbases recognised in the disclosure system contain link:label elements with an xml:lang set to default language attribute and,
- an xlink:role attribute equal to ‘<http://www.xbrl.org/2003/role/documentation>’.

If a link:labelArc with an xlink:to attribute matching the xlink:label attribute of such a link:label element, and an xlink:from attribute that matches the xlink:label attribute of a link:loc whose xlink:href attribute is an element, then the text of link:label is the definition of that element. The definition is an element’s most important attribute and must be consistent with the financial statement line item. An element should be interpreted by the substantive meaning provided in its definition. Definitions cannot be changed. As important as they are, all definitions have limitations, so filers should not base their choice of an element simply on minor, immaterial differentials in definitions. Determining whether a definition is consistent with the financial statement line item requires judgment, and other attributes of the element must be considered.

Corresponding rules:

EFM 6.6.24

2.2.15. An element must not be used in numeric facts representing amounts of a line item in different periods if it has a definition that explicitly excludes one or more of the amounts in the financial statements.

For example, the definition for element “Other restructuring costs” may state that it “excludes costs associated with the retirement of a long-lived asset and severance costs associated with established compensation plans.”

Corresponding rules:

EFM 6.6.25

2.2.16. When there is a choice among different elements that have definitions consistent with a set of facts in one or more periods, use the element with the narrowest definition.

For example, while in principle, eleven possible word combinations may be derived from “depreciation”, “amortization”, “impairment”, and “depletion”, all eleven might not be included as distinct elements in a standard taxonomy namespace. If the line item being reported consists only of depreciation, then use an element such as Depreciation; do not use any of the alternative elements whose definition also includes impairment or depletion.

Corresponding rules:

EFM 6.6.26

2.2.17. If there is a choice among different elements whose type attribute is consistent with a set of facts in one or more periods, use the element with the most specific type attribute.

For example, a note to the financial statements contains the sentence “The assumed discount rate is 2%” or, equivalently, “The assumed discount rate is two percent”. There is a numeric element declared in a standard taxonomy for the value of assumed discount rates, and another element for “assumptions”. Use the numeric assumed discount rate. Another example is if a fact is a dollar amount and there are some potential elements that are monetary and others that are strings or text blocks, the monetary elements must be used. Similarly, “per share” dollar amounts must be tagged with “per share” elements.

Corresponding rules:

EFM 6.6.27

2.2.18. When there is a choice among different elements having distinct link:reference elements in a standard taxonomy, use the element with the most specific reference.

Reference linkbases containing link:reference elements do not have to be in the DTS of the instance as submitted but they should be used during the preparation of the instance. For example, an element with a link:reference to a specific paragraph with a specific disclosure requirement in a IAS or IFRS is likely to be a better choice than an element not referencing such disclosure requirement. Determining whether references supporting the definition and are consistent with the financial fact requires judgment, and other attributes of the element must be considered.

Corresponding rules:

EFM 6.6.28

2.2.19. When choosing the most appropriate element for facts in one or more periods, the element’s xbrli:periodType attribute takes precedence over the type attribute, which takes precedence over the element’s documentation string, which in turn takes precedence over the label string, which in turn takes precedence over link:reference elements.

The calculation, definition, and presentation linkbases published along with standard taxonomies schemas are extremely useful ways to communicate how elements are related to each other. Filers use the linkbases that organize the common set of tags appropriate to their business as a starting point. However, these linkbases are to be used as templates by filers to build their own linkbases to communicate their own intended relationships. Also, any element in a standard taxonomy schema may be used in an instance that has the schema in its DTS independently of which “specific” linkbases it might have appeared in. Therefore it is the elements standing by themselves with their definitions, references and attributes that are definitive. The name attribute of an element is a mnemonic, not a definition; do not use the name attribute of an element as a definitive indicator of its meaning.

Corresponding rules:

EFM 6.6.29

EDINET Guideline for Extension Taxonomy P.46 (Chapter 6)

2.2.20. Invert the sign of a numeric fact whose element has an xbrli:balance value that is inconsistent with the reporting concept being reported.

Often, this means entering a negative value into the instance, irrespective of whether that negative value will subsequently be rendered without brackets as a result of applying a negating label. The value of xbrli:balance (debit or credit) is assigned to monetary elements in a standard taxonomy namespace from the perspective of the income statement and balance sheet. This perspective may be inconsistent with the presentation of the

element in the financial statements. For example, a financial concept in the cash flow statement may be represented by an element that was assigned an xbrli:balance based on the income statement. As a result, the xbrli:balance may be different from filers' expectations. A different xbrli:balance value for an element must not influence the filer in deciding whether the element is appropriate for the fact representing a financial concept, and filers should not create a new element if an element in a standard taxonomy namespace is consistent with the financial concept reported in all respects except xbrli:balance. Use an element even if its xbrli:balance is not the balance type expected.

Corresponding rules:

EFM 6.6.30

2.2.21. The content of a numeric fact never has a scale factor.

Examples:

- The value "twenty thousand" may appear in a numeric fact as any legal decimal representation of 20,000, such as 20000, 20000.0, or 020000. It must not appear as "20".
- The value "20%" may appear in a numeric fact as any legal decimal representation of .2, such as 0.2, 0.20, 000.2000.
- The value "20%" must not appear in a numeric fact as "20", "20/100", "20%" or any variation of the integer "20".

Corresponding rules:

EFM 6.6.31

2.2.22. The value of the decimals attribute of a fact must correspond to the accuracy of the corresponding amount as reported in the financial statements.

The decimals attribute influences how numbers are interpreted in XBRL and any value for the decimals attribute other than the value INF implies rounding or truncation. Use the following table to select the correct value of the decimals attribute for a fact so that it corresponds to the value as presented (most often rounded) on the financial statements.

Accuracy of the amount as shown in financial statements	Value of decimals attribute
Exact monetary, percentage, basis point or any other amount	INF
Rounded to billions	-9
Rounded to millions	-6
Rounded to thousands	-3
Rounded to units	0
Rounded to cents	2
Rounded to a whole percentage	2
Rounded to basis points	4

Examples:

Fact	Value	Value of decimals attribute
A federal tax rate of (exactly) 46%	.46	INF
An management fee of (exactly) 10 basis points	.001	INF
A (rounded) profit margin of 9.3%	.093	3
A (rounded) change in NAV of 12 basis points	.0012	4
A (rounded) inventory "in thousands" of 100	100000	-3
A (rounded) inventory "in thousands" of 100.2	100200	-2

The decimals attribute is not a scale factor. The decimals attribute is not a formatting code; it does not indicate that the digits in the instance must subsequently be presented to a user in any particular way.

Corresponding rules:

EFM 6.6.32

EDINET Guideline for Instance Creation P.23 (Chapter 8-1)

2.2.23. Do not resolve calculation inconsistencies by inserting digits that do not appear in the financial statements.

For example, rounding can result in calculation inconsistencies. In this example, XBRL validation software will identify a calculation inconsistency:

Earnings per share, Basic	1.30
Income (Loss) from Discontinued Operations, Net of Tax, Per Basic Share	.01
Income (Loss) from Continuing Operations, Per Basic Share	1.28

The decimals attribute must be equal to "2" for all three amounts, because these digits as reported in the financial statement have been rounded. Adjusting the decimals attribute of "2" on the facts to "1" or "3" will not resolve the inconsistency. Adding hidden digits, such as changing .01 to .014 and 1.28 to 1.284, and setting the decimals attribute to "3" may resolve the calculation inconsistency, but the extra digits were not reported in the financial statements.

Corresponding rules:

EFM 6.6.33

2.2.24. Do not define or use units that imply a scale factor on a currency.

To express amounts in US Dollars, use only xbrli:unit with one xbrli:measure element whose content is the QName iso4217:USD. Do not define units such as "thousands of USD", "millions of GBP", or "pence".

Corresponding rules:

EFM 6.6.34

2.2.25. Each unit must appear with only one implicit scale factor per instance.

XBRL 2.1 syntax requires these units for facts of the following types:

element type attribute	typical id attribute	xbrli:numerator	xbrli:denominator
xbrli:monetaryItemType	usd	iso4217:USD (currency code)	
xbrli:pureItemType num:percentItemType	ratio	xbrli:pure	
xbrli:sharesItemType	shares	xbrli:shares	
num:perShareItemType	usdPerShr	iso4217:USD (currency code)	xbrli:shares

The following numeric element types have no predefined restrictions on their units, but filers must use units and implicit scale factors consistently throughout submitted instances.

element type attribute	Abbreviation	Meaning
us-types:boelItemType	Boe	Barrel Oil Equivalent (Energy)
	MBoe	Thousand Barrels of Oil Equivalent
	MBoe	Million Barrels of Oil Equivalent
us-types:volumelItemType	cf	Cubic Feet of Natural Gas
	Mcf	Thousand Cubic Feet of Natural Gas
	MMcf	Million Cubic Feet of Natural Gas
	Fbbls	Barrels of Oil at 60 degrees F

	MBbls MMbls	Thousands of Barrels of Oil Millions of Barrels of Oil
--	----------------	---

For example, these facts have a unitRef attribute of different scales in a single instance:

```
<abc:ProvedDevelopedReservesVolume ... unitRef="MMbbl">3880</...>
```

```
<abc:ProvedDevelopedReservesVolume ... unitRef="Mbbl">2200000</...>
```

```
<abc:ProvedUndevelopedReservesVolume ... unitRef="Fbbls">42000000</...>
```

Define and use other xbrli:unit elements (usually needed for performance metrics such as “stores” or “customers”) consistently within an instance and in subsequent filings.

Corresponding rules:

EFM 6.6.35

EDINET Guideline for Instance Creation P.52 (Chapter 11-3)

2.2.26. Text that is shown in the financial statements at the bottom of a page or at the bottom of a table preceded by a superscript must appear in the instance as the text of a link:footnote element.

The content of link:footnote should not contain the superscript symbol or number originally appearing in the financial statements. Notes to the financial statements do not appear in a link:footnote, only their superscripted texts appearing at the bottom of pages or tables.

Corresponding rules:

EFM 6.6.39

2.2.27. Distinct texts that are shown in the financial statements at the bottom of a page or at the bottom of a table preceded by distinct superscripts must appear in the instance as the text of distinct link:footnote elements.

For example, the superscript symbol or number originally appearing in the financial statements is irrelevant. This rule does not require that it appear in the instance.

Corresponding rules:

EFM 6.6.40

2.2.28. Instant context period value must not equal to any duration contexts start date value.

Corresponding rules:

EDINET Report Instance Creation Guidelines 6-4-1

2.2.29. An instance must contain a fact for each amount disclosed in text that is shown in the financial statements at the bottom of a page or at the bottom of a table preceded by a superscript.

Example:

¹ Includes income and (expense) resulting from investments accounted for using the equity method of EUR 38 and EUR (26) for the fiscal years ended December 31, 2008 and 2007, respectively.

The instance contains two facts:

```
<ifrs:ShareOfProfitLossOfAssociatesAndJointVenturesAccountedForUsingEquityMethod
```

```
unitRef="EUR" decimals="-6"
```

```
contextRef="FY08e">38000000</ifrs:ShareOfProfitLossOfAssociatesAndJointVenturesAccountedForUsingEquityMethod>
```

```
<ifrs:ShareOfProfitLossOfAssociatesAndJointVenturesAccountedForUsingEquityMethod
unitRef="EUR" decimals="-6" contextRef="FY07e">-
26000000</ifrs:ShareOfProfitLossOfAssociatesAndJointVenturesAccountedForUsingEquityMethod>
```

2.3. Semantics of Filer Extension Schemas

This section describes the processing and the semantics of schemas. A schema contains management assertions, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.3.1. A schema that changes any `xsd:element` or type declarations or changes any arcs in its DTS from an earlier version of itself in such a way as to invalidate earlier instances must use only the `{versionDate}` portion of its `targetNamespace` attribute to identify the new version.

From filing to filing, a company extension's schema and linkbases almost always change, for example, to accommodate changes in the parenthetical portions of element labels. Change the `{versionDate}` portion of the schema's `targetNamespace` with each filing to ensure that filings validate independently and maintain their correspondence to financial statements. For example, a 2nd quarter filing contains a schema with a `targetNamespace` attribute `http://abcinc.com/2009-12-31`. The schema for the 3rd quarter Form 10-Q changes one element from the `xbli:balance` attribute of 'credit' to 'debit'. Its `targetNamespace` attribute changes to `http://abcinc.com/2010-03-31`.

Corresponding rules:

EFM 6.8.1

2.3.2. A schema must contain at least one `link:linkbaseRef` element for each of the linkbases that are required for the filing to be valid.

The table below collects some, though not all, of the conditions under which linkbases would be required as a consequence of other rules.

Condition	Linkbases Required	Reason
The line item label in the published taxonomy is not the same as that in the financial statements	Label	To provide a label for the line item.
Instance contains financial statements	Presentation and calculation	To ensure correct ordering and mathematical relationships of line items
Statement reports on more than one component of equity	Definition	To distinguish context elements that refer to facts about different components of equity
Notes to financial statements contain reportable segments tagged at level 3 or above	Definition	To distinguish context elements that refer to facts about different reportable segments in distinct tables
Instance uses facts with elements defined in an attached schema	Label and presentation	To ensure that the facts are organised appropriately for users to understand them
Schema is a copy of a schema published for early adopters of new reporting rules	Reference	To ensure that users can identify the supporting standards for an element

These conditions are such that in the majority of cases where the financial statements represent the whole year, the quarter or other financial statements, the schema will contain link:linkbaseRef elements for calculation, definition, label and presentation linkbases, while the appearance of a link:linkbaseRef element for a reference linkbase is rare.

Corresponding rules:

EFM 6.8.2

2.3.3. Do not define link:arcroleType (or link:roleType for a resource-type element) that means the same as arc roles or resource roles that are already defined in the XBRL 2.1 specification or in a standard taxonomy or in the schema recognised in the disclosure system.

The table below shows declarations that are technically possible, although any use of the defined role or arc role would be subject to all other rule restrictions.

type attribute	QName in link:usedOn	Declared by
extended	link:labelLink	link:roleType
extended	link:referenceLink	link:roleType
resource	link:label	link:roleType
resource	link:footnote	link:roleType
resource	link:reference	link:roleType
arc	link:calculationArc	link:arcroleType
arc	link:definitionArc	link:arcroleType
arc	link:labelArc	link:arcroleType
arc	link:presentationArc	link:arcroleType
arc	link:referenceArc	link:arcroleType

Corresponding rules:

EFM 6.8.3

2.3.4. Wherever possible, filers should assign a standard and other labels for an element defined in a standard taxonomy schema in preference to declaring a new element in a company schema.

A standard label is a link:label element with an xlink:role attribute equal to 'http://www.xbrl.org/2003/role/label'.

For example, a standard taxonomy may include the financial statement element "Gross profit." It does not include "Gross margin," because this is defined the same as "Gross profit": both are used to mean "excess of revenues over the cost of sales." A filer using the label "Gross margin" in its income statement should use the element corresponding to the financial statement element "Gross profit," and then change the label for this element on the standard list to "Gross margin."

Defining a new, filer-specific element has many consequences, not only for all users of the instance but also for the filer's ability to reuse the schema and linkbases in subsequent reporting periods and reduce their future reporting effort. The scope of those consequences depends on the type of element, and must be done under specific circumstances discussed below with respect to each type of element.

Corresponding rules:

EFM 6.8.4

2.3.5. The name attribute of an `xsd:element` should consist of capitalized words corresponding to the standard label, a convention called LC3.

LC3 means Label Camel Case Concatenation (LC3):

1. The name attribute corresponds to the default standard label for the element. A label should be a natural language expression that is meaningful to users of the schema.
2. If the name attribute is originally based on a label and in a subsequent version of the schema, the label changes, the name attribute must not be changed merely to maintain agreement.
3. The first character of a name attribute must not be underscore.
4. The first character of the a name attribute must be capitalized.
5. The following characters are not allowed in a name attribute: () * + [] ? \ / ^ { } | @ # % ^ = ~ ` " ' ; : , < > & \$ £ €
6. The name attribute may not exceed 200 characters.
7. Omit articles (the, a, an) but not other connectives and prepositions (and, or, but, for...).
8. Words in a label from which an element name is derived may be replaced by any of the standard abbreviations found in the `xsd:element` name attribute values in a standard taxonomy schema.
9. Do not use digits in the name attribute unless the element is being declared specifically because it must identify a regulation known by a number (“12b-1 Fees”, “FAS 132”). Always begin the name with a letter (e.g., “Rule12b1Fees”) and conform to LC3 (e.g., “Fas132”).
10. Convert acronyms to Proper case (e.g., FAS becomes Fas, FHLC becomes Fhlc). Treat digits in an acronym as word separators (e.g., WIN2K becomes Win2K).

Corresponding rules:

EFM 6.8.5

EDINET *Guideline for Extension Taxonomy P.51 (Chapter 7-1)*

2.3.6. Do not include filer-specific or period-specific information in an `xsd:element` name attribute.

For example, “AcquisitionOfDEFCo” or “4thQuarterAdjustment”.

Corresponding rules:

EFM 6.8.6

2.3.7. An `xsd:element` name attribute should be consistent with its standard label and follow a style similar style to the convention used in standard taxonomies.

Most `xsd:element` declarations in standard taxonomy schemas are assigned a default standard label from which the name attribute can be derived by capitalizing the first letter of each word in the label and removing from it any characters that cannot appear in any XML element name attribute. Follow this convention within the limitations of other rules on element names and labels.

For example, the table below shows some standard labels that appear in a company extension, and an appropriate element name.

Standard label in company linkbases	<code>xsd:element</code> name attribute
Trading account assets pledged as collateral	TradingAccountAssetsPledgedAsCollateral
Mortgage servicing rights	MortgageServicingRights
Mortgage-backed securities issued by private institutions [member]	MortgageBackedSecuritiesIssuedByPrivateInstitutionsMember
Exhibits financial statement schedules [abstract]	ExhibitsFinancialStatementSchedulesAbstract

Although the text of the label is not interpreted by software, it is nevertheless presented to end users, so that spelling and terminology should be consistent to improve clarity.

Corresponding rules:

EFM 6.8.7

2.3.8. Declare an xsd:element with an abstract attribute equal to "true" if an appropriate abstract element does not exist, and use the presentation linkbase to have facts rendered sequentially.

Corresponding rules:

EFM 6.8.8

2.3.9. Declare an xsd:element with a type attribute equal to "xbrli:monetaryItemType" if the standard taxonomy schema contains only monetary type elements that, in the judgment of the filer, are too broadly defined for a given line item.

For example, a financial statement may contain a line item that encompasses a significant fraction of a nearby line item. For example, financial statements contain these lines:

Accounts payable	7,324
Securities lending payable	1,274
Other liabilities, current	2,362

The standard taxonomy does not have an element whose definition or reference is sufficiently narrow enough to encompass "Securities lending payable" alone while leaving the other line items shown indistinguishable. Meeting the accounting disclosure requirements justifies defining an xsd:element with a name attribute SecuritiesLendingPayable.

For example, a financial statement may contain a line item that combines two elements defined in a standard taxonomy schema. For example, financial statements contain these lines:

Goodwill	9,845
Prepaid pension and postretirement benefits	8,731
Other assets, noncurrent	872

The standard taxonomy has separate elements PrepaidExpenseOtherNoncurrent and PrepaidPensionCosts, but the filer judges the former to be too narrow and the latter to be too broad for the line item. Meeting the accounting disclosure requirements justifies defining the xsd:element with a name attribute PrepaidPensionAndPostretirementBenefits.

Corresponding rules:

EFM 6.8.9

2.3.10. Do not declare different elements for different values of the same underlying line item.

For example, a line item that appears with different values (even in the same period) is still only a single xsd:element. For example, a cash flow statement may have a line item "Reclassification of proceeds from operations to investments" that appears in "Cash flow from operations" as (10) and under "Cash flow from investments" as 10; it is still the same fact and the same xsd:element. More generally, a line item such as "Net Income" is the same as the line item for "Net Loss", since such an xsd:element may appear in facts with different values, positive, negative, or zero in different periods.

Corresponding rules:

EFM 6.8.10

EDINET Guideline for Extension Taxonomy P46 (Chapter 6)

2.3.11. An xsd:element with a type attribute equal to "xbrli:monetaryItemType" must have an xbrli:balance attribute if it appears on a statement of financial position.

An xsd:element “appears on a statement of financial position” if the xsd:element is the target of a presentation relationship in a link:presentationLink with an xlink:role attribute with a link:description that contains phrases such as “balance” “financial position”. The xbrli:balance attribute values ‘credit’ and ‘debit’ serve to disambiguate the meaning of a positive (or negative) fact value in an instance. In combination with the xbrli:periodType attribute, a user can identify all monetary facts on the statement of financial position as assets, liabilities no matter what their name attribute.

Corresponding rules:

EFM 6.8.11

EDINET Guideline for Extension Taxonomy P53 (Chapter 7-5)

2.3.12. An xsd:element with a type attribute equal to "xbrli:monetaryItemType" has an xbrli:periodType attribute equal to "instant" if and only if it represents beginning and end of period balances, as distinct to balances defined over a period of time.

Otherwise, use an xbrli:periodType attribute equal to ‘duration’. Do not define separate elements to represent the beginning and ending balances. Facts in the instance have a contextRef attribute that contain the calendar date for the value. Therefore, the same fact represents the ending balance of a prior period and beginning balance of the next period.

Corresponding rules:

EFM 6.8.12

EDINET Guideline for Extension Taxonomy P53 (Chapter 7-6)

2.3.13. An xsd:element with a type attribute equal to "xbrli:monetaryItemType" that represents an adjustment must have a xbrli:periodType attribute equal to "duration".

By convention, a balance adjustment fact has a contextRef attribute that refers to the period prior to the end-of-period balance that it applies to.

Corresponding rules:

EFM 6.8.13

EDINET Guideline for Extension Taxonomy P53 (Chapter 7-6)

2.3.14. A ratio of values that would have the same unitRef attribute must be declared as an xsd:element with a type attribute equal to "num:percentItemType" even though its value is not scaled by 100.

Only if both the numerator and denominator would have an xbrli:periodType attribute of ‘instant’ could this element’s xbrli:periodType attribute also be ‘instant’. Although a concept such as “Change in revenues” is conventionally rendered scaled by 100 and followed by the “%” symbol, a fact of this xsd:element in an instance will have a unitRef attribute of xbrli:pure and a value such as .20 or -.03. To reduce ambiguity in the meaning of such a concept, use a name attribute that expresses the true ratio, using the word ‘Over’. For example, an element “Change in Revenues from the period one year earlier, over revenues from the period one year earlier” is awkwardly named, but explicit and applicable to both quarterly and annual reports. As explained below, the label linkbase can contain a more compact “terse” label and the presentation linkbase can indicate where the terse label should be used.

Corresponding rules:

EFM 6.8.14

2.3.15. A ratio of values for which its facts would have different values for the unitRef attribute and a denominator other than xbrli:shares must be declared as an xsd:element with a type attribute equal to xbrli:pureItemType.

For example, an “Exchange rate” concept is a “pure” number, being a ratio of two monetary values and the unitRef attribute of its underlying values usually having different currencies. Depending on whether the exchange rate is reported as a period average or point-in-time value, the xsd:element xbrli:periodType attribute may be ‘duration’ or ‘instant’. Likewise, use xbrli:pureItemType for a “Revenue per passenger mile” concept, a ratio of a monetary value to the product of passengers and mile (currency/(person*mile), where currency could be US or Canadian dollars).

Corresponding rules:

EFM 6.8.15

2.3.16. If facts in an instance are dates, but no xsd:element in a standard taxonomy with a type attribute equal to "xbrli:dateItemType" is appropriate, declare an xsd:element with a type attribute equal to "xbrli:dateItemType".

The xbrli:periodType attribute must be ‘duration’.

For example, financial statements show a table of contracts with values and maturity dates. There is no appropriate element in any standard taxonomy schema for the date, so declare an element ‘ContractMaturityDate’.

Corresponding rules:

EFM 6.8.16

2.3.17. If facts in an instance are a mixture of text, date, numbers or other values, and no xsd:element in a standard taxonomy with a type attribute equal to "xbrli:stringItemType" is appropriate, then declare an xsd:element with a type attribute equal to "xbrli:stringItemType".

The xbrli:periodType attribute must be ‘duration’.

For example, financial statements show a table of contracts with a short text description of the project and its terms. Declare an element ‘ProjectTermsText’.

Corresponding rules:

EFM 6.8.17

2.3.18. If no standard taxonomy schema contains domain member elements specific enough to distinguish between facts needing distinct values of "xbrldi:explicitMember", then declare an xsd:element with a type attribute equal to "nonnum:domainItemType".

The standard taxonomy schemas define domain items and members for every axis. Just as a domain member element must not be used in a fact, a line item should not be used as a domain member and a domain member should not be used as a line item.

Corresponding rules:

EFM 6.8.18

2.3.19. Do not declare an xsd:element with a type attribute equal to "nonnum:domainItemType" as an explicit "total" domain member for existing axes.

Elements with a name attribute ending in domain, as the default member of an axis, already serve as a total.

Corresponding rules:

EFM 6.8.19

2.3.20. For value and narrative facts, declare an xsd:element with a substitutionGroup attribute equal to "xbrldt:dimensionItem" if a standard taxonomy schema contains no axis element for a reporting axis appearing in the financial statements.

A narrative fact is a non-numeric fact with a base type derived from 'xsd:string'. If the axes of an existing table are insufficient to capture a complex disclosure, a filer may need to add an axis element. For example, suppose there is a table for "Long-lived assets held for sale by asset type" that has an axis for the asset type. If a filer needs to disaggregate an asset type (property, for example) according to its degree of distress, declare an xsd:element name attribute such as 'DistressDegreeAxis'.

Corresponding rules:

EFM 6.8.20

2.3.21. Declare an xsd:element with a substitutionGroup attribute equal to "xbrldt:hypercubeItem" if a standard taxonomy schema contains no table elements appropriate to the reporting axis needed.

Only create a new table to meet a reporting goal that cannot be met by modifying an existing table's relationships.

Corresponding rules:

EFM 6.8.21

2.3.22. If an xsd:element is declared with a substitutionGroup attribute equal to "xbrldt:hypercubeItem" then an xsd:element with a type attribute equal to "nonnum:escapedItemType" must also be declared, to be used for the fact that will contain the entire text of that table.

Corresponding rules:

EFM 6.8.22

2.4. Semantics of Label Linkbases

This section describes the processing and the semantics of filings. A label linkbase contains management assertions, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.4.1. Assign a label of an element used in an instance the same text as the corresponding line item in the financial statements.

An element is defined to be "used in an instance" if the element is the element of any fact, or whose QName is a dimension attribute or content of xbrldi:explicitMember. A label is "assigned to an element" by an effective relationship with an xlink:arcrole attribute equal to 'http://www.xbrl.org/2003/role/concept-label' from the element declaration to the link:label.

Examples:

The following line item appears in an income statement:

(in thousands \$)	2007	2006
Gross margin	15,212	10,195

The appropriate element is `ifrs:GrossProfit` and it has the label “Gross profit”. Both “gross profit” and “gross margin” mean “excess of revenues over the cost of sales.”

The filer assigns the label “Gross margin” and may choose to either exclude from the DTS the linkbase containing all standard labels, or to override the existing label using an equivalent element-label arc with a use attribute equal to ‘prohibit’, and an elementlabel arc with a use attribute equal to ‘optional’ and a value of the priority attribute greater than the existing element-label arc priority attribute.

Usually, the standard label of the element will be displayed to the user. If the element appears in different places of the financial statements with different labels, then use the `preferredLabel` attribute on a presentation relationship to distinguish different labels. For example, an element may appear as “Gross profit” in a note to financial statements but “Gross profit (loss)” in the statements.

The following line item appears in a balance sheet and the appropriate element is `ifrs:TradeAndOtherCurrentReceivables`.

(in thousands \$)	2007	2006
Receivables, less allowances of \$1,260 and \$1,150	31,659	31,601

The standard label of the element assigned in a standard taxonomy linkbase is “Trade and other current receivables”. If the linkbase is included in the instance DTS, that label must be changed. The filer should assign a label of “Receivables, less allowances of \$1,260 and \$1,150”.

Corresponding rules:

EFM 6.11.1

2.4.2. Assign a label of a parenthetical element the same text as the corresponding text in the financial statements.

For example, continuing the example from the previous rule, the treatment of the parenthetical will be approximately as if the financial statements had been arranged as follows:

(in thousands \$)	2007	2006
Receivables	31,659	31,601
(Less allowances)	(1,260)	(1,150)

The filer assigns element `abc:AllowanceForDoubtfulAccountsReceivable` a label “(Less allowances).” The appropriate `xlink:role` attribute for this label is ‘<http://www.xbrl.org/2009/role/negatedLabel>’ showing the value as negative.

Corresponding rules:

EFM 6.11.2

2.4.3. An `xsd:element` should be assigned a total label if the element will be presented with different labels depending on whether it is shown as a line item or as a summation of other line items.

An element is assigned a total start label if and only if it is assigned a label with an `xlink:role` attribute equal to ‘<http://www.xbrl.org/2003/label/totalLabel>’. For example, a fact may be shown with the label “Trade and other current receivables” on a balance sheet, but in a note detailing its composition, the same fact may be

shown as “Total trade and other current receivables”. The preferredLabel of the presentation relationship must also be set to the total label.

Corresponding rules:

EFM 6.11.4

EDINET Guideline for Extension Taxonomy P54 (Chapter 8)

2.4.4. An xsd:element with a type attribute equal to "xbrli:monetaryItemType" that does not have an xbrli:balance attribute must have a definition that disambiguates its sign.

When a monetary item could take on a positive or negative value in different periods, and there is potential for confusion because it is not required to have an xbrli:balanceType attribute. The filer must therefore either assign an appropriate xbrli:balanceType attribute or assign a label with an xlink:role attribute equal to ‘http://www.xbrl.org/2003/role/documentation’ containing text that makes the meaning of a positive (or negative) value explicit.

For example, a filer defines an element called “Other loss adjustments, net” with a type attribute equal to ‘xbrli:monetaryItemType’ but does not provide an xbrli:balanceType attribute. The text of the documentation is “A positive adjustment value indicates a net increase in cumulative losses.”

Corresponding rules:

EFM 6.11.5

2.4.5. Assign a "negated" label from http://www.xbrl.org/lrr/role/negated-2009-12-16.xsd to an xsd:element with an xbrli:balanceType attribute that is inconsistent with the presentation in the financial statements.

A numeric fact value will occasionally have the reverse sign of the figure as presented in financial statements. A link:label has four possible xlink:role attributes that will ensure the number will be displayed with a reversed sign, called “negating” labels. For example, one of the most common cases for a negating label is the monetary element ifrs:TreasuryShares, which has xbrli:balanceType of ‘debit’. Its negating labels could be assigned as shown in this table:

xlink:role attribute	link:label
http://www.xbrl.org/2003/role/label	Treasury shares
http://www.xbrl.org/2009/role/negatedLabel	(Less) treasury shares
http://www.xbrl.org/2009/role/negatedPeriodEndLabel	Treasury shares at end of period
http://www.xbrl.org/2009/role/negatedPeriodStartLabel	Treasury shares at beginning of period
http://www.xbrl.org/2009/role/negatedTotalLabel	(Less) total treasury shares

Corresponding rules:

EFM 6.11.6

2.4.6. If an xsd:element with an xbrli:periodType attribute equal to "instant" could be presented as either a beginning or end of period value in a roll forward, assign period start labels or period end labels.

An element is assigned a period start label if and only if it is assigned a label with an xlink:role attribute equal to ‘http://www.xbrl.org/2003/label/periodStart’. An element is assigned a period end label if and only if it is assigned a label with an xlink:role attribute equal to ‘http://www.xbrl.org/2003/label/periodEnd’. This rule often applies to cash balances as presented in a statement of cash flows and other balances shown in roll forwards.

xlink:role attribute	link:label
http://www.xbrl.org/2003/role/label	Cash and cash equivalents
http://www.xbrl.org/2003/role/periodEnd	Cash and cash equivalents at end of period
http://www.xbrl.org/2003/role/periodStart	Cash and cash equivalents at beginning of period

Corresponding rules:

EFM 6.11.7

EDINET Guideline for Extension Taxonomy P54 (Chapter 8)

2.4.7. Assign an xsd:element different label roles if the same element will appear with different labels depending on the presentation arcs that have it as a target.

An element is assigned a terse label if and only if it is assigned a label with an xlink:role attribute equal to 'http://www.xbrl.org/2003/label/terse'. An element is assigned a verbose label if and only if it is assigned a label with an xlink:role attribute equal to 'http://www.xbrl.org/2003/label/verbose'. The terms 'terse' and 'verbose' are only suggestive. For example, a fact whose element has the standard label 'Earnings per share, diluted' in a standard taxonomy might appear in an income statement with the label "Diluted, per share" and in an Equity note with the label "Per share, diluted"; as long as the two labels have different values of the xlink:role attribute, either could be considered terse, verbose, or even as the standard label.

Corresponding rules:

EFM 6.11.8

EDINET Guideline for Extension Taxonomy P54 (Chapter 8)

2.4.8. A label linkbase of a standard taxonomy should not be included in the DTS of an instance.

An exception to this general rule is when the label linkbase is required by a schema that defines elements or types of a standard taxonomy.

Corresponding rules:

EFM 6.11.9

2.5. Semantics of Presentation Linkbases

This section describes the processing and the semantics of presentation linkbases. The contents of a presentation linkbase order and arrange the line items, and because order is sometimes significant, that implies management assertions. Following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.5.1. A presentation linkbase of a standard taxonomy should not be included in the DTS of an instance.

An exception to this general rule is when the presentation linkbase is required by a schema that defines elements or types of a standard taxonomy. Note that in such a case some of the relationships may have priority attribute values that do not permit overriding.

Corresponding rules:

EFM 6.13.1

EDINET Guideline for Extension Taxonomy P58 (Chapter 9-1)

2.5.2. The element of every fact in an instance must participate in an effective presentation arc in a base set whose xlink:role attribute corresponds to the locations where the fact appears in the financial statements.

This rule requires that each link:presentationArc be assigned an xlink:role attribute value placing facts into the appropriate part of the financial statement at the appropriate level of detail.

Corresponding rules:

EFM 6.13.2

EDINET Guideline for Extension Taxonomy P58 (Chapter 9-3)

2.5.3. Organize the effective presentation arcs in a base set using the ordering and indentation of the facts in the financial statements.

Order a set of line items to appear as they do in the financial statements by using an element as their heading that will be the source of presentation relationships that have the line items as their target. If that heading has no facts associated with it, that element will be an element with an abstract attribute equal to 'true'. In other words, to achieve effects such as ordering and nesting, use presentation relationships, and to insert headings, use abstract elements. A total element often appears at the end of the list under the heading. Normally, each base set will have a "root" element that is an abstract element, and that abstract element will be used to organise a heading that precedes all the facts in the base set.

Corresponding rules:

EFM 6.13.3

2.5.4. All elements of facts corresponding to parentheticals in the financial statements must be the targets only of effective presentation arcs in one base set and all having the same source abstract element.

Filers must declare a link:roleType to contain the parentheticals in each statement and use an abstract element to serve as a heading for every parenthetical in that statement. Normally, this would be the same abstract element at the root of the base set representing the corresponding statement. If element ifrs:Trade and other current receivables appears in the statement of financial position, so this rule would be satisfied with a presentation relationship from the element ifrs:StatementOfFinancialPositionAbstract to the target abc:AllowanceForDoubtfulAccountsReceivable in a base set separate from the statement of financial position itself.

Corresponding rules:

EFM 6.13.4

2.6. Semantics of Calculation Linkbases

This section describes the processing and the semantics of calculation linkbases. The content of a calculation linkbase contains management assertions, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.6.1. A calculation linkbase of a standard taxonomy should not be included in the DTS of an instance.

An exception to this general rule is when the linkbase is required by a schema that defines elements or types of a standard taxonomy. Note that in such a case some of the relationships may have priority attribute values that do not permit overriding.

Corresponding rules:

EFM 6.15.1

2.6.2.If the financial statements shows two or more line items along with their net or total during or at the end of the required context period, and the instance contains corresponding numeric facts, then the DTS of the instance must have an effective calculation arc from the total element to each of the contributing line items.

A calculation relationship is a link:calculationArc with an xlink:arcrole attribute equal to 'http://www.xbrl.org/2003/role/summation-item'.

Examples:

- A company's cash flow from investments for the most recent quarter is shown as the sum of two lines: "Payments for plant and equipment", plus "Payments for marketable securities". Two calculation relationships are required.
- An income statement shows the line items "Revenues", "Cost of goods sold" and "Gross margin" as the net of the two values during the current quarter. Two calculation relationships are required. In this case, the relationship subtracting "Cost of goods sold" will have a weight attribute of -1.
- A statement of financial position shows assets as the sum of current and non-current assets, as of the date falling at the end of the period of the required context. Two relationships are required.
- An income statement shows only earnings per share and diluted earnings per share, but no reconciling per-share amount. Calculation relationships are not required.
- An income statement shows earnings per share before and after an adjustment for change in accounting principles, along with the adjusting amount. Two calculation relationships are required, from the net earnings per share, to its two contributing amounts.
- A statement of financial position shows "Current receivables" with a parenthetical value for "Allowances". Only two values are shown, so no calculation relationship is required. In general, parentheticals do not, by themselves, require calculation relationships.
- A footnote for ABC contains a table in which the Revenue of its separately reporting subsidiaries DEF, GHI and JKL are totalled. But, each of the four facts has a different contextRef attribute. Therefore, this does not require any calculation relationships.
- There is no separate, independent requirement that every filer-specific element be included in calculations. It is, however, one of the consequences of this rule that a filer-specific monetary or other numeric item is often defined in such a way that it must participate in calculation relationships anyway.

Corresponding rules:

EFM 6.15.2

2.6.3. Notes to financial statements that contain alternative line items in the financial statements that separately sum to the same total amount must result in calculation arcs in distinct base sets.

Calculation inconsistencies are tested separately in each base set. For example, a tax liability is shown in a tax note to financial statement as the sum of current and deferred tax liabilities, and elsewhere in the same note as the sum of domestic and foreign tax liabilities. There are two base sets, each containing two calculation relationships.

Corresponding rules:

EFM 6.15.3

2.6.4.A fact in an instance whose element is the source of an effective calculation arc in the instance DTS should not have the same calculation arc target in more than one base set.

An xsd:element should be the source of only one calculation relationship for any one target, without regard for base set. Note that this rule refers to the calculation relationship, not the element; an element can occur in any number of face financial statements or footnotes. Legitimate exceptions to this rule occur when an element is shown in different parts of the financial statement as a sum of different, but overlapping, sets of other elements.

Examples:

- The statement of financial position contains amounts pre-tax income, tax, and post-tax income. There are two line items and their net; therefore two calculation relationships are required in the base set for the balance sheet. In the tax note to financial statements there is another occurrence of pre-tax income, tax, and post-tax income. The tax note to financial statements does not need two calculation relationships, because the same relationship already exist on the statement of financial position.
- A statement of financial position shows “Current receivables” with a parenthetical value for “Allowances”. Only two values are shown, so no calculation relationship is required. A note to financial statements also includes an analysis of (the same) “Current receivables” including, among other details, amounts for “Gross” and “Allowances”. The footnote has those two line items and their net and therefore a need for two calculation relationships. Whether any of these facts also appear elsewhere is relevant only if it would result in duplicated relationships.

Corresponding rules:

EFM 6.15.4

2.7. Semantics of Definition Linkbases

This section describes the semantics of definition linkbases. The content of a definition linkbase contains management assertions, and following the semantic rules in this section helps the filer to communicate those assertions as they were intended.

2.7.1.A definition linkbase of a standard taxonomy should not be included in the DTS of an instance.

An exception to this general rule is when the linkbase is required by a schema of a standard taxonomy. Note that in such a case some of the relationships may have priority attribute values that do not permit overriding.

Corresponding rules:

EFM 6.17.1

2.8. Semantics of Reference Linkbases

This section describes the processing and the semantics of reference linkbases. Note: Although the Reference Linkbase file is a valid attachment type, at the moment it is not used.

2.8.1.A reference linkbase of a standard taxonomy should not be included in the DTS of an instance.

An exception to this general rule is when the linkbase is required by a schema that defines elements or types of a standard taxonomy. Note that in such a case some of the relationships may have priority attribute values that do not permit overriding.

Corresponding rules:

EFM 6.19.1

3. Document and Entity Information (DEI)

This section describes the document and entity information provided in the filing. The disclosure system usually defines a separate DEI standard taxonomy (alternatively some of the required DEI information can be provided using standard taxonomy elements).

3.1. DEI Syntax

3.1.1. Reserved

3.2. DEI Semantics

3.2.1. For each required DEI element, an instance must contain a fact with that element and a contextRef attribute referring to its required context.

The required DEI elements are:

Required DEI element	Definition	Base type	Example
Filer name	The exact name of the entity filing the report as specified in its charter, which is recognised in the disclosure system.	xsd:string	General Example Company
Filer identifier	A unique value to identify entities that have filed within the disclosure system.	xsd:string (or stricter)	For US SEC the CIK (0005551212)
Current fiscal year end date	End date of current fiscal year in the format --MM-DD.	xbri:MonthDayItemType	--12-31
Amendment flag	If the value is true, then the document as an amendment to previously-filed/accepted document.	xsd:boolean	true
Document period end date	The end date of the period reflected in the financial statements. The format of the date is CCYY-MM-DD.	xbri:dateItemType	2010-21-31
Document fiscal year focus	This is focus fiscal year of the document report in CCYY format. For a 2006 annual financial statements, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006.	xbri:YearItemType	2006

The Global Filing Manual does not prescribe local names for the elements representing required DEI elements. Disclosure system is expected to provide an official recognised DEI taxonomy.

Corresponding rules:

EFM 6.5.20, 6.5.21

3.2.2. The content of the fact provided for the DEI element “Filer identifier” in the required context must equal the content of the xbrli:identifier element in that context.

Corresponding rules:

EFM 6.5.23

Overview of the GFM Rules

No	Rule	Automated	Tailoring needed
1	Syntax		
1.1.	Filing Syntax		
1.1.1.	XBRL document names must be unique in the disclosure system	No	Yes
1.1.2.	The ampersand character must begin a valid XML predefined entity or numeric character reference.	Yes	No
1.1.3.	The URI content of the xlink:href attribute, the xsi:schemaLocation attribute and the schemaLocation attribute must be relative and contain no forward slashes, or a recognized external location of a standard taxonomy schema file, or a "#" followed by a shorthand xpointer.	Yes	No
1.1.4.	XBRL document names are case sensitive.	No	No
1.1.5.	Filers must use one of the taxonomies as specified in the disclosure system as their standard taxonomy.	Yes	Yes
1.1.6.	A filing must contain at least one filer extension schema.	Yes	No
1.1.7.	Attribute xml:base must not appear in any filing document.	Yes	No
1.1.8.	Encoding of all XBRL documents must be "UTF-8".	Yes	No
1.2.	Syntax of Instances		
1.2.1.	The scheme attribute of the xbrli:identifier element must follow the pattern recognised in the disclosure system.	Yes	Yes
1.2.2.	An xbrli:identifier element must have a number or identifier recognised in the disclosure system as its content.	Yes	Yes
1.2.3.	All xbrli:identifier elements in an instance must have identical content.	Yes	No
1.2.4.	One of xbrli:scenario or xbrli:segment element must not appear in any xbrli:context.	Yes	Yes
1.2.5.	If an xbrli:segment or xbrli:scenario element appears in a context, then its children must be one or more xbrldi:explicitMember elements.	Yes	No
1.2.6.	The content of xbrldi:explicitMember and xbrldi:measure is a QName.	Yes	No
1.2.7.	An instance must not contain duplicate xbrli:context elements.	Yes	No
1.2.8.	Every xbrli:context element must appear in at least one contextRef attribute in the same instance.	Yes	No
1.2.9.	If the financial statements represent a reporting period of one quarter or longer, then the same date must not appear as the content of both an xbrli:startDate and an xbrli:endDate in an instance.	Yes	No
1.2.10.	Element xbrli:xbrl must not have duplicate child xbrli:unit elements.	Yes	No
1.2.11.	An instance must not have more than one fact having the same element name, equal contextRef attributes, and if they are present, equal unitRef attributes and xml:lang attributes, respectively.	Yes	No
1.2.12.	The default value of the xml:lang attribute on non-numeric facts and on link:footnote is equal to default language.	Yes	Yes
1.2.13.	An instance having a fact with non-nil content and the xml:lang attribute of value different than default language must also contain a fact using the same element and all other attributes with an xml:lang attribute that represents the default language.	Yes	No
1.2.14.	If the un-escaped content of a fact with base type nonnum:escapedItemType contains the "<" character followed by a	Yes	No

	QName and whitespace, "/>" or ">", then the un-escaped content must contain only a sequence of text and XML nodes.		
1.2.15.	Facts of type escapedItemType whose un-escaped content contains markup must satisfy the content model of the BODY tag as defined in DTD or schema recognised in the disclosure system.	Yes	Yes
1.2.16.	The xbrli:xbrl element must not have any facts with the precision attribute.	Yes	No
1.2.17.	A fact is defined to have a footnote if it has an id attribute and a link:footnoteArc to a nonempty link:footnote in the same instance.	No	No
1.2.18.	An instance covering a reporting period must contain a required context that is an xbrli:context having xbrli:startDate equal to 00:00:00 on the first day of the reporting period and xbrli:endDate equal to 24:00:00 on its last day.	Yes	No
1.2.19.	A link:footnoteLink element must have no children other than link:loc, link:footnote, and link:footnoteArc.	Yes	No
1.2.20.	The xlink:role attribute of a link:footnote element must be defined in the XBRL Specification 2.1.	Yes	No
1.2.21.	The xlink:role attribute of a link:loc element must be empty, or defined in the XBRL Specification 2.1.	Yes	No
1.2.22.	The xlink:arcrole attribute of a link:footnoteArc element must be defined in the XBRL Specification 2.1 or be equal to fact-explanatoryFact as specified in http://www.xbrl.org/lrr/arcrole/factExplanatory-2009-12-16.xsd .	Yes	No
1.2.23.	A link:footnoteLink link:loc xlink:href attribute must start with the sharp sign "#".	Yes	No
1.2.24.	Every nonempty link:footnote element must be linked to at least one fact.	Yes	No
1.2.25.	Dates in period element of the context must comply with yyyy-mm-dd format. No time is allowed in the value for dates.	Yes	No
1.2.26.	Non significant digits for values for numeric facts MUST be equal to "0".	Yes	No
1.2.27.	An instance document must not contain unused units.	Yes	No
1.2.28.	Instance document must use the same namespace prefixes as used in the XBRL schemas or conformance suite instances together with the recommended default namespace prefix for all namespaces.	Yes	No
1.3.	Syntax of Filer Extension Schemas		
1.3.1.	The xsd:schema must not have an xsd:include element.	Yes	No
1.3.2.	If an xsd:import element has a namespace attribute equal to a standard taxonomy schema, then its schemaLocation attribute must be the standard taxonomy assigned to that namespace.	Yes	No
1.3.3.	The xsd:schema targetNamespace attribute must not equal the targetNamespace attribute of any standard taxonomy schema.	Yes	No
1.3.4.	The targetNamespace attribute must match http://{{authority}}/{{versionDate}}	Yes	No
1.3.5.	The targetNamespace attribute must be a valid URI with an {authority} that is either a domain name controlled by the publisher of the schema, a domain name controlled by the filer, or if neither exists, then a mnemonic name for the filer such as its ticker symbol.	No	No
1.3.6.	The targetNamespace attribute must be a valid URI with a {versionDate} in ISO 8601 format that identifies the release date of the schema.	No	No
1.3.7.	Element xsd:schema must bind a non-empty recommended namespace prefix for the targetNamespace attribute that does not contain the underscore character.	Yes	No

1.3.8.	Element xsd:schema must not contain any occurrences of "embedded" linkbases.	Yes	No
1.3.9.	The roleURI attribute of a link:roleType element must begin with the same {scheme} and {authority} as the targetNamespace attribute.	Yes	No
1.3.10.	A DTS must not contain more than one link:roleType element with equal values of the roleURI attribute.	Yes	No
1.3.11.	A link:roleType declaration with link:usedOn containing link:presentationLink, link:definitionLink or link:calculationLink must also have a link:usedOn for the other two.	Yes	No
1.3.12.	A link:roleType element must contain a link:definition child element whose content will communicate the title of the financial statement section and the level of facts in the instance that a presentation arc in the base set of that role would display.	No	No
1.3.13.	The link:definition must not have leading or trailing XML whitespace or newlines.	Yes	No
1.3.14.	A link:roleType element must contain a link:definition child element whose content will sort alphanumerically into the order that statements and notes to financial statements appear in the financial statements.	No	No
1.3.15.	The arcroleURI attribute of a link:arcroleType element must begin with the same {scheme} and {authority} parts as the targetNamespace attribute.	Yes	No
1.3.16.	A DTS must not contain more than one link:arcroleType element with equal values of the arcroleURI attribute.	Yes	No
1.3.17.	A link:arcroleType element must have a nonempty link:definition.	Yes	No
1.3.18.	The name attribute of an xsd:element must not equal any xsd:element name attribute in a standard taxonomy schema that appears in the same instance DTS.	Yes	No
1.3.19.	The id attribute of an xsd:element must consist of the recommended namespace prefix of the element namespace, followed by one underscore, followed by its name attribute.	Yes	No
1.3.20.	The nillable attribute value of an xsd:element must equal "true".	Yes	No
1.3.21.	The xsd:element substitutionGroup attribute must not be a member of a substitution group with head "xbrli:tuple" to represent financial statements.	Yes	No
1.3.22.	An xsd:element must not have an xbrldt:typedDomainRef attribute.	Yes	No
1.3.23.	If the abstract attribute of xsd:element is "true", then the xbrli:periodType attribute must be "duration".	Yes	No
1.3.24.	If the abstract attribute of xsd:element is "true", then the type attribute must be "xbrli:stringItemType".	Yes	No
1.3.25.	The xsd:element substitutionGroup attribute must equal "xbrldt:dimensionItem" if and only if the name attribute ends with "Axis".	Yes	No
1.3.26.	The xsd:element name attribute must ends with "Table" if and only if substitutionGroup attribute equals "xbrldt:hypercubeItem".	Yes	No
1.3.27.	If the xsd:element substitutionGroup attribute is not equal to "xbrldt:dimensionItem" or equal to "xbrldt:hypercubeItem" then it must equal "xbrli:item" to represent line item from financial statements.	Yes	No
1.3.28.	If xsd:element name attribute ends with "LineItems" then the abstract attribute must equal "true".	Yes	No

1.3.29.	The xsd:element name attribute must end with "Domain" or "Member" if and only if the type attribute equals "nonnum:domainItemType".	Yes	No
1.3.30.	If xsd:element type attribute equals "nonnum:domainItemType" then the xbrli:periodType attribute must equal "duration".	Yes	No
1.3.31.	If xsd:element type attribute equals "nonnum:domainItemType" then the abstract attribute must equal to "true".	Yes	No
1.4.	Syntax of All Linkbases		
1.4.1.	A link:linkbase must be XML Linking Language (XLink) 1.0 valid.	Yes	No
1.4.2.	An effective arc exists between a target and source element when there is an element with an xlink:type attribute of "arc" and a use attribute of "optional" that has a higher value of the priority attribute than any equivalent arc in its base set.	Yes	No
1.4.3.	A link:linkbase in a filing must have no ineffectual arcs.	Yes	No
1.4.4.	The xlink:role attribute of an element with a type="extended" attribute or a type="resource" attribute must be present and must not be empty.	Yes	No
1.4.5.	The xlink:role attribute of an element with an xlink:type attribute of "resource" must be present and must be defined in XBRL 2.1 or a standard taxonomy or in a file recognised in the disclosure system.	Yes	No
1.4.6.	The text preceding a sharp sign "#" in an xlink:href attribute of link:arcroleRef must be a standard taxonomy or in a file recognised in the disclosure system.	Yes	No
1.4.7.	All extended link elements in a single linkbase must have the same namespace and local name.	Yes	No
1.4.8.	The value of the priority attribute must be strictly less than 10.	Yes	No
1.5.	Syntax of Label Linkbases		
1.5.1.	An element used in a fact or xbrldi:explicitMember in an instance must have a default language standard label in the DTS of that instance.	Yes	No
1.5.2.	An element used in a fact or xbrldi:explicitMember in an instance must have at most one label for any combination of the xlink:role attribute and the xml:lang attribute in the DTS of that instance.	Yes	No
1.5.3.	If an element used in an instance is assigned a label in the DTS whose xml:lang attribute reflects default language, then the DTS must also contain a link:label for the same element and all other attributes with an xml:lang attribute reflecting the default language.	Yes	No
1.5.4.	The DTS of an instance must have no distinct elements having the same default language standard label.	Yes	Yes
1.5.5.	A label linkbase must not have a documentation label for an element defined in a standard taxonomy.	Yes	No
1.5.6.	The text of link:label must be a string of fewer than 511 characters.	Yes	No
1.5.7.	The text of link:label must not have any consecutive XML whitespace characters and no occurrences of '<' unless its xlink:role attribute is 'http://www.xbrl.org/2003/label/documentation'.	Yes	No
1.5.8.	The text of link:label must not have leading or trailing XML whitespace.	Yes	No
1.5.9.	Assign a documentation label for each element declared in the filer extension schema.	Yes	No
1.6.	Syntax of Presentation Linkbases		

1.6.1.	The link:presentationArc element requires an order attribute.	Yes	No
1.6.2.	All effective presentation arcs in the same base set with the same source element must have distinct values of the order attribute.	Yes	No
1.6.3.	An element used in an instance must participate in at least one effective presentation arc in the DTS of that instance.	Yes	No
1.6.4.	If an element used in an instance is the target in the instance DTS of an effective presentation arc having a nonempty preferredLabel attribute, then the element must have a default language label with a value of the xlink:role attribute equal to the preferredLabel attribute.	Yes	No
1.6.5.	If an element used in an instance is the target in the instance DTS of more than one effective presentation arc in a base set with the same source element, then the presentation arcs must have distinct values of the preferredLabel attribute.	Yes	No
1.7.	Syntax of Calculation Linkbases		
1.7.1.	Element link:calculationArc requires an order attribute.	Yes	No
1.7.2.	Element link:calculationArc requires a weight attribute value equal to 1 or -1.	Yes	No
1.7.3.	The source and target of an effective calculation arc must have equal values of the xbrli:periodType attribute.	Yes	No
1.7.4.	There must be no directed cycles in effective relationships having arc role http://www.xbrl.org/2003/role/summation-item .	Yes	No
1.7.5.	If an instance contains non-empty facts for the source and target of an effective calculation relationship, then at least one effective presentation relationship that the source and target appear in must be either (a) a relationship with each other or (b) two relationships with any other elements that share a single extended link.	Yes	No
1.8.	Syntax of Definition Linkbases		
1.8.1.	Element link:definitionArc requires an order attribute.	Yes	No
1.8.2.	The DTS of an instance must contain at most one effective arc with an xlink:arcrole attribute equal to " http://xbrl.org/int/dim/arcrole/dimension-default " for each axis source element.	Yes	No
1.8.3.	The target of an effective arc with an xlink:arcrole attribute equal to " http://xbrl.org/int/dim/arcrole/dimension-domain " or " http://xbrl.org/int/arcrole/dimension-default " must be of type nonnum:domainItemType.	Yes	No
1.8.4.	The xlink:arcrole attribute " http://xbrl.org/int/dim/arcrole/domain-member " is treated as if it were declared with a cyclesAllowed attribute equal to "none".	Yes	No
1.8.5.	The DTS of an instance must contain in each base set, for each source element, at most one effective arc with an xlink:arcrole attribute equal to " http://xbrl.org/int/dim/arcrole/all ".	Yes	No
1.8.6.	An effective arc with an xlink:arcrole attribute equal to " http://xbrl.org/int/dim/arcrole/notAll " must have an xbrldt:closed attribute equal to "false".	Yes	No
1.8.7.	An axis element of a negative table must appear in a positive table in a definitionLink having an equal value of xlink:role.	Yes	No
1.8.8.	The target of an effective relationship with an xlink:arcrole attribute equal to ' http://xbrl.org/int/dim/arcrole/notAll ' must not be the target of an effective arc with an xlink:arcrole attribute equal to ' http://xbrl.org/int/dim/arcrole/all ' in link:definitionLink elements having equal values of xlink:role."	Yes	No

1.8.9.	If the value of attribute <code>xbrldt:targetRole</code> on an effective definition relationship is not empty, then that relationship must have at least one effective consecutive relationship (as defined by the XBRL Dimensions 1.0 specification).	Yes	No
1.9.	Syntax of Reference Linkbases		
1.9.1.	An element that has a company specific namespace must not have a reference.	Yes	No
2	Semantics		
2.1.	Semantics of Filings		
2.1.1.	The XBRL instance documents in a filing must be XBRL 2.1 and XBRL Dimensions 1.0 valid.	Yes	No
2.2.	Semantics of Instances		
2.2.1.	In an instance reporting a fiscal year, non-numeric facts containing text about any portion of that or a prior year must have a <code>contextRef</code> attribute to an <code>xbrli:context</code> for the reporting period year.	No	No
2.2.2.	In an instance reporting a fiscal year-to-date, the non-numeric facts containing text about any portion of the year-to-date or prior year must have a <code>contextRef</code> attribute to an <code>xbrli:context</code> representing the year-to-date.	No	No
2.2.3.	An instance must contain a fact for each combination of line item and period that appears in the primary financial statements.	No	No
2.2.4.	The facts representing a line item that appears in the primary financial statements must use the same element in different periods.	No	No
2.2.5.	An instance must contain a fact for each amount disclosed parenthetically in line items that appears in the primary financial statements.	No	No
2.2.6.	The <code>xsi:nil="true"</code> attribute must be used only to convey a value that is different from both "zero" and different from not reporting the fact at all, or to identify a fact detailed only by a <code>link:footnote</code> .	No	No
2.2.7.	An instance must contain facts containing each complete note to the financial statements and each required disclosure of the financial statements, as a single a "level 1" block of text.	No	Yes
2.2.8.	An instance must not contain facts that do not appear in the financial statements with the exception of information which does not constitute the financial statements.	No	No
2.2.9.	Page headers and footers appearing in an financial statements must not appear in any of the facts or <code>link:footnote</code> elements of an instance.	No	No
2.2.10.	For each significant accounting policy within the accounting policies note, an instance must contain a "level 2" fact containing the policy as a block of text.	No	Yes
2.2.11.	An instance must contain each table within each note to the financial statements as a separate "level 3" fact block of text.	No	Yes
2.2.12.	An instance must contain each monetary value, percentage, and number required to be disclosed by relevant regulations in each note to the financial statements, as a "level 4" fact.	No	Yes
2.2.13.	An element used in numeric facts representing amounts must have an <code>xbrli:periodType</code> attribute that is the same as the amounts reported.	No	No

2.2.14.	If an element used in numeric facts representing amounts in one or more periods has a definition, then the scope of that definition must include the amounts reported for that line item in the financial statements.	No	No
2.2.15.	An element must not be used in numeric facts representing amounts of a line item in different periods if it has a definition that explicitly excludes one or more of the amounts in the financial statements.	No	No
2.2.16.	When there is a choice among different elements that have definitions consistent with a set of facts in one or more periods, use the element with the narrowest definition.	No	No
2.2.17.	If there is a choice among different elements whose type attribute is consistent with a set of facts in one or more periods, use the element with the most specific type attribute.	No	No
2.2.18.	When there is a choice among different elements having distinct link:reference elements in a standard taxonomy, use the element with the most specific reference.	No	No
2.2.19.	When choosing the most appropriate element for facts in one or more periods, the element's xbrli:periodType attribute takes precedence over the type attribute, which takes precedence over the element's documentation string, which in turn takes precedence over the label string, which in turn takes precedence over link:reference elements.	No	No
2.2.20.	Invert the sign of a numeric fact whose element has an xbrli:balance value that is inconsistent with the reporting concept being reported.	No	No
2.2.21.	The content of a numeric fact never has a scale factor.	No	No
2.2.22.	The value of the decimals attribute of a fact must correspond to the accuracy of the corresponding amount as reported in the financial statements.	No	No
2.2.23.	Do not resolve calculation inconsistencies by inserting digits that do not appear in the financial statements.	No	No
2.2.24.	Do not define or use units that imply a scale factor on a currency.	No	No
2.2.25.	Each unit must appear with only one implicit scale factor per instance.	No	No
2.2.26.	Text that is shown in the financial statements at the bottom of a page or at the bottom of a table preceded by a superscript must appear in the instance as the text of a link:footnote element.	No	Yes
2.2.27.	Distinct texts that are shown in the financial statements at the bottom of a page or at the bottom of a table preceded by distinct superscripts must appear in the instance as the text of distinct link:footnote elements.	No	Yes
2.2.28.	Instant context period value must not equal to any duration contexts start date value.	No	No
2.2.29.	An instance must contain a fact for each amount disclosed in text that is shown in the financial statements at the bottom of a page or at the bottom of a table preceded by a superscript.	No	Yes
2.3.	Semantics of Filer Extension Schemas		
2.3.1.	A schema that changes any xsd:element or type declarations or changes any arcs in its DTS from an earlier version of itself in such a way as to invalidate earlier instances must use only the {versionDate} portion of its targetNamespace attribute to identify the new version.	No	No

2.3.2.	A schema must contain at least one link:linkbaseRef element for each of the linkbases that are required for the filing to be valid.	No	No
2.3.3.	Do not define link:arcroleType (or link:roleType for a resource-type element) that means the same as arc roles or resource roles that are already defined in the XBRL 2.1 specification or in a standard taxonomy or in the schema recognised in the disclosure system.	No	No
2.3.4.	Wherever possible, filers should assign a standard and other labels for an element defined in a standard taxonomy schema in preference to declaring a new element in a company schema.	No	No
2.3.5.	The name attribute of an xsd:element should consist of capitalized words corresponding to the standard label, a convention called LC3.	Yes	No
2.3.6.	Do not include filer-specific or period-specific information in an xsd:element name attribute.	No	No
2.3.7.	An xsd:element name attribute should be consistent with its standard label and follow a style similar style to the convention used in standard taxonomies.	No	No
2.3.8.	Declare an xsd:element with an abstract attribute equal to "true" if an appropriate abstract element does not exist, and use the presentation linkbase to have facts rendered sequentially.	No	No
2.3.9.	Declare an xsd:element with a type attribute equal to "xbrli:monetaryItemType" if the standard taxonomy schema contains only monetary type elements that, in the judgment of the filer, are too broadly defined for a given line item.	No	No
2.3.10.	Do not declare different elements for different values of the same underlying line item.	No	No
2.3.11.	An xsd:element with a type attribute equal to "xbrli:monetaryItemType" must have an xbrli:balance attribute if it appears on a statement of financial position.	No	No
2.3.12.	An xsd:element with a type attribute equal to "xbrli:monetaryItemType" has an xbrli:periodType attribute equal to "instant" if and only if it represents beginning and end of period balances, as distinct to balances defined over a period of time.	No	No
2.3.13.	An xsd:element with a type attribute equal to "xbrli:monetaryItemType" that represents an adjustment must have a xbrli:periodType attribute equal to "duration".	No	No
2.3.14.	A ratio of values that would have the same unitRef attribute must be declared as an xsd:element with a type attribute equal to "num:percentItemType" even though its value is not scaled by 100.	No	No
2.3.15.	A ratio of values for which its facts would have different values for the unitRef attribute and a denominator other than xbrli:shares must be declared as an xsd:element with a type attribute equal to xbrli:pureItemType.	No	No
2.3.16.	If facts in an instance are dates, but no xsd:element in a standard taxonomy with a type attribute equal to "xbrli:dateItemType" is appropriate, declare an xsd:element with a type attribute equal to "xbrli:dateItemType".	No	No
2.3.17.	If facts in an instance are a mixture of text, date, numbers or other values, and no xsd:element in a standard taxonomy with a type attribute equal to "xbrli:stringItemType" is appropriate, then declare an xsd:element with a type attribute equal to "xbrli:stringItemType".	No	No

2.3.18.	If no standard taxonomy schema contains domain member elements specific enough to distinguish between facts needing distinct values of "xbrldi:explicitMember", then declare an xsd:element with a type attribute equal to "nonnum:domainItemType".	No	No
2.3.19.	Do not declare an xsd:element with a type attribute equal to "nonnum:domainItemType" as an explicit "total" domain member for existing axes.	No	No
2.3.20.	For value and narrative facts, declare an xsd:element with a substitutionGroup attribute equal to "xbrldt:dimensionItem" if a standard taxonomy schema contains no axis element for a reporting axis appearing in the financial statements.	No	No
2.3.21.	Declare an xsd:element with a substitutionGroup attribute equal to "xbrldt:hypercubeItem" if a standard taxonomy schema contains no table elements appropriate to the reporting axis needed.	No	No
2.3.22.	If an xsd:element is declared with a substitutionGroup attribute equal to "xbrldt:hypercubeItem" then an xsd:element with a type attribute equal to "nonnum:escapedItemType" must also be declared, to be used for the fact that will contain the entire text of that table.	Yes	No
2.4.	Semantics of Label Linkbases		
2.4.1.	Assign a label of an element used in an instance the same text as the corresponding line item in the financial statements.	No	No
2.4.2.	Assign a label of a parenthetical element the same text as the corresponding text in the financial statements.	No	No
2.4.3.	An xsd:element should be assigned a total label if the element will be presented with different labels depending on whether it is shown as a line item or as a summation of other line items.	No	No
2.4.4.	An xsd:element with a type attribute equal to "xbrli:monetaryItemType" that does not have an xbrli:balance attribute must have a definition that disambiguates its sign.	Yes	No
2.4.5.	Assign a "negated" label from http://www.xbrl.org/lrr/role/negated-2009-12-16.xsd to an xsd:element with an xbrli:balanceType attribute that is inconsistent with the presentation in the financial statements.	No	No
2.4.6.	If an xsd:element with an xbrli:periodType attribute equal to "instant" could be presented as either a beginning or end of period value in a roll forward, assign period start labels or period end labels.	No	No
2.4.7.	Assign an xsd:element different label roles if the same element will appear with different labels depending on the presentation arcs that have it as a target.	No	No
2.4.8.	A label linkbase of a standard taxonomy should not be included in the DTS of an instance.	Yes	No
2.5.	Semantics of Presentation Linkbases		
2.5.1.	A presentation linkbase of a standard taxonomy should not be included in the DTS of an instance.	Yes	No
2.5.2.	The element of every fact in an instance must participate in an effective presentation arc in a base set whose xlink:role attribute corresponds to the locations where the fact appears in the financial statements.	No	No
2.5.3.	Organize the effective presentation arcs in a base set using the ordering and indentation of the facts in the financial statements.	No	No

2.5.4.	All elements of facts corresponding to parentheticals in the financial statements must be the targets only of effective presentation arcs in one base set and all having the same source abstract element.	No	No
2.6.	Semantics of Calculation Linkbases		
2.6.1.	A calculation linkbase of a standard taxonomy should not be included in the DTS of an instance.	Yes	No
2.6.2.	If the financial statements shows two or more line items along with their net or total during or at the end of the required context period, and the instance contains corresponding numeric facts, then the DTS of the instance must have an effective calculation arc from the total element to each of the contributing line items.	No	No
2.6.3.	Notes to financial statements that contain alternative line items in the financial statements that separately sum to the same total amount must result in calculation arcs in distinct base sets.	No	No
2.6.4.	A fact in an instance whose element is the source of an effective calculation arc in the instance DTS should not have the same calculation arc target in more than one base set.	No	No
2.7.	Semantics of Definition Linkbases		
2.7.1.	A definition linkbase of a standard taxonomy should not be included in the DTS of an instance.	Yes	No
2.8.	Semantics of Reference Linkbases		
2.8.1.	A reference linkbase of a standard taxonomy should not be included in the DTS of an instance.	Yes	No
3	Document and Entity Information (DEI)		
3.1.	DEI Syntax		
3.1.1.	Reserved	NA	NA
3.2.	DEI Semantics		
3.2.1.	For each required DEI element, an instance must contain a fact with that element and a contextRef attribute referring to its required context.	Yes	Yes
3.2.2.	The content of the fact provided for the DEI element "Filer identifier" in the required context must equal the content of the xbrli:identifier element in that context.	Yes	Yes