



RIXML Specification Users Guide & Data Dictionary Report

June 20, 2001

RIXML Specification Version 1.0

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Overview

RIXML.org is a consortium of buy- and sell-side financial services firms that are committed to improving the process of electronic research distribution by creating an open industry standard. The goal of RIXML.org is to define an open protocol that will improve the process of categorizing, aggregating, comparing, sorting, searching, and distributing global financial research.

The primary objective of the initial release of the RIXML specification is to provide extensive capabilities for tagging any piece of financial research content, in any form or media, with sufficient metadata information to allow research users to search, sort, and filter the published research and to provide highly relevant information to decision-makers. A solution for “componentizing” research content has been proposed for a future release of the specification.

The purpose of this guide is to outline the approach taken by RIXML.org in creating the RIXML standard and, by explaining some fundamental concepts, such as XML, object modeling, and schemas, to help readers understand the standard. In addition, the RIXML schema is described, including all attributes and elements and, where applicable, guidelines for using them.

Our Approach

As a first step, all of the participants of the consortium provided a set of real-life scenarios — “use cases” — in which a standard like RIXML would help them. Buy-side participants said that they would be like to be able to search, sort, and filter information published by the research providers, and to provide relevant research to their decision-makers in an easy-to-use format. Sell-side firms stated that they would like to be able to focus on developing and producing content, and to dedicate fewer resources to the technical issues around delivering it. Other scenarios offered future business opportunities for both the buy- and sell-side firms.

In November 2000, RIXML.org conducted a two-day workshop to further explore these scenarios. The outcome of the workshop was captured in an Excel spreadsheet that represented the working draft. After extensive discussions and debates, this draft was refined, leading to the current version of the draft document. A technical committee was then created and given the task of translating this working draft into the RIXML schema.

The technical committee started by modeling the business requirements into an object model. (An explanation of object models is included in this guide.) It also re-organized the draft document to better address the requirements of and expectations for the RIXML schema. A parallel effort helped translate this object model into the actual RIXML schema. Some members of the technical committee took the schema back to their organizations and presented it to the potential end-users of the specification. The comments and concerns they elicited have been incorporated into the schema; others are being maintained in an issues log and will be further reviewed and addressed



in subsequent releases of the specification. The following items make up the specification package:

Users Guide (this document)

The Users Guide defines the elements and attributes that make up the RIXML schema vocabulary. It incorporates the object model — the visual representation of the schema, which displays the relationships between these elements and attributes.

RIXML Schema

The RIXML Schema is the actual XML schema that represents the RIXML vocabulary (RIXML.xsd).

Change Log

The Change Log is an Excel worksheet that represents all the changes that have been incorporated into the specification between subsequent releases. These changes are based upon the comments and feedback received as well as new functionality added as part of the ongoing schema development work.



Why XML?

The eXtensible Markup Language (XML) is an initiative proposed by the World Wide Web Consortium (W3C) as an alternative to HTML, which currently dominates Web publishing. Complementary to HTML, XML can be implemented for information publishing and data-intensive applications alike. Unlike HTML, XML is a meta-language — i.e., it allows users to create their own markup languages or vocabularies for their own purposes.

HTML is a standard set of tags that are defined to present web pages in a web browser when a user requests a page. Any tag that is not defined as part of the HTML specification is not recognized by the browser and may be displayed as standard text. Web pages displayed in HTML can be static — generic informational literature — or dynamic — generated from information that is in some way related to the user or is customized based on the user's preferences. Information in dynamic web pages can come from databases or even from other web sites; it can be either raw information as it comes from the data sources, or information that is analyzed, extracted, sorted, styled, and customized to create a personalized web experience for the end user.

Because XML provides the ability to manipulate data in a much more advanced fashion than HTML, it has very quickly become the markup language of choice for web developers. Unlike HTML, XML allows the data to be separated from its presentation. While HTML can be used to present the information using standard tags, XML gives users the capability to create their own custom tags to describe the data contained within them.

The following example illustrates the difference between HTML and XML. Here is some HTML code:

```
<p><font name = "Arial" size="3">Spectacular Quarterly  
Earnings Reported</font></p>  
<p><font name = "Arial" size="1">Earnings Announcement  
for XYZ Corp.</font></p>
```

HTML tells us about how this data is going to be *displayed*.

In XML, the same information might look like this:

```
<Title>Spectacular Quarterly Earnings Reported</Title>  
<SubTitle> Earnings Announcement for XYZ Corp.</SubTitle>
```

XML allows content to *describe itself through the tags in which the data are enclosed*. These tags can be leveraged to manipulate the data depending on the end user's requests or requirements. Data tagged this way can be presented through different media types (browser, cell phone, desktop application, etc.) or displayed differently (e.g., as a grid or in a chart) on different sites, by changing the presentation style, without making any changes to the actual data.



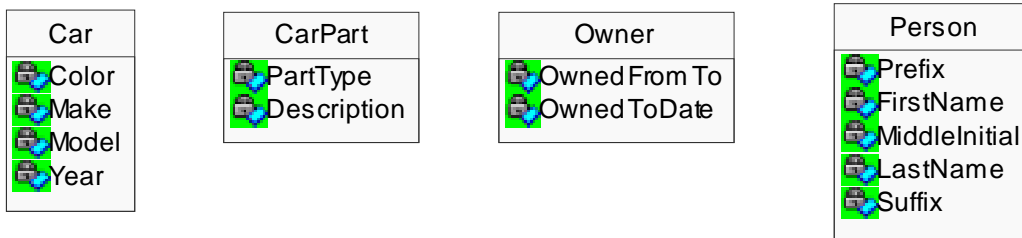
An XML schema is a set of components and rules that represent the business vocabulary of an industry, a process, or an application. Schemas help define how these rules affect the components that represent the business, or how these components relate to each other. Any XML document that is created using these rules and components needs to be compliant with this schema to be a valid representation of the business vocabulary. Once the schemas are validated and embraced by an industry as the standard mechanism for communicating or exchanging information, they provide the capability for searching or filtering information quickly.



What is an Object Model and how do you read it?

All industries and businesses are made up of a set of components and rules that represent the business. The viability of most industries and businesses depends upon how these rules affect the components that represent the business, and how these components interact with each other. An object model is a visual representation of these components and the rules that govern them. Object models can be very elaborate, to represent the entire business/enterprise; or they can be very focused, to represent a particular aspect of the business; or they can be used to model a solution for a specific business problem.

Generally speaking, *objects* can be defined as the components that represent the business; the rules that govern these components become the *relationships* that exist between these objects. In the context of RIXML, these objects are represented as rectangular boxes (classes) that are divided into two sections — the top containing the name of the class (identity), and the bottom containing facts (attributes) that describe this class. This will become clear from the following example.



In this example, Car is the *class*, as defined by its position in the top container of its box. There are traits that define this car; these are called the *attributes*. In this example, the attributes are Color, Make, Model, and Year. By supplying values for these attributes, we can uniquely define a car. Some other classes are CarPart, Owner and Person. By themselves, these classes might not mean much, or they might describe an object without much relevance as to how this object interacts with its environment. But if we were somehow able to relate these objects with one another, they could potentially fit together as a jigsaw puzzle and explain a small portion of the automobile industry.

Let's start with a definition of some of the most commonly used relationship types — inheritance, associations and aggregations.

Inheritance

An inheritance represents a connection between two classes that shows that the subclass shares the structure and behavior defined in one or more super classes. This allows the super class to be treated as a generic object that can be used by some other application, or could be



provided by some other application. The triangular arrow connecting the Owner and Person means that Owner is the subclass that shares all the attributes of the parent class (Person). So, Owner now has all the attributes of Person besides the OwnedFromDate and OwnedToDate. In other words, Owner is *derived* from Person.



Association

An association represents a semantic connection between two classes. This bi-directional relationship is the most commonly used of all relationships. It is represented as a single line drawn to connect two classes. For example:



Aggregation

The aggregation relationship is used to show a whole-and-part connection between two classes, as shown in the following example:



The class at the Car end of the aggregation relationship is sometimes called the Aggregate class (represented by a diamond at the end of the connecting line). The class at the CarPart end of the aggregation relationship is the Part class, instances of which are contained or

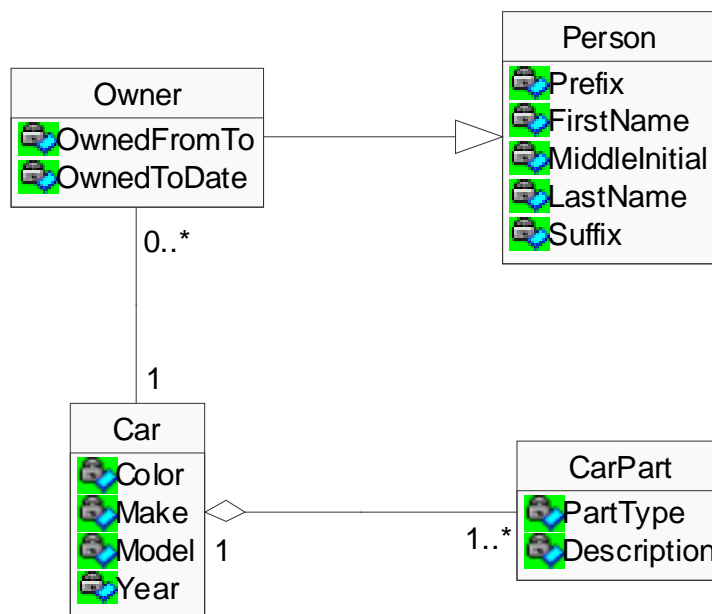


owned by the Aggregate object. Use of the aggregation relationship shows that the aggregate object is physically constructed from, or logically contains, another object.

But, you may say, a car is made up of more than one part. How do you represent this in the object model? The concept of *Cardinality* provides the answer.

Cardinality

Cardinality specifies how many instances of one class may be associated with a single instance of another class. You can indicate cardinality for classes and relationships. An example in the context of the current example is:



The following values can be used to represent cardinality:

Value	Description	Value	Description
0	Zero	1	One
0..1	Zero or One	1..*	One or More
0..*	Zero or More	*	Unlimited number

In the above example, the value on the Car class side of the relationship is 1, and on the Owner class side, 0..*. This means that a car may have zero or many owners. This is true in the real world, as a car has no owner until someone purchases it. On the other hand, it could have a single owner, or could be jointly owned (e.g., a husband and wife purchasing a car together).



In the other instance, there is an aggregation relationship between the Car and the CarPart classes. Car class is the aggregate class, as described earlier. The value on the Car side is *1* and the value on the CarPart side is *1..**. This means that the Car is made up of at least one CarPart, and can be made up of from one to an unlimited number of CarParts.



Elements and Attributes — Guidelines

Elements and attributes are different ways to define an object in the context of an XML schema. In this documentation, we will differentiate between elements and attributes using capitalization. Specifically, elements begin with a capital letter and attributes begin with a lower-case letter.

Rules for Determining Attribute vs. Element

The following guidelines were used to determine whether an item should be an element or an attribute in the schema:

- If an item has a specific global format or follows a global code, it should be an attribute.
- If it is obvious that an item is atomic — i.e., it cannot or will not be further meaningfully subdivided — it should be an attribute.
- All other items will be treated as elements, unless otherwise decided.

Naming Conventions

The following naming conventions were used when translating the working draft into the object model and thereby into the schema:

- **Elements:** The first character of all words making up the element name will be in upper case. All other characters will be in lower case, with no spaces between the words (UpperCamelCase).
- **Attributes:** The first character of the first word of an attribute will be in lower case. The first characters of all the subsequent words that make up the name will be in upper case. All other characters will be in lower case, with no spaces between the words (lowerCamelCase).



The RIXML Object Model

The Research class is the root of the RIXML Specification. Product is the first child off the root class. Within that, the RIXML Object Model has been logically divided into the following four major sections:

Source Content

This section documents the *information about the sources* that provide investment research. These sources could be the publishers, individual analysts, or teams of analysts.

Content Description

This section *describes the content itself* — including the title, subtitle, synopsis, and the name of the file or files that constitute the content.

Context Description

This section documents *information that describes the content* — such as use, existence, research discipline, related content, product focus, sectors, regions, issuers, and securities.

Legal

This section deals with *legal information that needs to accompany a research product*.

The Product class is the aggregate class that comprises these other four classes. Within each one of these sections, object-model diagrams are provided that show the classes and the relationships between those classes.

The RIXML Schema

The RIXML schema is the actual RIXMLSchema.xsd file that represents the relationships and components defined within the object model. This file can also be used to validate actual RIXML instance documents to ensure that the firm implementing the specification is creating RIXML-compliant content. As mentioned earlier, for the purpose of documentation, we will differentiate between an element and an attribute using an upper- or lower-case first letter, respectively.

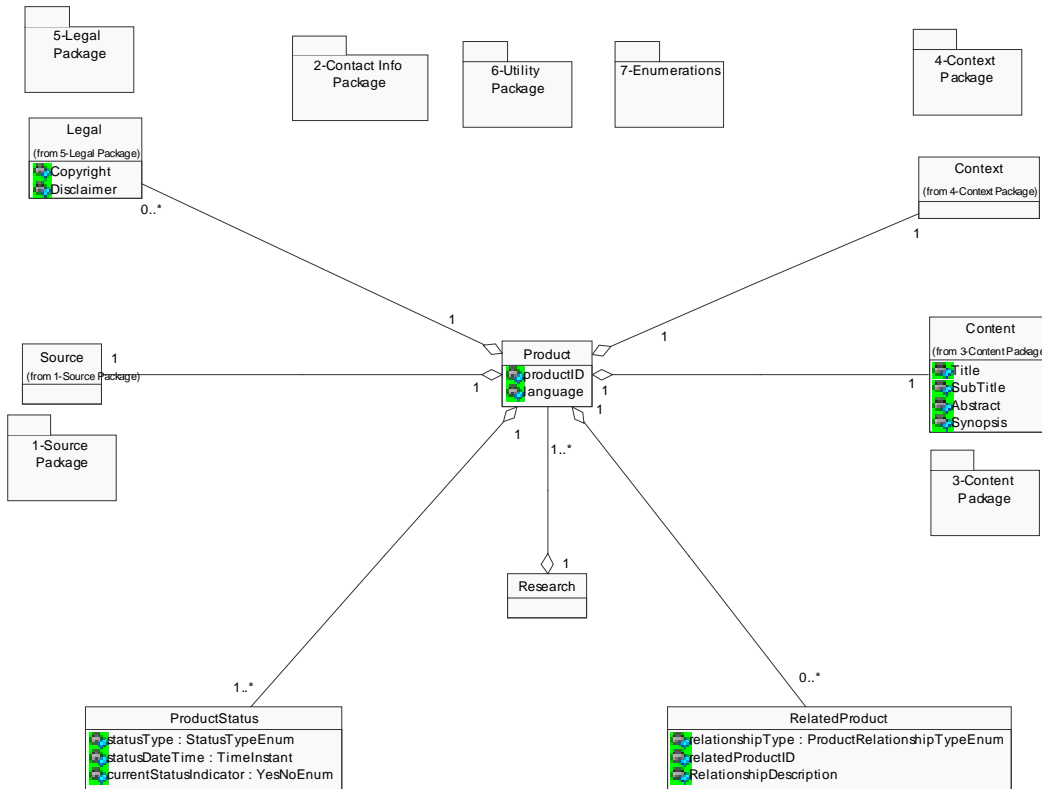
Each section in the following documentation is made up of a package name (a name for the collection of objects that were logically packaged together). Within each package there is a description of classes that make up that package. Following the definition of any class is a listing and definition of the attributes that make up that class. If the class is an aggregator of other classes, they are listed after the attributes listing. Where an enumeration modifies an attribute (denoted by the suffix “Enum,” e.g., “SubjectEnum”), refer to the list of Enumerations at the end of this guide.



The Class Diagrams, Element and Attribute Definitions



Class Diagram: High Level Relationships



Research

Research is the root tag for a discrete piece of research.

Aggregations:

Product (Required, Multiples Allowed)

Product

Product refers to a unique "research idea", as opposed to an actual research publication. It is possible to publish multiple documents or other files (called "resources") with the same productID, provided they all refer to the same discrete research idea.

Examples of a product include a research note, research report, conference call webcast, and morning meeting compilation. Examples of multiple resources published with the same productID are (1) a document published in English, with exact translations in German,



French, and Japanese, (2) an audio file of a presentation and the transcript of the publication or (3) a single report that consists of a PDF and an Excel file.

Elements and Attributes:

productID (Required, String)

Used in combination with the language and publisherID tags to uniquely identify a product. When one document is published in multiple languages, the same ProductID is used.

The publisher can choose any productID, provided the above combination (productID + language + publisherID) is globally unique. To ensure uniqueness it is recommended that a Universal Unique Identifier (UUID) be used as the productID. UUIDs can be generated on any computer, regardless of platform or operating system. A UUID is a 128-bit (16-byte) integer that is virtually guaranteed to be unique in the world across space and time. The Open Software Foundation (OSF) created UUIDs, as part of their Distributed Computing Environment (DCE).

language (Required, String)

Indicates the language of the RIXML document; i.e. the language of the metadata and tags. Described using the ISO 639-2/T Code. Used in combination with the productID and publisherID to uniquely identify a Product.

Aggregations:

Source (Required)

Context (Required)

Content (Required)

Legal (Optional, Multiples Allowed)

RelatedProduct (Optional, Multiples Allowed)

ProductStatus (Required, Multiples Allowed)

ProductStatus

Describes the status of the publication.

Elements and Attributes:

statusType (Required, StatusTypeEnum)

Indicates the status of the document, for example Published, Recalled, Revised.

NOTE: "Pending" should only be used for internal use prior to publication. If the status of the product changes, the currentStatusIndicator and statusDateTime for the current status must be updated, and the new statusType (with the associated currentStatusIndicator and statusDateTime information) must be added.

**statusDateTime** (Required, TimeInstant)

Indicates the date and time at which the status was assigned, expressed using ISO 8601 as refined by the World Wide Web Consortium's note <http://www.w3.org/TR/NOTE-datetime>.

currentStatusIndicator (Required, YesNoEnum)

Indicates whether the related statusType is the current status or not. Note that while a product can have multiple statuses, only one of them can be current.

RelatedProduct

Describes how content contained in this product is associated with other products, or how content in other products is associated with this one. Can have none or any number of relationships to other products.

Elements and Attributes:**relationshipType** (Required, ProductRelationshipTypeEnum)

Indicates the type of relationship between this product and another product, for example, Part of, Version of, Format of.

relatedProductID (Required, String)

The unique productID of the product to which this product is related (as stored in Product.productID of the related document)

RelationshipDescription (Optional, String)

The description of the relationship between the current product and the other product to which it is related.

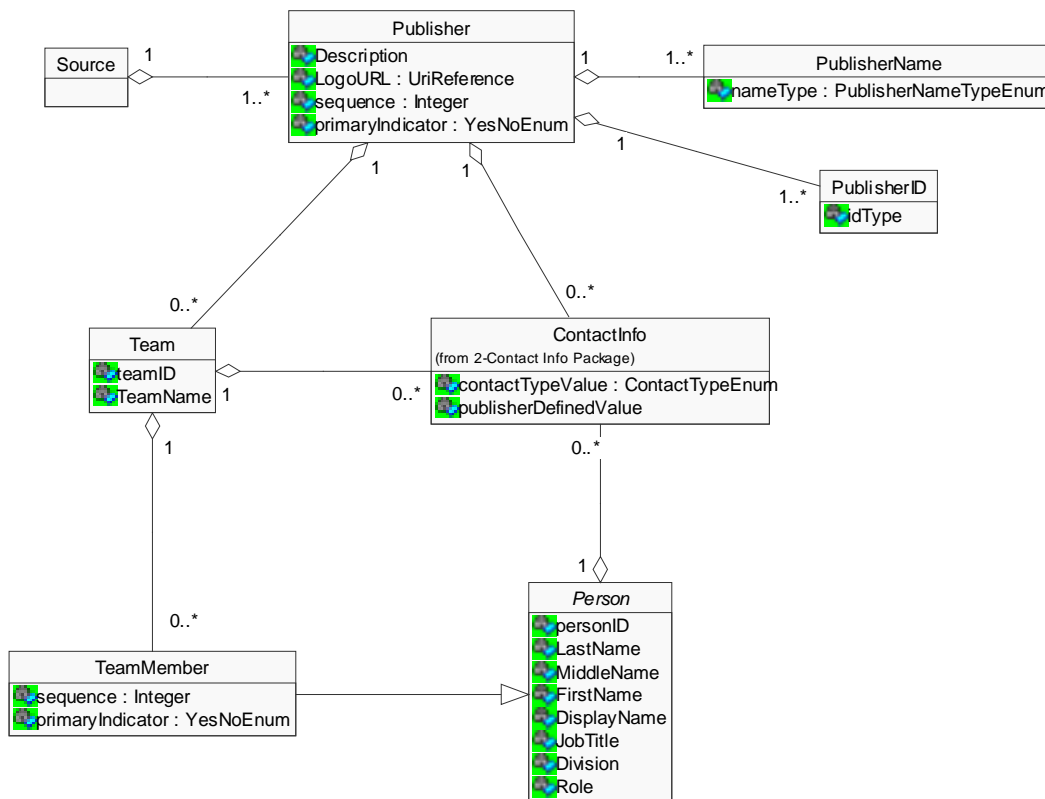


Source Details

The Source section describes the source of the research product, including the publishing firm(s), individual(s), and / or team(s) involved in creating the research. Information about each source is described in the next section, Contact Info Details.

Class Diagram: Source Details

Source Package



Source

The top-level element of the Source section.

**Aggregations:**

Publisher (Required, Multiples Allowed)

Person

Describes the individual authors who publish content. Each person, whether an individual author or a team member, is described as a TeamMember. TeamMember is derived from Person.

Elements and Attributes:

personID (Required, String)

An identifier used to identify the person. For accurate identification it is required that the personID is unique for a given publisher, but the implementation of the ID is left to the publishers to implement as they deem fit.

Examples: combination of LastName and FirstName, combination of internal employee ID and RIXML publisher ID.

LastName (Required, String)

Strongly Recommended. Indicates the last name of the person.

MiddleName (Optional, String)

Indicates the middle name of the person.

FirstName (Optional, String)

Indicates the first name of the person.

DisplayName (Optional, String)

Strongly Recommended. Indicates how the publisher or person wants the name to be presented, for example: Dr. John Doe Sr. CPA, CFA.

JobTitle (Optional, String)

Indicates the official title of the person within an organization.

Division (Optional, String)

Indicates the division that the person officially works for within an organization.

Role (Optional, String)

Indicates the functional role played by the person in an organization, for example, analyst, strategist, economist, etc.

**Aggregations:****ContactInfo** (Optional, Multiples Allowed)**Publisher**

Describes the organization publishing the document. Multiple publishers of one product are possible. These publishers can be subsidiaries of the same organization or different organizations working together to publish content (as in a joint venture). However, there can only be one primary publisher, which is captured by the `primaryIndicator`.

Elements and Attributes:**Description** (Optional, String)

Optional description of the publisher. Used to include any additional information about the publisher.

LogoURL (Optional, UriReference)

Indicates the URL location of the logo of the publishing organization.

sequence (Optional, Integer)

If there are multiple Publishers, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Publisher.

primaryIndicator (Required, YesNoEnum)

Indicates the primary publisher. When multiple publishers (subsidiaries of the same organization or different organizations) come together to publish content, one must be listed as primary (generally the parent organization or the name of the joint venture).

Aggregations:**PublisherID** (Required, Multiples Allowed)**PublisherName** (Required, Multiples Allowed)**ContactInfo** (Optional, Multiples Allowed)**Team** (Optional, Multiples Allowed)**PublisherID**

An identifier used to identify the publisher. At least one `PublisherID` is required and multiple are possible. For example, for a product distributed via multiple vendors, each vendor may require a different `PublisherID`, with the `idType` for each `PublisherID` identifying the name of the vendor in the manner specified by the vendor.

The actual ID is stored as free text in the content of the `PublisherID` node. A UUID can also be used as one of the IDs.

**Elements and Attributes:****idType** (Required, String)

Indicates the type of ID used. Examples: CUSIP, VendorCode.

PublisherName

The name of the publisher. A publisher can have multiple names as enumerated in the Name Types. At least one name is required for the content to be valid. Display name is the preferred name if only one name is provided.

Elements and Attributes:**nameType** (Required, PublisherNameTypeEnum)

The name can be one of the following types - legal, local, display, or parent. Use Display if using only one nameType, unless one of the other nameTypes is preferred.

Team

The Team aggregation is used to hold the name(s) of the individual author(s) and/or the name of a team. In the case of an individual author, the person tag and its associated personID are used (no teamID or description is needed). Teams can be formally organized teams or they can be fluid teams that come together to deliver content. If the "team" consists of only one person, there is no need to define a team ID and description; it is sufficient to have the 'person' tag and the associated personID under the 'team' tag.

Elements and Attributes:**teamID** (Optional, String)

An identifier used to identify the team in all publications published by the team. Publisher decides how to create the teamID.

TeamName (Optional, String)

Indicates the name of the team. This is not required, but can be used where teams are formally named or if there is a name created for the team publishing a single product (document).

Aggregations:**ContactInfo** (Optional, Multiples Allowed)**TeamMember** (Optional, Multiples Allowed)**TeamMember**

Used to define the members of a team, namely the author(s) of the product. The TeamMember highlights primary authors, and describes the display order of multiple authors.

***Derived from Person******Elements and Attributes:***

sequence (Optional, Integer)

If there are multiple TeamMembers, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each TeamMember.

primaryIndicator (Optional, YesNoEnum)

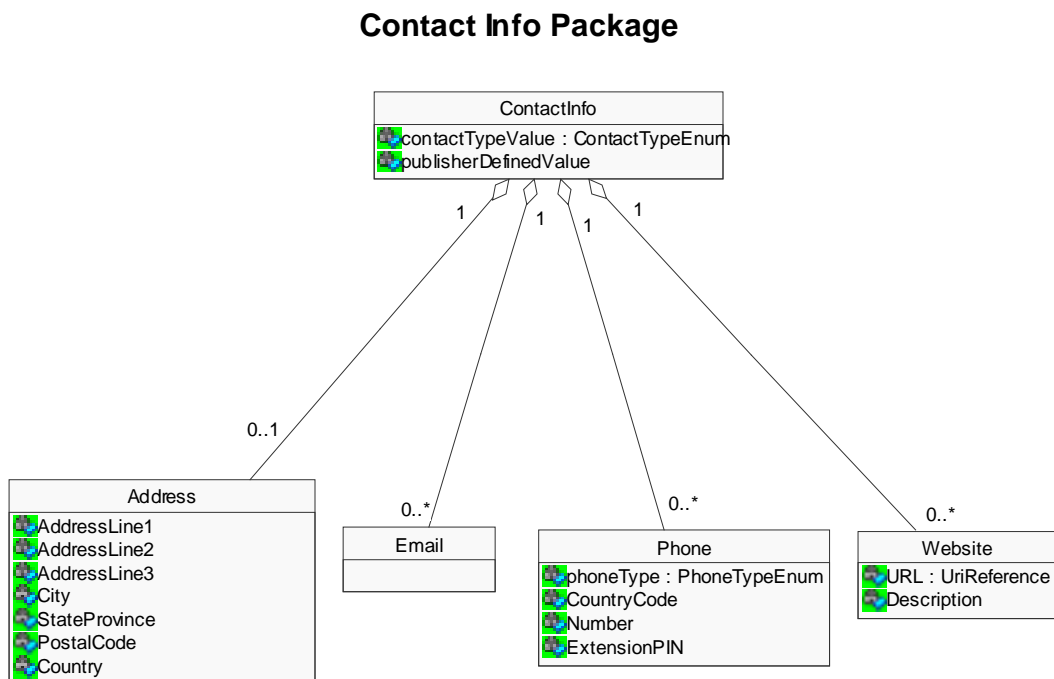
Indicates which team member is the primary author of the product. A team can have more than one primary author.



Contact Info Details

The ContactInfo section contains the contact information for a publisher, team or person involved in creating a research product as defined in Source Details. Can describe address, phone, email and / or website contact information, at least one of which is required.

Class Diagram: Contact Info Details



ContactInfo

The top-level element of the ContactInfo section.

Elements and Attributes:

contactTypeValue (Required, ContactTypeEnum)

Used to indicate the type of contact - business, personal or publisher defined.

publisherDefinedValue (Optional, String)

The value of the contact type if publisherDefined is selected.

**Aggregations:**

Email (Optional, Multiples Allowed)

Phone (Optional, Multiples Allowed)

Website (Optional, Multiples Allowed)

Address (Optional)

Address

Strongly Recommended. Describes the street address.

Elements and Attributes:

AddressLine1 (Required, String)

Indicates the first line of the street address.

AddressLine2 (Optional, String)

Indicates the second line of the street address.

AddressLine3 (Optional, String)

Indicates the third line of the street address.

City (Optional, String)

Indicates the city where the street address is located.

StateProvince (Optional, String)

Indicates the State/Province/Canton/County information of the address.

PostalCode (Optional, String)

Indicates the Postal code, quadrant, zone or Zip code.

Country (Required, String)

This field indicates the country, as it should be displayed.

Email

Strongly Recommended. Indicates the email address.

Phone

Strongly Recommended. Describes the telephone, fax or pager numbers.

Elements and Attributes:

phoneType (Required, PhoneTypeEnum)

Phone numbers can be one of the following types - telephone (office), fax, pager and mobile

**CountryCode** (Required, String)

Telephone country code for the phone number.

Number (Required, String)

Phone number including area code.

ExtensionPIN (Optional, String)

Used for extension number for a phone or a PIN. PINs are sometimes associated with pagers.

Website

Strongly Recommended. Describes the website information.

Elements and Attributes:**URL** (Required, UriReference)

Web address associated with the person or organization

Description (Optional, String)

A brief description of the website can be included here, if desired. A person or organization can have multiple websites, for example, a team of analysts could list their own website as well as the website of their organization. If there are multiple websites, each one should have a description (for clarity).

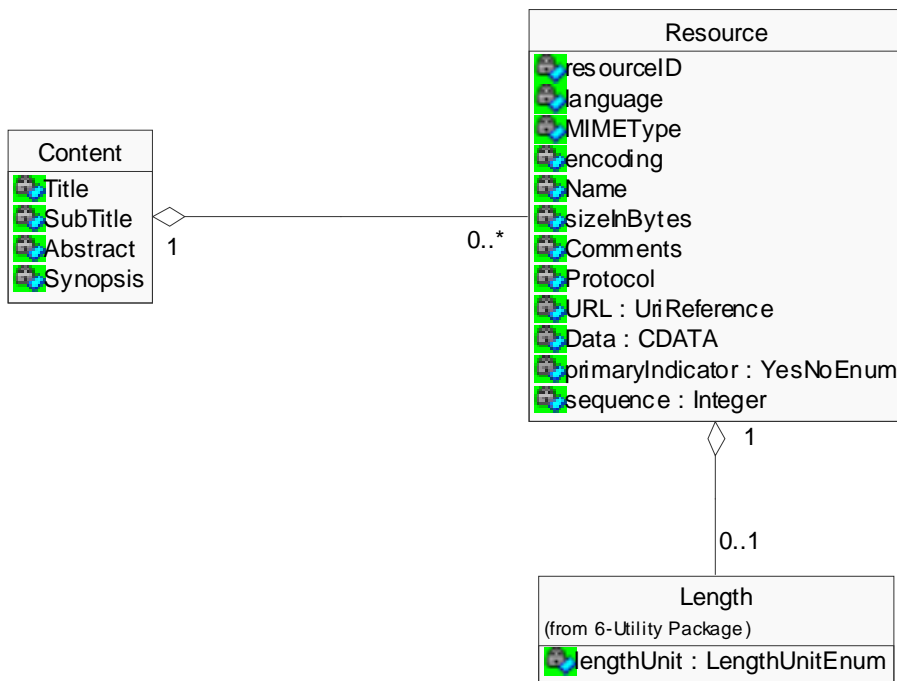


Content Details

The ContentPackage is the container for holding the name (title) of the publication (the product) described by the metadata in the context package, along with the URLs, individual files, and/or data contained within the tagging (the resources) associated with this product, and the abstract and synopsis of the publication.

Class Diagram: Content Details

Content Package



Content

The top-level element of the Content section.

Elements and Attributes:

Title (Required, String)

This is the primary title of the research product.

**SubTitle** (Optional, String)

This is the sub title of the research product.

Abstract (Optional, String)

A summary of the information contained in the product. Highlights the salient issues in the document. Suggested maximum length is 3000 characters.

Synopsis (Optional, String)

A very brief statement of the subject addressed in the product. This is typically only a few lines and would be appropriate for highly abbreviated displays. Suggested maximum length is 300 characters.

Aggregations:**Resource** (Optional, Multiples Allowed)**Resource**

Describes the resource that contains the media representation of the research product. For example, can describe a file, URL, or encoded data that represents the product. There can be any number of Resource elements associated with a product. For example, a product may consist of both a PDF document (one resource) and an Excel spreadsheet (another resource), or there could be multiple language versions of the same document (each one a resource).

Elements and Attributes:**resourceID** (Required, String)

The unique identifier of the resource within the product. The implementation of the resourceID is left for the publishers of content to implement as they deem fit. At a minimum, the resourceID is required to be unique within the product(s) it appears under.

language (Optional, String)

Indicates the language of the resource, described using the ISO 639-2/T Code. Highly recommended, especially when multiple resources are included that are different translations of the same product. Whereas the language attribute of the Product element represents the language of the metadata describing the Product, the language attribute of the Resource element represents the language of the media representation (often a file) of the product. These two language attributes may be different.

MIMETYPE (Required, String)

Indicates the type of media used to store the content. MIMETYPE is used to determine the software product(s) that can read the content. MIMETypes are described in RFC 2046.

encoding (Optional, String)

Indicates the encoding format of the content (UTF-16, UTF-64, etc). Used when content is included as encrypted data in the Resource.Data element.

**Name** (Required, String)

Indicates the name of the resource, e.g. the file name.

sizeInBytes (Optional, String)

Indicates the size of the resource in bytes. Could be used by the end user to estimate the download time and storage needs.

Comments (Optional, String)

Any additional comments that are deemed necessary. For example, which software version is required to open the document?

Protocol (Optional, String)

Indicates the protocol (rules determining format and transmission). This eliminates the need for parsing this information from the URL.

URL (Optional, UriReference)

Indicates the URL of the resource. Every Resource element requires either the URL or the Data element to allow the consumer to get to the actual research content. It is also possible to include both the URL and the Data elements for a single Resource.

Data (Optional, CDATA)

Used when the content (data) of the research product needs to be included within the RIXML document. The data must be encoded using the method described by the Encoding tag.

primaryIndicator (Required, YesNoEnum)

Indicates the primary Resource. At least one Resource must be set to Primary.

sequence (Optional, Integer)

If there are multiple Resources, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Resource.

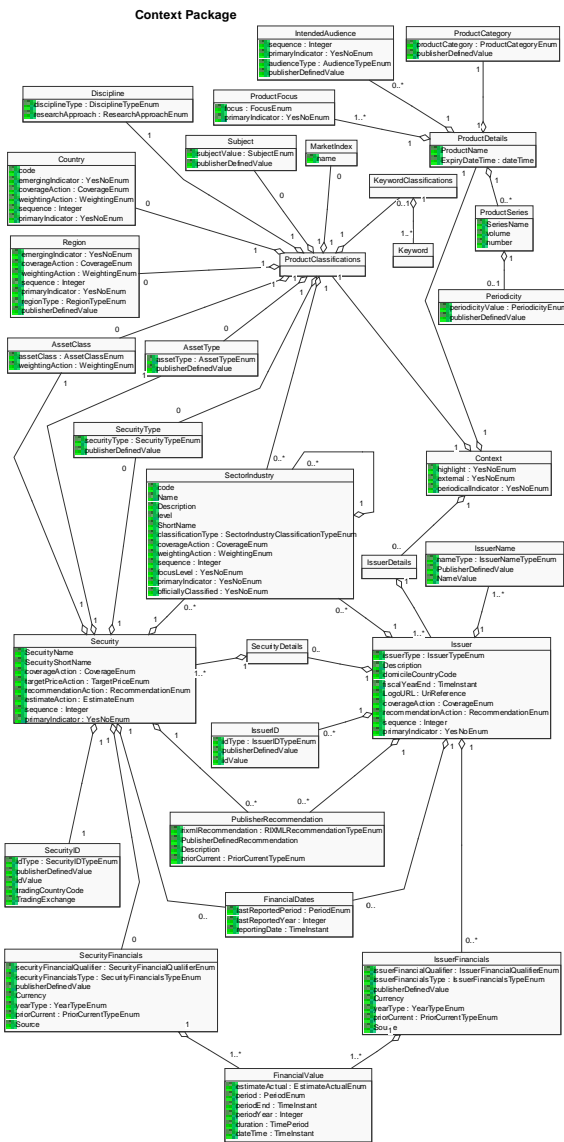
Aggregations:**Length** (Optional)



Context Details

The Context section contains information that describes the categorization of the Product. It stores most of the data that will be used by research consumers to search for, filter out and extract research products, such as research discipline, product focus, sectors, regions, issuers, and securities.

Class Diagram: Context Details



Context

The top-level element of the Context section.

Elements and Attributes:

highlight (Optional, YesNoEnum)

Allows the publisher to 'highlight' a specific product, i.e. identify a product as a high priority item.



external (Required, YesNoEnum)

Indicates whether the content is for internal or external consumption.

periodicalIndicator (Required, YesNoEnum)

Indicates whether the content is a periodical or not.

Aggregations:

ProductDetails (Required)

ProductClassifications (Required)

IssuerDetails (Optional)

IssuerDetails

This is the container class for all the tags available for use when describing an Issuer.

Aggregations:

Issuer (Required, Multiples Allowed)

ProductClassifications

This is the container class for all the tags available for use when classifying the research product.

Aggregations:

KeywordClassifications (Optional)

Discipline (Required, Multiples Allowed)

Subject (Optional, Multiples Allowed)

MarketIndex (Optional, Multiples Allowed)

Country (Optional, Multiples Allowed)

Region (Optional, Multiples Allowed)

AssetType (Optional, Multiples Allowed)

AssetClass (Optional, Multiples Allowed)

SecurityType (Optional, Multiples Allowed)

SectorIndustry (Optional, Multiples Allowed)

ProductDetails

This is the container class for all the tags available for use when describing any research product.

**Elements and Attributes:****ProductName** (Optional, String)

The proprietary name of the product as defined by the research provider. This can be used to express a brand name. Examples of product names are "ABC Investment Bank's Tech Weekly", or "From the Floor in Asia".

ExpiryDateTime (Optional, dateTime)

Indicates the date and time when the published content ceases to be valid. Expressed using ISO 8601 (as refined by the World Wide Web Consortium's note <http://www.w3.org/TR/NOTE-datetime>).

Aggregations:**ProductCategory** (Required)**IntendedAudience** (Optional, Multiples Allowed)**ProductFocus** (Required, Multiples Allowed)**ProductSeries** (Optional, Multiples Allowed)**Country**

Indicates the country or countries that are discussed in a research product.

Elements and Attributes:**code** (Required, String)

The ISO 3166-1 code for the country.

emergingIndicator (Optional, YesNoEnum)

Indicates whether the publisher defines this country as an emerging market.

coverageAction (Optional, CoverageEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing coverage status of a country. Example: a publisher initiates coverage of country A.

weightingAction (Optional, WeightingEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing the weighting of the country. Example: a publisher maintaining an overweight position of country A compared with a particular index.

sequence (Optional, Integer)

If there are multiple Countries, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Country.

**primaryIndicator** (Required, YesNoEnum)

Indicates the primary country or countries discussed in the research product. If the product is focused on the Country level (i.e. the ProductFocus tag is set to Country), then at least one Country must be marked as primary. Otherwise primaryIndicator is optional.

Discipline

Describes the high level content classification of a research product based on its intellectual and analytical approach.

Elements and Attributes:**disciplineType** (Required, DisciplineTypeEnum)

Indicates the high level discipline of the research product. Values are Investment, Strategy or Economics.

researchApproach (Optional, ResearchApproachEnum)

Indicates the analytical technique used to create the content of the research product. Values are Fundamental, Quantitative or Technical. Required when disciplineType is Strategy or Investment.

IntendedAudience

Indicates the audience that the author intended to address with the product.

Elements and Attributes:**sequence** (Optional, Integer)

If there are multiple Intended Audiences, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each IntendedAudience.

primaryIndicator (Required, YesNoEnum)

If necessary, indicates which IntendedAudience is the primary audience intended for the product.

audienceType (Required, AudienceTypeEnum)

Indicates the audience type that the author intended to address with the product.

publisherDefinedValue (Optional, String)

Used to indicate the IntendedAudience if the Audience type is not RIXML specified.

Issuer

Describes the Issuer of a security.

**Elements and Attributes:**

issuerType (Required, IssuerTypeEnum)

Indicates the type of Issuer. Can be agency, government, corporate or exchange.

Description (Optional, String)

A text description (name) of the Issuer. Strongly Recommended element.

domicileCountryCode (Optional, String)

Indicates the country where the Issuer is domiciled, represented by the ISO 3166-1 country code.

fiscalYearEnd (Optional, TimeInstant)

Combination of Day and Month that indicates the fiscal year end of the Issuer.

LogoURL (Optional, UriReference)

Indicates the URL where the Issuer's logo may be found.

coverageAction (Optional, CoverageEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing coverage status of an Issuer. Example: a publisher initiates coverage of Company XYZ.

recommendationAction (Optional, RecommendationEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing their recommendation on an Issuer. Example: a publisher downgrades Company XYZ.

sequence (Optional, Integer)

If there are multiple Issuers, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Issuer.

primaryIndicator (Required, YesNoEnum)

Indicates the primary Issuer(s) discussed in the research product. If the product is focused at the Issuer level (i.e. the ProductFocus tag is set to Issuer), then at least one Issuer must be marked as primary. Otherwise primaryIndicator is optional.

**Aggregations:**

PublisherRecommendation (Optional, Multiples Allowed)

IssuerID (Optional, Multiples Allowed)

IssuerName (Required, Multiples Allowed)

FinancialDates (Optional)

IssuerFinancials (Optional, Multiples Allowed)

SectorIndustry (Optional, Multiples Allowed)

SecurityDetails (Optional)

KeywordClassifications

KeywordClassifications grouping Element that groups or bounds multiple keyword elements.

Aggregations:

Keyword (Required, Multiples Allowed)

MarketIndex

Indicates an index mentioned in the product.

Elements and Attributes:

name (Optional, String)

The free text name of the index.

ProductCategory

Describes the manner or format that information is presented within the product. Product categories include Comment, Report, Model, Chart, etc.

Elements and Attributes:

productCategory (Required, ProductCategoryEnum)

The category that the product fits into.

publisherDefinedValue (Optional, String)

If ProductCategory.Value = PublisherDefined, then the publisher can indicate what type of product this is.

ProductFocus

Indicates the primary focus of the product. This tag is used in conjunction with the primaryIndicator fields in SectorIndustry, Discipline, Issuer, Region, Country, AssetClass, AssetType, SecurityType, Index to indicate the primary topic of the product.



EXAMPLE 1: a report that is an overview of French securities, with a few brief comments about the household durables and insurance industries would have

ProductFocus.focus = Country

ProductFocus.primaryIndicator = Yes

Context.Country.countryCode = FR

Context.Country.countryName = France

Context.Country.primaryIndicator = Yes

Because the product only briefly mentions the household durables and insurance industries, these would both have the Context.sectorIndustry.primaryIndicator set to No. If other countries are mentioned, these additional Context.Country.countryCodes can be listed, with the respective primaryIndicator set to No.

EXAMPLE 2: a company report on a bank that briefly discusses how changes in the banking industry may affect aspects of the real estate industry, would have

ProductFocus.focus = Issuer

ProductFocus.primaryIndicator = Yes

Context.SectorIndustry.sectorIndustryCode = 4010

Context.SectorIndustry.Name = Banks

Context.SectorIndustry.primaryIndicator = Yes

Context.SectorIndustry.sectorIndustryCode = 4040

Context.SectorIndustry.Name = Real Estate

Context.SectorIndustry.primaryIndicator = No.

Elements and Attributes:

focus (Required, FocusEnum)

Focus indicates whether the product discusses any of certain attributes (such as SectorIndustry, Issuer, Country, etc.). A report primarily about one company would have a focus of Issuer, while a country overview would have a focus of Country.

primaryIndicator (Required, YesNoEnum)

Used to indicate which of various focus attributes in the product is the primary topic of the product.

ProductSeries

Used for publications issued as a series / periodical.

Elements and Attributes:

SeriesName (Required, String)

Indicates the name of the publication series. The series name should appear in the same way for all items in the series.



volume (Optional, String)

Volume number.

number (Optional, String)

Publication number in a volume.

Aggregations:

Periodicity (Optional)

Region

Indicates a region discussed in the product.

Elements and Attributes:

emergingIndicator (Optional, YesNoEnum)

Indicates whether this Region is defined by the publisher as an emerging market.

coverageAction (Optional, CoverageEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing coverage status of a Region. Example: a publisher initiates coverage of the Latin American region.

weightingAction (Optional, WeightingEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing the weighting of the region. Example: a publisher recommends maintaining an overweight position of region A compared with a particular index.

sequence (Optional, Integer)

If there are multiple Regions, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Region.

primaryIndicator (Required, YesNoEnum)

Indicates the primary Region(s) discussed in the product. If the product is focused on the Region level (i.e. the ProductFocus tag is set to Region), then at least one Region must be marked as primary. Otherwise primaryIndicator is optional.

regionType (Required, RegionTypeEnum)

publisherDefinedValue (Optional, String)

Subject

Indicates the subject of the product. There is a standard set of subjects defined by RIXML including market opening comments, accounting and tax policy, and earnings surprise. If these do not fully represent the subject, the publisher may use a publisher defined Subject value.

**Elements and Attributes:**

subjectValue (Required, SubjectEnum)

The main topic covered in the product.

publisherDefinedValue (Optional, String)

If the Subject.Value = PublisherDefined, then the publisher can indicate a subject not in the SubjectEnum list.

IssuerFinancials

Financial data related to the issuer of a security.

Elements and Attributes:

issuerFinancialQualifier (Optional, IssuerFinancialQualifierEnum)

Indicates whether the reported numbers are primary, diluted, restated, adjusted or pro-forma.

issuerFinancialsType (Required, IssuerFinancialsTypeEnum)

Used to indicate what type of financial metrics are being represented here.

publisherDefinedValue (Optional, String)

Currency (Optional, String)

Indicates the currency of the issuer financials. Represented by the three letter alpha code defined by ISO 4217.

yearType (Optional, YearTypeEnum)

Indicates whether the year specified is a fiscal year or calendar year

priorCurrent (Optional, PriorCurrentTypeEnum)

Indicates whether the financials are current or prior. Defaulted to currentPrior is used to indicate what the prior figure was for the period specified in order to give context to the current figure, not to provide the figure for a prior time period.

Source (Optional, String)

Free-text tag to indicate the source of the numbers. Example: the name of the company that provides the consensus figures.

Aggregations:

FinancialValue (Required, Multiples Allowed)

IssuerID

Used to uniquely identify the issuer.

**Elements and Attributes:****idType** (Required, IssuerIDTypeEnum)

Indicates the organization or company's protocol used for the issuer identifier (i.e. the Issuer classification scheme). Note that since there is no universally accepted means of identifying an Issuer (as opposed to a specific security), IssuerID allows the use of what are technically security identifiers as a means of identifying an Issuer (CUSIP, SEDOL, etc).

publisherDefinedValue (Optional, String)

If the IssuerID.idType = PublisherDefined, then the publisher can indicate what type of identifier has been used.

idValue (Required, String)

The actual identifier for this issuer.

IssuerName

This is the name of the issuer related to the IssuerID.idValue.

Elements and Attributes:**nameType** (Required, IssuerNameTypeEnum)

An issuer can have multiple names. The names can be one or more of the following types: legal, local, display, parent, trading. Use Display if using only one nameType, unless one of the other nameTypes is preferred.

PublisherDefinedValue (Optional, String)

If the IssuerName.NameType = PublisherDefined, then the publisher can indicate what type of name has been used.

NameValue (Required, String)

The name that is associated with the IssuerID.idValue above.

Keyword

Free-text keywords relevant to the product, which the consumers may want to search on. There is no maximum length, but should only be populated with terms that would help users locate relevant research products. These keywords, like all other metadata, will be in the language of the Product.Language.

Periodicity

Indicates the frequency with which the publication is published.

Elements and Attributes:**periodicityValue** (Required, PeriodicityEnum)

This is the frequency with which this product is published.

**publisherDefinedValue** (Optional, String)

If Periodicity.Value = PublisherDefined, then the publisher can indicate a frequency not in the PeriodicityEnum list.

SecurityDetails

This is the container class for all the tags available for use when describing an Security.

Aggregations:

Security (Required, Multiples Allowed)

Security

Information about a particular security that describes the type of security and how to identify it. A security is always issued by an issuer, therefore, if a security is being mentioned, it must be attached to an Issuer element.

Elements and Attributes:

SecurityName (Optional, String)

The name of the Security.

SecurityShortName (Optional, String)

Optional short name commonly used to identify the Security.

coverageAction (Optional, CoverageEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing the coverage status of a Security. Example: a publisher initiates coverage of Security ABC.

targetPriceAction (Optional, TargetPriceEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing their target price estimate for a Security. Example: a publisher increases a target price for Security ABC to \$100.

recommendationAction (Optional, RecommendationEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing their recommendation on a Security. Example: a publisher downgrades Security ABC.

estimateAction (Optional, EstimateEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing their earnings estimates for a Security. Example: a publisher lowers all their earnings estimates for Security ABC.

**sequence** (Optional, Integer)

If there are multiple Securities, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Security.

primaryIndicator (Required, YesNoEnum)

Indicates the primary Security or Securities discussed in the research product. If the product is focused at the Security level (i.e. the ProductFocus tag is set to Security), then at least one Security must be marked as primary. Otherwise primaryIndicator is optional.

Aggregations:**SecurityID** (Required, Multiples Allowed)**SecurityFinancials** (Optional, Multiples Allowed)**SecurityType** (Optional)**AssetType** (Required)**AssetClass** (Required)**PublisherRecommendation** (Optional, Multiples Allowed)**FinancialDates** (Optional)**SectorIndustry** (Optional, Multiples Allowed)**AssetClass**

When attached to a Context element, indicates the asset class that the research product focuses on. When attached to a Security element, indicates the asset class of the security. Typically used in conjunction with AssetType and SecurityType. One of the following: equity, fixed income, commodity or currency.

Elements and Attributes:**assetClass** (Required, AssetClassEnum)

Indicates the asset class.

weightingAction (Optional, WeightingEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing the weighting of the asset class. Example: a publisher recommends maintaining an overweight position of asset a compared with a particular index.

AssetType

Indicates the asset type. Typically used in conjunction with AssetClass and SecurityType. Can be attached to a Context element or to a Security element. Example values include stock, convertible, high yield credit, investment grade credit, etc.

**Elements and Attributes:**

assetType (Required, AssetTypeEnum)

Indicates the asset type.

publisherDefinedValue (Optional, String)

Used when AssetType.Value = PublisherDefined to indicate a type of asset not in the AssetTypeEnum list.

FinancialDates

Relevant dates related to Issuer and/or Security financial data.

Elements and Attributes:

lastReportedPeriod (Optional, PeriodEnum)

Used together with lastReportedYear to indicate the period when the financials were last reported. For example, Q1 2000.

lastReportedYear (Optional, Integer)

Used together with lastReportedPeriod to indicate the period when the financials were last reported. For example, Q1 2000.

reportingDate (Optional, TimelInstant)

Represents the date the numbers were actually published. Expressed using ISO 8601 (as refined by the World Wide Web Consortium's note <http://www.w3.org/TR/NOTE-datetime>).

PublisherRecommendation

This is information regarding recommendations made by the publisher. Recommendations can be about the issuer of a security or a security itself.

Elements and Attributes:

rixmlRecommendation (Required, RIXMLRecommendationTypeEnum)

RIXMLRecommendation is NOT an official publisher recommendation. RIXMLRecommendation is a mapping of the recommendation value provided in publisherDefinedRecommendation to a standard, RIXML-defined rating.

It is provided to facilitate filtering that is already being done by the buy-side firms. This mapping is a "best guess" effort and should not be construed as a complete and/or accurate representation of what is intended by the publisher.

The values also do not represent a common definition across all publishers. Therefore, consumer firms will need to view the report details to understand what each publisher means when a specific RIXML rating is assigned. However, the publishers will use best efforts to provide continuity in providing consistent mapping.

**PublisherDefinedRecommendation** (Optional, String)

This is the actual recommendation published by the publisher. The recommendation system is defined by the publisher and will vary across publishers.

Description (Optional, String)

A description of the PublisherDefinedRecommendation. May include time horizon.

priorCurrent (Required, PriorCurrentTypeEnum)

Used to indicate whether the recommendation is current or prior (current is the default). Prior is only used to give reference for a change from a prior recommendation. Prior is used to indicate what the prior figure was for the period specified in order to give context to the current figure, not to provide the figure for a prior time period.

SectorIndustry

The sector or industry classification to which a security belongs, or about which the research product is written.

GICS has been accepted as the official RIXML sector / industry classification scheme . Publishers are required to use this classification scheme to provide the correct GICS sector / industry for a research product. This gives consumers a standardized means of determining the sector / industry that a research product is written about.

The GICS sector / industry classification must be provided for each primary security mentioned in the product. Should the product be focused on the sector / industry level, publishers must provide the GICS sector / industry classification that most closely matches what the product is written about.

Publishers are also able to provide publisher defined sector / industry tags, giving them the flexibility to tag their research using their own industry classification scheme. However, should they do so, they must also provide the closest match from the GICS scheme to ensure consistency on the consumption side.

Elements and Attributes:**code** (Required, String)

Identifies the sector under consideration. Refer to the RIXML sector-industry code document for a valid list of RIXML-defined codes. Publisher defined codes can be used in addition to, but not instead of, the RIXML-defined codes.

Name (Required, String)

Indicates the name of the sector.

Description (Optional, String)

A textual description of the sector.

**level** (Required, String)

Since sectors are organized in a hierarchical fashion, the level element indicates the level that a specific SectorIndustry element is at in this hierarchy. There are four levels within the GICS classification scheme, with level 1 referring to Sectors, level 2 to Industry Groups, level 3 to Industries and level 4 to Sub Industries.

ShortName (Optional, String)

A short name for the sector. Example: Pharma may be used for Major Pharmaceuticals.

classificationType (Required, SectorIndustryClassificationTypeEnum)

Name of the classification method used. Options are GICS or PublisherDefined.

coverageAction (Optional, CoverageEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing coverage status of a SectorIndustry. Example: a publisher initiates coverage of the Entertainment sector.

weightingAction (Optional, WeightingEnum)

Highlights an action taken by the publisher. Indicates that the publisher is changing the weighting of the SectorIndustry. Example: a publisher recommends having an overweight position in the Energy sector, and an underweight position in the Technology sector.

sequence (Optional, Integer)

If there are multiple Sectors and/or Industries, and they should appear in a certain order when the content is published, indicate the desired order by associating the appropriate sequence number to each Sector or Industry.

focusLevel (Required, YesNoEnum)

Indicates whether the current level is the main focus of the product being published. This tag is used in conjunction with the ProductFocus tag to determine the focus of a product. Example: a product focusing on the Entertainment sub-industry, would have the ProductFocus.focus tag set to SectorIndustry, and in the correct SectorIndustry element the following values would be set:

SectorIndustry.classificationType = GICS

SectorIndustry.level = 4

SectorIndustry.focusLevel = Yes

SectorIndustry.primaryIndicator = Yes

SectorIndustry.name = Entertainment.

This allows a consumer to determine the exact focus of the product.

**primaryIndicator** (Required, YesNoEnum)

Indicates the primary SectorIndustry or SectorIndustries discussed in the product. If the product is focused on the SectorIndustry level (i.e. the ProductFocus tag is set to SectorIndustry), then at least one SectorIndustry must be marked as primary. Otherwise primaryIndicator is optional.

officiallyClassified (Optional, YesNoEnum)

Indicates whether the specified SectorIndustry is an official classification. Specifically, if the classificationType is "GICS", then this value must be supplied and set to "Yes" to indicate a mapping that complies with the official GICS classification. Likewise, this value must be supplied and set to "No" if the related Issuer or Security is mapped only on a best-guess basis and is not part of the official GICS classification. If this optional attribute is not supplied and the classificationType is "GICS", the consumer should assume a value of "No".

Aggregations:**SectorIndustry** (Optional, Multiples Allowed)**SecurityFinancials**

Describes the financials associated with a security.

Example: If the SecurityFinancialsType is EPS and the scenario is EPS period = Q1 value = 10 cents, year = 2000, no duration, no datetime, then this is how the XML would look :

```
<![CDATA[...
<SecurityFinancials SecurityFinancialQualifier="Primary" Currency="USD"
PriorCurrent="Current" >
<SecurityFinancialsType>
  <value>EPS</value>
</SecurityFinancialsType>
<FinancialValue EstimateActual="Estimate" Period="Q1" PeriodEnd="September"
PeriodYear="2000">10 cents</FinancialValue>
</SecurityFinancials>
...]]>
```

Elements and Attributes:**securityFinancialQualifier** (Optional, SecurityFinancialQualifierEnum)

Indicates whether the financials are primary, diluted, restated, adjusted or pro-forma

securityFinancialsType (Required, SecurityFinancialsTypeEnum)

Used to indicate what type of financial metrics are being represented here.

**publisherDefinedValue** (Optional, String)

Actual value as provided by the Publisher.

Currency (Optional, String)

Indicates the currency of the security financials. Represented by the three letter alpha code defined by ISO 4217.

yearType (Optional, YearTypeEnum)

Indicates whether the year specified is a fiscal year or calendar year

priorCurrent (Optional, PriorCurrentTypeEnum)

Indicates whether the financials are current or prior. Defaulted to current. Prior is used to indicate what the prior figure was for the period specified in order to give context to the current figure, not to provide the figure for a prior time period.

Source (Optional, String)

Free-text tag to indicate the source of the numbers. Example: the name of the company that provides the consensus figures.

Aggregations:**FinancialValue** (Required, Multiples Allowed)**SecurityID**

Used to uniquely identify the security

Elements and Attributes:**idType** (Required, SecurityIDTypeEnum)

Indicates the organization or company's protocol used for the security identifier (i.e. the Security classification scheme). Examples include CUSIP, RIC, BloombergCode, etc.

publisherDefinedValue (Optional, String)

If the SecurityIDType.idType = PublisherDefined, then the publisher can indicate a type of security identifier not in the SecurityIDTypeEnum list.

idValue (Required, String)

The actual unique identifier for this security. Example: MSFT.O is correct idValue for Microsoft Common Shares using the Reuters RIC scheme.

tradingCountryCode (Optional, String)

The ISO 3166-1 Country code for the country in which the exchange operates.

TradingExchange (Optional, String)

Exchange on which the security is traded.



SecurityType

Indicates the type of security. Typically used in conjunction with AssetClass and AssetType. Can be attached to a Context element or to a Security element. Example values include stock, convertible, high yield credit, investment grade credit.

Elements and Attributes:

securityType (Required, SecurityTypeEnum)

Indicates the security type.

publisherDefinedValue (Optional, String)

Used when SecurityType.Value = PublisherDefined to indicate a type of security not in the SecurityTypeEnum list.

FinancialValue

Stores a specific financial data item for an issuer or a security.

Elements and Attributes:

estimateActual (Required, EstimateActualEnum)

Indicates whether a financial figure is actual or estimated.

period (Optional, PeriodEnum)

Used together with periodYear and periodEnd to indicate the applicable period for a financial value. Example: Q4 2000 ending 31 December.

periodEnd (Optional, TimeInstant)

Used together with period and periodYear to indicate the applicable period for a financial value. Example: Q4 2000 ending 31 December.

periodYear (Optional, Integer)

The four-digit year used together with period and periodEnd to indicate the applicable period for a financial value. Example: Q4 2000 ending 31 December.

duration (Optional, TimePeriod)

Time duration that is being addressed.

dateTime (Optional, TimeInstant)

Exact date and time applicable to a financial data item, expressed using ISO 8601 (as refined by the World Wide Web Consortium's note <http://www.w3.org/TR/NOTE-datetime>). Generally dateTime is used instead of period, periodYear and periodEnd when a specific date can be assigned to a financial data item, for example, Total Assets as of 31 January 2000.

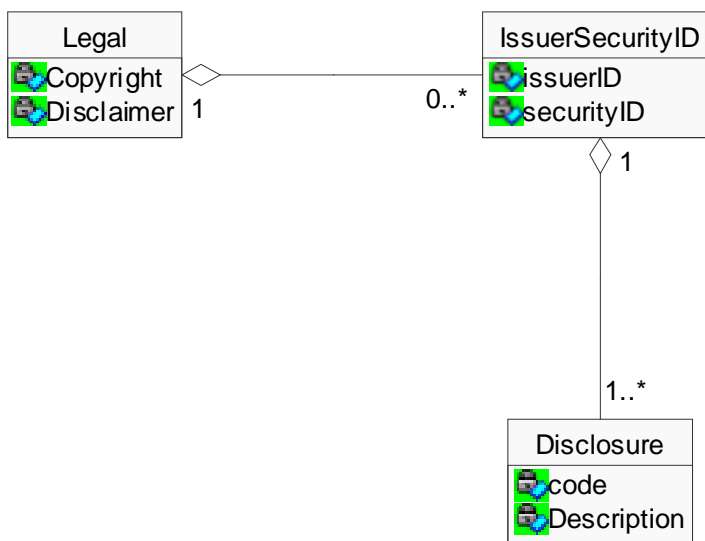


Legal Details

The Legal section deals with legal information that is required to accompany a research product.

Class Diagram: Legal Details

Legal Package



Legal

The top-level element of the Legal section.

Elements and Attributes:

Copyright (Optional, String)

Copyright information relating to the product.

Disclaimer (Optional, String)

Disclaimers that accompany the research product.

**Aggregations:**

IssuerSecurityID (Optional, Multiples Allowed)

IssuerSecurityID

Links disclaimer information to specific issuers and securities. This allows consumers to determine the nature of disclosures and to which issuers and/or securities they apply.

Elements and Attributes:

issuerID (Optional, String)

An IssuerID that also appears elsewhere in the metadata of the product, enabling the consumer to uniquely identify the issuer that is being referred to.

securityID (Optional, String)

A SecurityID that also appears elsewhere in the metadata of the product, enabling the consumer to uniquely identify the security that is being referred to.

Aggregations:

Disclosure (Required, Multiples Allowed)

Disclosure

Disclosure information from the publisher that is required to accompany a research product.

Elements and Attributes:

code (Optional, String)

Indicates the publisher defined disclosure code for a specific disclosure. For example, a publisher may need to disclose a banking relationship with a company, and may call this disclosure code A.

Description (Required, String)

A description of the disclosure.



Utilities

Any utilities that will be useful in various places in the RIXML document

Length

Indicates the length of the product. For example, if the product were a PDF file, the length would be in pages.

Elements and Attributes:

lengthUnit (Required, LengthUnitEnum)

Indicates the unit of length. For example pages, seconds, minutes.



Enumerations

Listing of all the enumerated values.

AssetClassEnum

Defines the highest level of asset classification.

Enumeration Values:

Equity

Stocks and other non-debt securities.

FixedIncome

Debt-based assets.

Currency

Monetary currency equivalents.

Commodity

Usually pertains to an article of trade or commerce that can be transported. Among the numerous commodities that are traded, examples are: gold, cotton and orange juice.

AssetTypeEnum

Defines the type of security named in the Security primaryIdentifier field.

Enumeration Values:

Stock

Equity security.

Convertible

Corporate securities (usually preferred shares or bonds) those are exchangeable for a set number of another form (usually common shares) at a pre-stated price.

HighYieldCredit

Bond that has a rating of BB or lower and that pays a higher yield to compensate for its greater risk.

InvestmentGradeCredit

Bond with a rating of AAA to BBB.

AgencyCredit

Bonds issued by US government agencies.

**MoneyMarketCredit**

Certificates of deposit, Eurodollar certificates of deposit, commercial paper, banker's acceptances, treasury bills, and discount notes from FHLB, FNMA, and Fed .Farm Credit System, among others.

SupranationalCredit

Bonds issued by institutions that are usually above the jurisdiction of any one sovereign state, and thus are not subject to national banking regulations or supervised by any regulatory authority. The aim of the institutions is to foster economic development through financing projects and providing advisory services. Examples of Supranationals are: African Development Bank (AFDB), Asian Development Bank (ADB), Corporation Andina de Fomento (CAF), Council of Europe Development Bank (COE), EUROFIMA, European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Inter-American Development Bank (IADB), International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), Nordic Investment Bank (NIB), European Community (EC), European Coal and Steel Community, EURATOM and European Central Bank.

SovereignCredit

Bonds issued by any "high level" self-governing, independent state. Normally used in the fixed income markets to delineate security issuance by countries and provinces.

AssetBackedCredit

Bonds backed by loan paper or accounts receivable originated by banks, credit card companies, or other providers of credit and often "enhanced" by a bank Letter of Credit.

MortgageBackedCredit

Bonds backed by mortgages.

CommercialMortgageBackedCredit

Bonds backed by commercial mortgages.

GovernmentCredit

Bonds usually issued by the largest developed countries or economic blocks, such as US, Japan, Germany, France, UK, Italy, EU, etc. Examples of US government debt instruments are: Treasury bonds, bills, notes and savings bonds.

MunicipalCredit

Debt obligation of a state or local government entity.

Derivatives

Financial instrument whose value is based on another security, such as an option.

**FinancialFutures**

Futures contract based on a "cash" financial instrument.

BondFunds

Mutual fund that invests primarily in fixed income securities. (can be open-ended or closed-ended).

EquityFunds

Mutual fund that invests primarily in equity securities. (can be open-ended or closed-ended).

MoneyMarketFunds

Mutual fund that invests primarily in money market securities. (can be open-ended or closed-ended).

CountryFunds

Mutual fund that invests primarily in securities issued within one particular country. (Usually closed-ended).

CurrencyCash

Commercial contracts on future delivery of a specified quantity of a particular foreign currency. Delivery of the currency is usually carried out at the end of the contract term.

CurrencyDerivatives

Commercial contracts on future delivery of a specified quantity of a particular foreign currency. Delivery of the currency is usually NOT carried out at the end of the contract term.

CurrencyFutures

Futures are contracts to make or accept delivery of a given currency on a given date at a prearranged price.

CollateralizedDebtObligations

Securities based upon debt secured by collateral.

BalancedFunds

Balanced funds.

CommodityFunds

Mutual fund that invests primarily in commodities. (these are usually closed-ended).

PublisherDefined

An enumeration value that is not provided by RIXML.



AudienceTypeEnum

Enumeration Values:

Institutional

Mutual funds, banks, insurance companies, pension funds, or other organizations that trade large volumes of securities.

PrivateClient

High-net-worth Individuals investing their own or their family's funds, and not the funds of a company.

Corporate

Corporations not in the business of managing other people's assets.

Government

Self-governing, independent state.

Educational

Institution whose main purpose is higher learning.

Retail

General public that may be interested in products offered by the publisher.

Press

Journalists that are usually employed by a media organization. Information tagged in this manner will usually be distributed to the general public.

Prospect

Potential customer to one of the publisher's lines of business.

Trading

Trading personnel at publisher's organization.

SalesForce

Sales personnel at publisher's organization.

PublisherDefined

An enumeration value that is not provided by RIXML.

ContactTypeEnum

Enumeration Values:

Personal

Contact's non-business data.

**Business**

Contact's business data.

PublisherDefined

An enumeration value that is not provided by RIXML.

CoverageEnum**Enumeration Values:**

Initiate

Suspend

Drop

DisciplineTypeEnum**Enumeration Values:**

Investment

Content that has been generated using a systematic, detailed examination of a particular topic. A very focused and detailed viewpoint or advice on a topic that is normally based on specific facts. (Bottom-up approach).

Strategy

Content published with a viewpoint that is primarily derived using the science of strategy. A high level viewpoint or advice on a particular subject (Top-down approach).

Economics

Content published with a viewpoint that is primarily derived using economic science.

EstimateActualEnum**Enumeration Values:**

Actual

Historical, publicly disseminated figures.

Estimate

Proprietary, calculated figures provided by the publisher.

Consensus

Figures based upon the consensus of the market.

**EstimateEnum*****Enumeration Values:*****Revision****Upgrade****Reiterate****Downgrade****FocusEnum*****Enumeration Values:*****SectorIndustry**

The focus of the report is a sector or industry, not the individual securities mentioned in the report.

Discipline

The focus of the report is a discipline.

Issuer

The focus of the report is an issuer.

Region

The focus of the report is a region, not individual countries.

Country

The focus of the report is a country.

AssetClass

The focus of the report is an asset class.

AssetType

The focus of the report is an asset type.

SecurityType

The focus of the report is a particular security type.

MarketIndex

The focus of the report is an index.



IssuerFinancialQualifierEnum

Enumeration Values:

Adjusted

Financial figures that have been modified to reflect material financial events for the issuer (company).

Restated

To state in a new form a company's financial statements, perhaps to reflect a current period item back through prior periods.

ProForma

Financial statement where certain amounts are hypothetical, for example showing debt issue that has been proposed but has not yet been approved.

IssuerFinancialsTypeEnum

Enumeration Values:

Revenue

Total amount collected for goods and services provided.

Earnings

Revenues less cost of sales, operating expenses, and taxes, over a given period of time.

MarketCap

The market price of a public corporation, calculated by multiplying the number of shares outstanding by the price per share.

AfterTaxCashFlow

A measure of a company's financial health. Equals cash receipts less cash payments over a given period of time; or equivalently, net profit plus amounts charged off for depreciation, depletion and amortization.

EBITDA

Net income + depreciation + amortization.

NetOperatingIncome

A measure of a company's earning power from ongoing operations, equal to earnings before deduction of interest payments and income taxes.

ReturnOnEquity

A measure of how well a company used reinvested earnings to generate additional earnings, equal to a fiscal year's after-tax income (after preferred stock dividends but before common stock dividends) divided by book value. Expressed as a percentage.

**PublisherDefined**

An enumeration value that is not provided by RIXML.

IssuerIDTypeEnum**Enumeration Values:****CINS**

Every North-American international equity and debt instrument is assigned a Cusip Int'l Number by Standard and Poor's and Telekurs. The CINS uses the same construction as the CUSIP with the addition of a country indicator. The first position of a CINS code is always an alpha character, indicating the Issuer's country code or geographic location.

CUSIP

A CUSIP is an 8 or 9-digit alphanumeric string that identifies an issuer and its financial instrument (Issue). CUSIPS are created by Standard and Poor's Cusip Bureau. They are issued for all U.S. and Canadian securities, and should NOT be considered a valid universal identifier.

SEDOL

Stock Exchange Daily Official List. British Securities identification code. Has built in check digit system.

PublisherDefined

An enumeration value that is not provided by RIXML.

IssuerNameTypeEnum**Enumeration Values:****Legal**

The legal name of an organization.

Local

The local name of an organization.

Display

The name that is commonly associated with the company.

Trading

The trading name of the company.

Parent

The name of the parent company, which may aid in searching and sorting of information.



IssuerTypeEnum

Enumeration Values:

Agency

An individual or company acting as intermediary pairing up buyers and sellers, taking no financial risk, and charging a commission for the service.

Municipality

Sovereign

Corporate

The most common form of business organization, and one that is chartered by a state and given many legal rights as an entity separate from its owners.

MutualFund

An open-ended fund operated by an investment company which raises money from shareholders and invests in a group of assets, in accordance with a stated set of objectives.

REIT

Real estate investment trust. A corporation or trust that uses the pooled capital of many investors to purchase and manage income property (equity REIT) and/or mortgage loans (mortgage REIT); often publicly held.

Exchange

Any organization, association or group, which provides or maintains a marketplace where securities, options, futures, or commodities can be traded; or the marketplace itself.

LengthUnitEnum

Enumeration Values:

Pages

TimeUnit

In the following format - Hours:Minutes:Seconds.

PeriodEnum

Enumeration Values:

Q1

First quarter of the company's fiscal year.

Q2

Second quarter of the company's fiscal year.



Q3

Third quarter of the company's fiscal year.

Q4

Fourth quarter of the company's fiscal year.

H1

First half of the company's fiscal year.

H2

Second half of the company's fiscal year.

T1

First trimester of the company's fiscal year.

T2

Second trimester of the company's fiscal year.

T3

Third trimester of the company's fiscal year.

Annual

Data for the full fiscal year.

Stub

Reflects a partial year in the event of fiscal year changes.



PeriodicityEnum

Enumeration Values:

Hourly

IntraDay

Daily

Weekly

BiWeekly

Monthly

Quarterly

SemiAnnually

Annually

PublisherDefined

PhoneTypeEnum

Enumeration Values:

Fax

Facsimile number.

Phone

Office telephone number.

Mobile

Mobile/cellular phone number.

Pager

Pager number.

PriorCurrentTypeEnum

Enumeration Values:

Current

Denotes a financial estimate or datum currently in effect with the publication of the present product.

Prior

Denotes a financial estimate or datum in effect prior to the publication of the present product.



ProductCategoryEnum

Enumeration Values:

Comment

Comments usually have very short shelf life, and are often created in response to events taking place within the previous 24 hours.

Report

A narrative form that is more in-depth than a Comment, with a perceived longer shelf life. Can be any media type.

Model

A mathematical model used for analysis.

Charts

Graphs and other pictorial representations of data.

Compilation

Content that combines the work of many analysts, multiple disciplines, and/or multiple product types, and that is not easily classified in any of the other product categories.

Presentation

Content originally designed for (or in the format of) a presentation to an audience - usually in "slide" format, with abbreviated bullet points as opposed to a full text narrative.

Event

Meeting notification.

Primer

Overview or introduction to a subject or methodology.

Directory

An alphabetical or classified listing of analysts, departments, etc. with relevant information (phone number, email, companies covered, etc.).

PublisherDefined

For use with products that cannot fit into any of the RIXML categories.

ProductRelationshipTypeEnum

Enumeration Values:

PartOf

A product is part of another product.



References

A product references another product.

BasedOn

A product's content is based on another product.

Requires

A product requires another product in order to make sense. For example, a chart may not make any sense without the accompanying text.

PublisherNameTypeEnum

Enumeration Values:

Legal

The legal name of an organization.

Local

The local name of an organization.

Display

The name that is commonly associated with the company.

Parent

The name of the parent company, which may aid in searching and sorting of information.

RIXMLRecommendationTypeEnum

These mappings are a common structure used to assist consumers in the comparison of recommendations across various publishers. When these values appear in a RIXML document, they should be construed only as a "best-guess" match to a publisher's actual recommendation, which may be time-boxed, index- or currency- referencing, risk-weighted, etc.

Enumeration Values:

0

Explicitly states that there is no recommendation. It is important to note that since `Issuer.PublisherRecommendation` and `Security.PublisherRecommendation` are optional elements, the lack of those tags does not imply that the Publisher has no recommendation available elsewhere; the `RecommendationType` value of 0 is used to state that fact.

1

A value of 1 maps to a "Strong Buy" recommendation.



2

A value of 2 maps to a "Buy" recommendation.

3

A value of 3 maps to a "Hold" recommendation.

4

A value of 4 maps to an "Underperform" recommendation.

5

A value of 5 maps to a "Sell" recommendation.

**RecommendationEnum*****Enumeration Values:*****Upgrade****Reiterate****Downgrade****Initiate****Drop****RegionTypeEnum*****Enumeration Values:*****NorthAmerica****LatinAmerica****WesternEurope****EuropeanUnion****CEEuropeBalticStatesCIS****Africa****MiddleEast****Asia****Japan****AsiaWithoutJapan****Global****PublisherDefined****ResearchApproachEnum*****Enumeration Values:*****Fundamental**

Analysis of the company considering past records of assets, earnings, sales, products, management, and markets.

Quantitative

Analysis dealing with measurable factors, such as value of assets, cost of capital, historical and projected patterns of sales, costs, and profitability.

**Technical**

Research into the demand and supply for securities and commodities based on trading volume and price studies.

SectorIndustryClassificationTypeEnum**Enumeration Values:****GICS**

The Global Industry Classification Standard, which is the official classification type of the RIXML specification. When this enumeration is used, it is required that the SectorIndustry.officiallyClassified attribute be included and set to "Yes" to indicate an official GICS classification. See the definition of that attribute for more details.

PublisherDefined

A classification that is not provided by RIXML.

SecurityFinancialQualifierEnum**Enumeration Values:****Basic**

Share count before impact assumed from conversions of convertibles, preferred stock or options to stocks.

Primary

Used with earnings per share; denotes inclusion of common stock, stock options, and some convertible debt in the denominator

Diluted

Assumes common shares rise by the amount of common stock required to be issued to convert convertibles, preferred stock or options to stocks using the treasury stock method.

Restated

To state in a new form a company's financial statements, perhaps to reflect a current period item back through prior periods.

Adjusted

Reflects a change to a company's reported financial statements.

ProForma

A hypothetical financial model based on a set of assumptions



SecurityFinancialsTypeEnum

Enumeration Values:

EarningsPerShare

Portion of a company's profit allocated to each outstanding share of common stock.

CashFlowPerShare

Portion of a company's net income plus depreciation and other noncash charges allocated to each outstanding share of common stock.

TargetPrice

Price a security is predicted rise/fall to within a specified period of time.

Price

Price at which a security is trading at the time the report is issued.

SupportPrice

Price level at which a security tends to stop falling because there is more demand than supply.

ResistancePrice

Price ceiling at which a security tends to stop climbing because there is more supply than demand.

PriceToEarningsPerShare

Price/earnings ratio. The price of a stock divided by its EPS.

PriceToBookValuePerShare

The price of a stock divided by its book value per share.

PriceToSales

The price of a stock divided by its sales per share.

BookValuePerShare

Total net assets divided by number of bonds or shares of stock.

GrossYield

DividendYield

The annual rate of return on an investment, expressed as a percentage. For securities, it is the annual dividends divided by the purchase price.

Float

The number of shares of a security that are outstanding and available for trading by the public.

**SharesOutStanding**

Number of shares issued by a company that have not been repurchased by the company.

DividendPerShare

Distribution of earnings to shareholders (per share).

52WeekHigh

The highest price at which a security has traded over the past 52 weeks.

52WeekLow

The lowest price at which a security has traded over the past 52 weeks.

FundsFromOperations**PublisherDefined**

An enumeration value that is not provided by RIXML.

SecurityIDTypeEnum**Enumeration Values:****CUSIP**

A CUSIP is an 8 or 9-digit alphanumeric string that identifies an issuer and its financial instrument (issue). CUSIPS are created by Standard and Poor's Cusip Bureau. They are issued for all U.S. and Canadian securities, and should NOT be considered a valid universal identifier.

SEDOL

Stock Exchange Daily Official List. British Securities identification code. Has built in check digit system.

ISIN

This code consists of 12 characters. The first two characters indicate the country as issued in accordance with the ISO 3166 standard. The next 9 characters indicate the type of security, as designated by the national numbering agency (e.g. CUSIP for US and Canada). Where the national number consists of fewer than 9 characters, zeroes are inserted to utilize all spaces. The final character in the ISIN is a check digit.

Bloomberg

Security identifier assigned by the Bloomberg Company.

RIC

Reuters Identification Code. Used in all Reuters products to identify a particular security. (Issue).

**QUIK**

Security identifier issued by the QUICK Financial Company in Japan.

SAndP

Security identifier issued by the Standard and Poor's Company in the US.

Valoren

Identifier for Swiss securities. No check digit system.

CINS

Every North-American international equity and debt instrument is assigned a Cusip Int'l Number by Standard and Poor's and Telekurs. The CINS uses the same construction as the CUSIP with the addition of a country indicator. The first position of a CINS code is always an alpha character, indicating the Issuer's country code or geographic location.

Sicovam

Identifier for French securities (Issues). Societe Interprofessional Pour La Compensation des Valeurs Mobiliers.

PublisherDefined

An enumeration value that is not provided by RIXML.

SecurityTypeEnum**Enumeration Values:****FixedRateNotes**

Debt instrument with a fixed interest rate.

FloatingRateNotes

Debt instrument with a variable interest rate.

MediumTermNotes

Debt instrument with a Maturity of 2 to 10 years.

CommercialPaper

Short-term debt obligations with maturities ranging from 2 to 270 days.

BankerAcceptances

A short-term credit investment which is created by a non-financial firm and whose payment is guaranteed by a bank.

Deposits

Securities or cash placed with a bank or other institution for safekeeping or investment purposes.

**Repo**

Repurchase agreement. Contract between a seller and buyer, usually Of US govt. securities, whereby the seller agrees to repurchase the securities at an agreed price, generally at a stated time.

Strips

Separated Trading of Registered Interest and Principal of Securities. Bond, usually issued by the U.S. Treasury, whose two components, interest and repayment of principal, are separated and sold individually as zero-coupon bonds.

ConvertiblePreferred

Preferred stock that can be converted into a specified amount of common stock at the holder's option.

ConvertibleStructured

A corporate security that is exchangeable for a set number of another type of corporate security (usu. Common stock) at a predetermined price and which changes in value in relation to an underlying index.

Warrants

A certificate, usually issued along with a bond or preferred stock, entitling the holder to buy a specific amount of securities at a specific price, usually above the current market price, for an extended period, anywhere from a few years to forever.

Swaps

A transaction between two parties consisting of a trading of cash flows with specified time, rate, currency and risk conditions.

Options

Securities transaction agreement providing the right (but not the obligation) to buy or sell a specific amount at a specified price during a specified period of time.

Swaptions

An option on a swap, usually an interest rate swap.

StructuredNotes

A derivative instrument whose value is based on that of an underlying index.

SamuraiNotes

A Yen denominated note, issued in Tokyo by a non-Japanese borrower (Issuer).

YankeeNotes

Dollar-denominated bonds issued in the U.S. by foreign corporations, banks and governments.

**EuroBonds**

A bond issued and traded outside the country in whose currency it is denominated, and outside the regulations of a single country; usually a bond issued by a non-European company for sale in Europe.

EuroDenominatedNotes

Euro Currency-denominated bonds issued by U.S. or foreign corporations, banks and governments.

InflationLinkedBonds

Bonds that have an interest payment flow which is tied to the official inflation rate of a country where the security is issued.

PrivatePlacements144A

Securities sold directly to institutional investors.

ClosedEndFund

Fund with a fixed number of shares, traded on a stock exchange.

OpenEndFund

A mutual fund that makes a continuous offering of its shares and stands ready to buy its shares upon surrender by the shareholders.

Common

Units of equity ownership of a public company, providing voting rights.

Preferred

Stock which provides a specific dividend that is paid before any dividends are paid to common stock holders, and which takes precedence over common stock in the event of liquidation.

ADRGDR

American Depositary Receipt: A negotiable certificate held in a U.S. bank representing a specific number of shares of a foreign stock traded on a U.S. stock exchange. Global Depositary Receipt: A negotiable certificate held in the bank of one country.

Gold

Gold bought or sold through futures contracts on a commodity exchange.

Silver

Silver bought or sold through futures contracts on a commodity exchange.

Steel

Steel bought or sold through futures contracts on a commodity exchange.

**Aluminum**

Aluminum bought or sold through futures contracts on a commodity exchange.

Platinum

Platinum bought or sold through futures contracts on a commodity exchange.

Copper

Copper bought or sold through futures contracts on a commodity exchange.

Soybeans

Soybeans bought or sold through futures contracts on a commodity exchange.

Wheat

Wheat bought or sold through futures contracts on a commodity exchange.

Corn

Corn bought or sold through futures contracts on a commodity exchange.

Coffee

Coffee bought or sold through futures contracts on a commodity exchange.

Cocoa

Cocoa bought or sold through futures contracts on a commodity exchange.

OrangeJuice

Orange juice bought or sold through futures contracts on a commodity exchange.

Cotton

Cotton bought or sold through futures contracts on a commodity exchange.

Sugar

Sugar bought or sold through futures contracts on a commodity exchange.

Livestock

Livestock bought or sold through futures contracts on a commodity exchange.

JetFuel

Jet fuel bought or sold through futures contracts on a commodity exchange.

Gasoline

Gasoline bought or sold through futures contracts on a commodity exchange.

Gas

Natural gas bought or sold through futures contracts on a commodity exchange.

**Crude**

Crude oil bought or sold through futures contracts on a commodity exchange.

Electricity

Electricity bought or sold through futures contracts on a commodity exchange.

Bonds

An interest-bearing or discounted government or corporate security that obligates the issuer to pay the bondholder a specified sum of money.

EuroDollars

An American dollar held by a foreign institution outside the U.S., usually a bank in Europe.

Currency

Contracts in the futures markets that are for delivery in a major currency such as British pounds, Euros, Japanese yen, or US dollars.

PublisherDefined

An enumeration value that is not provided by RIXML.

StatusTypeEnum***Enumeration Values:*****Pending**

Pending approval for release. For internal use only.

Revised

The product is a revision of an existing product.

Recalled

The publication has been recalled by the publisher.

Deleted

The product is to be deleted from the database.

Published

The product is being published for the first time.

Rebroadcast

A product, in an identical form, is being distributed again.

Released

A published product is being released. This may be used when the publication and release time are not the same.

**SubjectEnum*****Enumeration Values:***

AccountingAndTaxPolicy
EarningsReview
EarningsPreview
MorningCall
InitialPublicOfferings
ManagementChange
MergerAcquisitionDivestiture
FiscalPolicy
MonetaryPolicy
EconomicForecast
SecondaryPublicOfferings
Regulations
StockRepurchase
SurveyAnalysisAndResults
Politics
Event
AssetAllocation
GrowthInvestment
ValueInvestment
PublisherDefined

TargetPriceEnum***Enumeration Values:***

Increase
Decrease
Update

WeightingEnum***Enumeration Values:***



Increase

Decrease

Update

YearTypeEnum

Enumeration Values:

Fiscal

The 12 month period during which a business maintains its financial records.

Calendar

The 12 month period from January through December.

YesNoEnum

Enumeration Values:

No

Yes