RIXML Interactions Standard v2.0 Data Dictionary

RIXML Interactions Standard Version 2.0

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Preface

Copyright and incorporation information

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Schema revision history

Date	Version	Comments
03 Sept 2019	2.0	Version 2.0 of RIXML Interactions Standard. Leverages RIXML *Common* and *Datatypes* schema files; improves the method of identifying the number and types of firms involved in an interaction, reorganizes the tags used to identify the firms and individuals involved in an interaction, enhances the ability to connect related interactions, adds the ability to connect related research content, and refines the mechanism to track the status of both the interaction itself and of each participant in the context of the interaction. **Does** break backward-compatibility with 1.0.
01 Nov 2017	1.0	Initial production release of the RIXML Interactions Standard.

Section 1: Introduction

About RIXML.org

RIXML.org is a consortium of buy-side financial services firms, sell-side financial services firms, and technology vendors. The goal of RIXML.org is to define open protocols that streamline workflow both within each organization and between information producers, consumers, and the third-party technology vendors they use. These protocols improve the process of categorizing, aggregating, comparing, sorting, searching, and distributing global financial research, allow service providers, consumers, and interaction report aggregators to comply with the EU's MiFID II reporting requirements, and provide simple mechanisms for updating both roster updates and coverage updates.

The individuals who represent their firms include IT experts, compliance managers, and business-side project managers who represent the analysts, portfolio managers, and others who both produce and consume investment research.

About the RIXML Interactions Standard

The **RIXML Interactions Standard** provides a set of tags and rules that can be used to describe interactions involving research providers, research consumers, corporate representatives, and third-party experts. This standard was created to help firms comply with the European Union's revised Markets in Financial Instruments Directive (MiFID II).

The member firms of RIXML have collaborated with nonmember firms, particularly buy-side firms, to define a set of components, rules, lists, and recommendations that enable clear description of investment interactions. This new standard enables service providers to capture detailed information about each interaction and to provide separate interactions records to each service consumer with information about the event. The standard has been designed to accommodate a range of interaction types, from one-on-one interactions to conference calls to multi-session conferences.

About the RIXML Standards Suite

The RIXML Interactions Standard is part of the RIXML Standards Suite, a set of four standards designed to meet different, yet related, information transfer needs. In addition to the RIXML Interactions Standard:

- The **RIXML Research Standard** provides a set of tags and rules that can be used to describe investment research documents, audio files, etc. Using the RIXML Research standard enables firms to improve the process of categorizing, aggregating, comparing, sorting, searching, and distributing global financial research.
- The **RIXML Roster Updates Standard** enables a research publisher to communicate changes to the groups of people playing various roles on its behalf in the investment research marketplace (such as a financial services firm updating its roster of research analysts with aggregator partners).
- The **RIXML Coverage Updates Standard** gives a publisher the ability to communicate changes to its coverage universe, including updating the list of companies covered by a particular analyst.

All four of these standards are based around a *Common* schema that contains tags and tag sets that are used in more than one of the standards or in more than one place in any of them, along with a *Datatypes* schema that houses all of the enumeration lists used in any of the standards.

RIXML Interactions Standard release packet

This data dictionary is one part of the RIXML Interactions Standard release packet. It provides the full set of tags used in the RIXML Interactions Standard, along with definitions and the object model, formatted in a way that is easier to read than the actual XSD schema files. It also also defines some best practices for implementing the RIXML Interactions Standard. This document is one component of the RIXML Interactions release packet, and is intended to be used in conjunction with the other components of the release.

The RIXML Interactions Standard release packet includes the following components:

- RIXML Interactions Data Dictionary (this document) – human-readable catalog of attributes and elements, with descriptions
- RIXML Interactions schema files:
  - RIXML-Interactions-2_0.xsd
  - RIXML-Common-2_6.xsd
  - RIXML-datatypes-2_6.xsd

Each of these documents is available in the *Technical > Interactions Standard* section of the RIXML.org website. Please check this section of the website to make sure you are using the most up-to-date release packet.

Additionally, although the *RIXML Research Implementation Guide* (available in the Technical > Research Standard section of the website) was created for the RIXML Research Standard, it contains valuable information about our organization, our approach to creating all of our standards, and best practices for implementing them. It will be updated in the future with additional information specific to the Interactions Standard; however, much of the information it currently contains is relevant to the Interactions Standard as well as the Research Standard.

Where can I get more information?

A wealth of additional information can be found on the RIXML.org website, particularly in the *Technical* section.

Additionally, firms that are working to adopt RIXML will find the support of the RIXML.org organization in assisting to answer any questions:

RIXML Program Office
c/o Jordan & Jordan
5 Hanover Square
New York, NY 10004
Phone: 212-655-2945
Email: rixml@jandj.com
Fax: 212-422-8570

How can I provide feedback?

You can provide any feedback or suggestions to rixml@jandj.com.

Section 2: Overview of the RIXML Interactions Standard

What is an Interaction?

For the purpose of the RIXML Interactions Standard, an interaction is an electronic or in-person communication between two or more participant firms (referred to as *organizations* in this standard). These include, but are not limited to, interactions that must be reported to comply with MiFID II regulations.

Who are the participants in an Interaction?

An RIXML Interactions record can include the following types of participants:

- The *interaction provider* is the host of the interaction and generally creates the interaction record. It is often a sell-side firm (broker). Each interaction is required to have an Interaction Provider.
- An *interaction consumer* is a firm for whom the interaction was created; often a buy-side firm.
- A *corporate* participant represents a corporate entity, and is a participant generally because the interaction provider is facilitating contact between the corporate entity and the interaction consumer.
- A *third-party expert* participant is a participant representing a firm other than the Interaction Provider's firm with specialized knowledge of a topic of interest to the Interaction Consumer firm participating in the interaction.

What is an Interaction record?

In order to comply with MiFID II regulations, the *provider* of an interaction is required to provide certain information to each firm that participated as a *consumer* of the interaction. When an interaction involves one consumer firm, the provider can create a single record with all information about the interaction. However, some interactions involve more than one consumer firm. For example, a conference may be attended by several interaction consumer firms; a blast voicemail may involve dozens of interaction consumer firms. In these cases, each consumer firm needs to obtain the details about the time, place, and topic of the interaction, about the participants from the provider firm and any corporate or expert participants, and about the participants from their own firm. However, they cannot be provided with information about participants from other consumer firms.

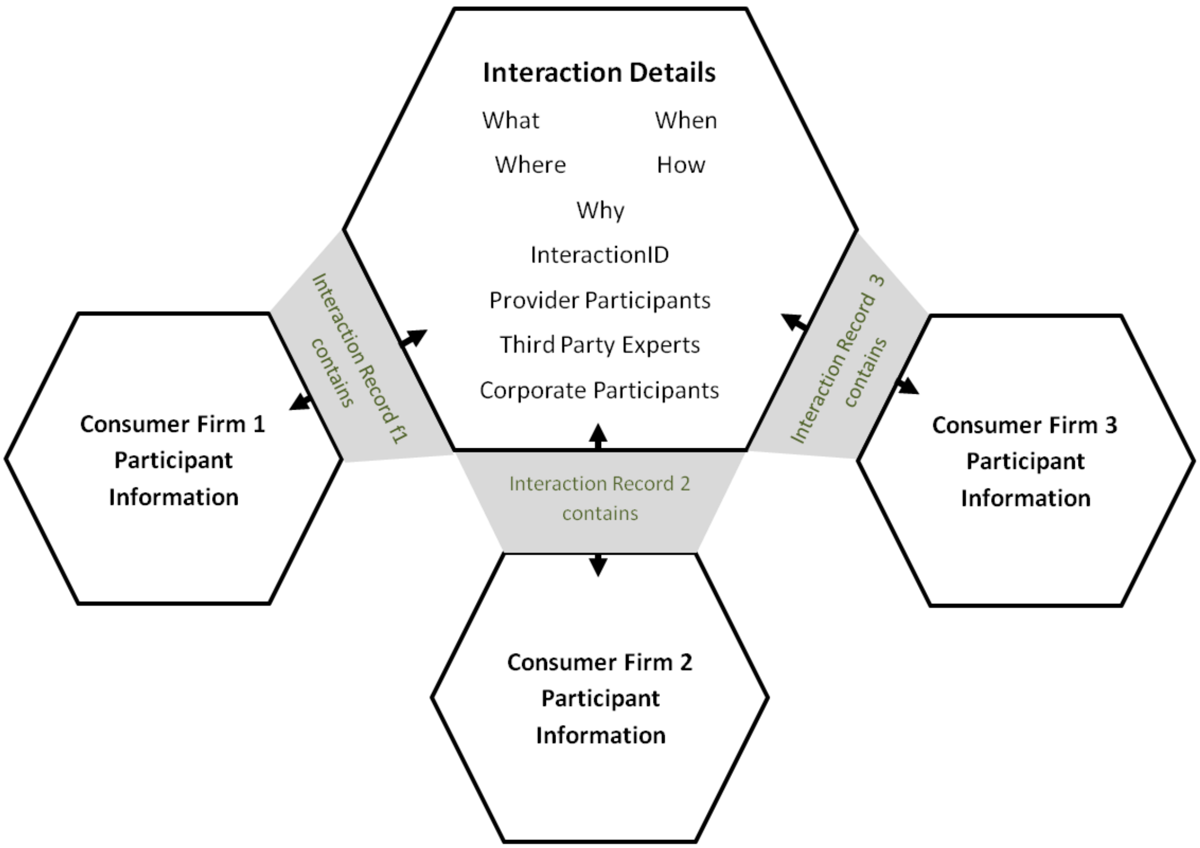
An interaction record is the individual XML file created for an individual firm that participated in the interaction using the RIXML Interactions Standard. It contains all of the information about an interaction, and about all of the participants in the interaction *except* for participants from other consumer firms. It enables the Interaction Provider and Consumer firms to comply with MiFID II regulations while maintaining the confidentiality of information regarding individuals from other Consumer firms.

What is the structure of an Interaction record?

To accommodate these requirements, the RIXML Interactions Standard contains two unique identifiers:

- the **InteractionID** identifies one specific interaction
- the **InteractionRecordID** represents the individual record itself.

For every interaction, there will be one record created for each participant firm, each with a unique InteractionRecordID, but sharing the same InteractionID. The InteractionRecordID is the top-level tag for each record. An interaction involving only one consumer firm will have one interaction record; an interaction involving more than one consumer firm will have multiple records, each with the same interactionID



How is the RIXML Interactions Standard used?

The RIXML Interactions Standard was designed to be extremely flexible. While it contains a robust set of tags to describe all aspects of an interaction, there are very few *required* tags, enabling firms to capture as much or as little as they need for each interaction.

Additionally, some firms may use it to capture the entire lifecycle of an interaction, while others use it to simply report the final details after an interaction has occurred. One firm may choose to update the record throughout the process, including the initial offering of the interaction, each individual's participation, and in-depth details of the topic discussed; while another firm may use the standard just to report the high-level details and actual attendees after an interaction has occurred. The way a firm intends to use the Interactions Standard will play a part in determining which optional tags and/or enumeration list values the firm uses.

Section 3: the RIXML Interactions Data Dictionary

This section provides the list of all simple elements, complex types, and attributes in the RIXML Interactions Standard version 2.0. See Appendix 1 at the end of this document for best practices, common mistakes, and important information about implementing this standard.

Interaction

Interaction is the root tag for an interaction record, represented by the InteractionType complex type. An interaction is an electronic or in-person communication between two or more participant firms (referred to as organizations in this standard). These include, but are not limited to, interactions that must be reported to comply with MiFID II regulations.

InteractionType

InteractionType is the complex type containing all information for the interaction record.

Simple Elements and Attributes:

interactionRecordID (Required attribute, string)
Unique identifier used to identify the interaction record. In cases where an event included multiple interaction consumers, there will be a separate interaction record sent to each consumer firm that contains only the attendee information for attendees from that firm. This *interactionRecordID* attribute is the unique identifier for the record itself, and is required. In interactions with more than one consumer firm (a blast email, a breakout session at a conference, etc.), the *interactionID* and all other information contained in the record will be the identical, except for the consumer participant information and the unique identifier contained in this *interactionRecordID* tag. Thus, this is the unique identifier for this specific interaction + the participant information contained in this record. Any status changes, etc. provided to the consumer firm about this interaction should maintain the same *interactionRecordID*, using multiple timestamped *Status* entries (see below) to track the changes. Use of a Universal Unique IDentifier (UUID), as described on page 21 of the *RIXML Research v2.5 Data Dictionary*, is recommended.

interactionID (Highly recommended attribute, string)
The identifier that uniquely identifies the interaction being described in the interaction record. In cases where there is only one record (i.e., an interaction with only one consumer organization), the same unique identifier can be used for *interactionID* and *interactionRecordID*; when there are multiple, the *interactionID* (this attribute) will be the same for each record, and the *interactionRecordID* will be a unique identifier for the record itself.

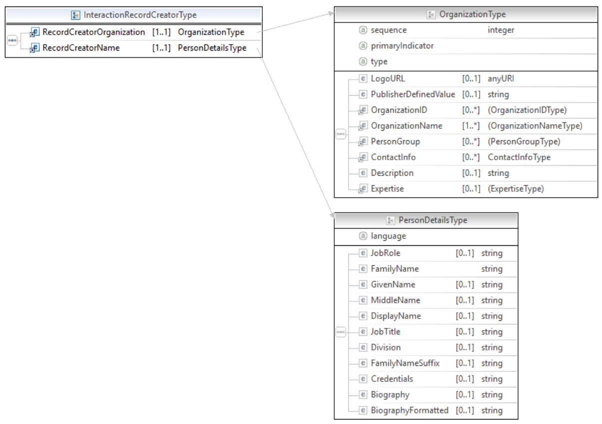
interactionID is not required, but note that the *relatedInteractionID* tag references the *interactionID* tag. Although the *interactionID* tag is not required, it is necessary for the tag to be populated in any record for which the *relatedInteractionID* would like to make a connection. Further, in cases where an interaction is a sub-event of a larger event, there will be an interaction record for each. In the sub-event record, the *interactionID* tag is used for the sub-event, and the *Related* container element provides the information for the parent event. Similarly, the parent event will have an interaction record, with references to the sub-event(s) indicated in the *Related* container element. Other events that are considered related can also be indicated, if desired.

Complex Elements:

InteractionRecordCreator (Required, InteractionRecordCreatorType complex type)
InteractionDetails (Required, InteractionDetailsType complex type)
Participants (Required, ParticipantsType complex type, multiples allowed)
InteractionStatusInfo (Required, InteractionStatusInfoType complex type, multiples allowed)
InteractionTopic (Optional, InteractionTopicType complex type, multiples allowed)
Related (Optional, RelatedType complex type)

InteractionRecordCreatorType

Complex type containing information about the person who created the Interaction record. Appears here rather than in the *Participant* container element because the record creator may have no other role in the interaction (e.g., an administrative assistant to the interaction host). In cases where the record creator is also a participant, the person would appear in both locations.



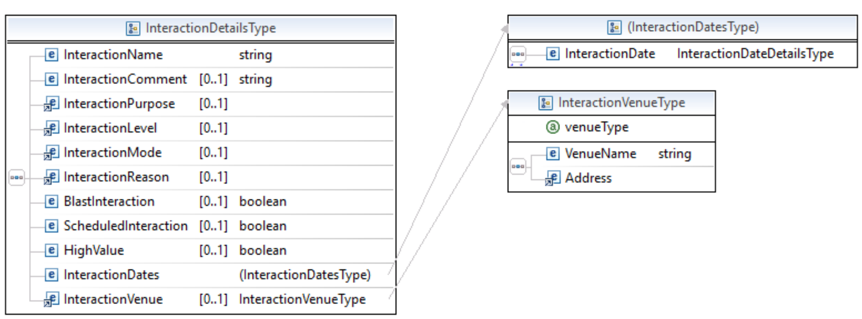
Complex elements:

RecordCreatorOrganization (Required, OrganizationType complex type)
Firm name for the person who created the record. Uses OrganizationType complex type from common schema, which only requires firm name. Additional elements and attributes can be used, if desired, but are not required.

RecordCreatorName (Required, PersonDetailsType complex type)
The name of the person who created the record. Uses PersonDetailsType complex type from common schema.

InteractionDetailsType

Complex type containing information about the interaction itself.



Simple Elements and Attributes:

InteractionName (Required element, string)
The "title" of the interaction, a name or short description that all participants would recognize to identify or describe the event. Does not need to be unique.

InteractionComment (Optional, string)
Free text comment field.

InteractionPurpose (Optional, interactionPurposeEnum)
The purpose of interaction – analyst marketing, model, deal roadshow, etc.

InteractionLevel (Optional, InteractionLevelEnum)
Indicates whether the interaction was interactive, one-directional, or was a delivered (electronic or physical) product.

InteractionMode (Optional, interactionModeEnum)
Enumeration list field that indicates the manner in which an interaction occurred (in person, email, data feed, etc.).

InteractionReason (Optional, InteractionReasonEnum)
Indicates whether the interaction was initiated by the consumer, was initiated by the provider with a specific consumer in mind, or was initiated by the provider for a more general audience.

BlastInteraction (Optional, boolean)
Flag to indicate whether the interaction is considered a blast interaction by the interaction provider. Applies only to InteractionModes of VoiceMail or Email, and only if the voicemail or email was distributed to multiple firms (or was not customized for an individual person/firm). For all other InteractionModes, this tag should be omitted entirely rather than being set to “false”.

ScheduledInteraction (Optional, boolean)
Flag to identify whether an interaction is delivered on a regular basis (data feed, etc.).

HighValue (Optional, boolean)
Flag to indicate whether the interaction provider predicts the interaction to be perceived as high value by the interaction consumer, or has been told by the interaction consumer that it should be tagged as such.

Complex Types:

InteractionDates (Required, InteractionDatesType complex type, multiples allowed)
InteractionVenue (Optional, InteractionVenueType complex type)

InteractionDatesType

Complex type containing details of the dates(s) associated with the interaction. These are the dates related to the interaction itself (start date/time, end date/time, etc.), not timestamps related to the interaction record. Each interaction record requires at least one date.

Complex types:

InteractionDate (Required, InteractionDateDetailsType complex type, multiples allowed)

InteractionDateDetailsType

Complex type containing the information pertaining to each instance of an InteractionDate complex type used in an interaction record. All elements are optional; however, there should be one instance of either *InteractionDateTime* OR *InteractionDuration* each time this complex type is used. Note that there is no mechanism in the standard to ensure consistency between an interaction's start/end time and the duration indicated in the *InteractionDuration* element; this consistency must be built into systems using this standard.

Simple Elements and Attributes:

InteractionDateTime (Optional element, xs:dateTime XML type)
Timestamp representing the date/time type indicated in the interactionDateType.

InteractionDateType (Optional element, interactionDateTypeEnum)
Type of interaction date/time representated by the interactionDateTime timestamp.

InteractionDuration (Optional element, integer)
Duration of interaction, expressed in minutes.

InteractionVenueType

Complex type containing details of the location associated with the interaction, when relevant. For interactions that do not occur in person (phone calls, voicemail, data feed, etc.), this tag should be omitted rather than left blank.

Simple Elements and Attributes:

VenueName (Required element, string)
Name of venue for the interaction.

venueType (Required attribute, InteractionVenueTypeEnum)
Attribute used to indicate the type of venue for the interaction.

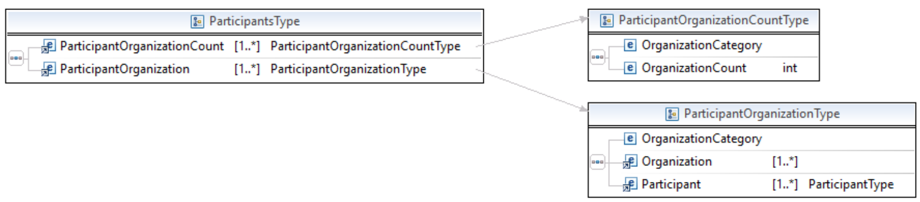
Complex Elements:

Address (Required, AddressType Complex Element)

ParticipantsType

Complex element containing information about the participants. All individuals will be affiliated with a participant organization. For single-person entities (e.g., some third party experts), the name of the individual can be used as the participant organization name, but the individual should also be referred to as an individual participant under the participant organization umbrella.

The Source package that exists in the common schema allows for (but does not require) a great deal of information about the individuals and firms participating in an interaction, including the areas of expertise for third-party experts.



Complex Elements:

ParticipantOrganizationCount (Required, ParticipantOrganizationCountType complex type, multiples allowed)
ParticipantOrganization (Required, ParticipantOrganizationType complex type, multiples allowed)

ParticipantOrganizationCountType

Complex type used to record the number of firms participating in an interaction.

Simple Elements and Attributes:

OrganizationCategory (Required element, OrganizationCategoryEnum)
Indicates the type of organization being described. Each type of organization that occurs in the ParticipantOrganization complex element should be captured.

OrganizationCount (Required element, integer)
Integer indicating the number of organizations (firms, not individuals) of that type involved in the interaction. There will generally be one interaction provider firm. All corporate and expert organizations (if applicable) should match the number of firms represented in the ParticipantOrganization tags. However, the number of Consumer firms may not, since each consumer firm will only receive the consumer firm-related data for their own firm.

ParticipantOrganizationType

Complex type containing details of a **firm** participating in an interaction, including details about the firm and about the individuals from that firm participating in the interaction. Each firm will have its own ParticipantOrganizationType element with zero, one, or more than one people affiliated.

Simple Elements and Attributes:

OrganizationCategory (Required element, OrganizationCategoryEnum)
Organization types will include: Provider, Consumer, Corporate, and Expert.

Complex Elements:

Organization (Required, OrganizationType complex type, multiples allowed)
Participant (Optional, ParticipantType complex type, multiples allowed)

OrganizationType

Complex type for Organization. Describes an organization related to the interaction record. Multiple organizations are generally related to one interaction record – at a minimum, the interaction provider and at least one interaction consumer.

Simple Elements and Attributes:

sequence (Optional attribute, Integer)
If there are multiple Organizations, 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 Organization.

primaryIndicator (Required attribute, YesNoEnum)
Indicates the primary organization relative to others that may be specified. When multiple organizations (subsidiaries of the same organization or different organizations) publish a product or host an interaction, one must be listed as primary (generally the parent organization or the name of the joint venture). NOTE: for InteractionsStandard, this tag can be set to “Yes” for all records.

type (Required attribute, OrganizationTypeEnum)
The type of the organization.

Description (Optional, string)
Optional description of the organization. Used to include any additional information about the organization.

LogoURL (Optional, UriReference)
Indicates the URL location of the logo of the organization.

PublisherDefinedValue (Optional, string)
For the cases in which the type attribute has the value PublisherDefined, the PublisherDefinedValue element is used to hold the organization's own description of the type.

Complex Elements:

ContactInfo (Optional, ContactInfoType complex element, multiples allowed)
OrganizationID (Optional, OrganizationID complex element, multiples allowed)
OrganizationName (Required, OrganizationName complex element, multiples allowed)
Expertise (Optional, Expertise complex element)

ParticipantType

Complex type for the information about each individual participating in the interaction.

Simple Elements and Attributes:

participantID (optional attribute, string)
A unique identifier used to identify each participant in the interaction. For accurate identification it is required that the personID be unique for a given publisher/provider, but the implementation of the ID is left to the publishers/providers to implement as they deem fit. Examples: email address, combination of LastName and FirstName, combination of internal employee ID and RIXML publisher ID. For records that are submitted to or through third-party aggregator(s), the PersonLabel complex element (within the Person element) can be used to provide the person identifier required for each aggregator.

isHost (optional attribute, boolean)
Optional flag to indicate whether an individual served as the host of the interaction. Should be omitted if the participant was not the host.

Complex Elements:

PersonDetails (Required, PersonDetailsType complex type, multiples allowed)
StandardizedRoles (Required, StandardizedRolesType complex type, multiples allowed)
InteractionParticipantStatus (Highly recommended, InteractionParticipantStatusType complex type, multiples allowed)

OrganizationID

An identifier used to identify the organization -- multiple are possible. For example, for a product or interaction record distributed via multiple vendors, each vendor may require a different OrganizationID, with the idType for each OrganizationID 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 OrganizationID node.

A UUID can also be used as one of the IDs. This is to facilitate the unique identification of a particular organization. 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).

Elements and Attributes:

idType (Required attribute, string)
Indicates the type of ID used. Examples: CUSIP, VendorCode.

OrganizationName

The name of the organization. An organization 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 attribute, OrganizationNameTypeEnum)
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.

language (Optional attribute, string)
Indicates the language of the name value given, described using the ISO 639-2/T Code. In the RIXML Research standard, overrides the language attribute on the Research element.

Expertise

The purpose of the Expertise element within the Organization element is to identify one or more areas of expertise offered by the organization. Descriptions for the elements and attributes available in the Expertise complex element are available in the *RIXML Research Data Dictionary (*page 26).

Elements and Aggregations:

PublishingLanguages (Optional)
Specialties (Optional)
AssetClasses (Optional)
AssetTypes (Optional)
SecurityTypes (Optional)
Regions (Optional)
Countries (Optional)
SectorIndustries (Optional)
Disciplines (Optional)

PersonDetailsType

Complex type collecting the information about each person participating in the interaction (including record creator).

Simple Elements and Attributes:

personID (Required attribute, string)
An identifier used to identify the person. For accurate identification it is required that the personID be unique for a given publisher/provider, but the implementation of the ID is left to the publishers/providers to implement as they deem fit. Examples: combination of FamilyName and GivenName, combination of internal employee ID and RIXML publisher ID.

FamilyName (Required element, string)
Indicates the family name of the person.

GivenName (Optional, string)
Indicates the given name of the person.

MiddleName (Optional, string)
Indicates the middle 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 -- e.g. Managing Director, Vice President, etc.

Division (Optional, string)
Indicates the division that the person officially works for within an organization.

FamilyNameSuffix (Optional, string)
An accommodation for family name modifiers traditionally appearing after the person's name -- e.g. Jr., Sr., III.

Credentials (Optional, string)
An accommodation for credentials traditionally appearing after the person's name -- e.g. C.F.A., Ph.D., Esq.

JobRole (Optional, string)
Indicates the functional role played by the person relative to his/her job in the organization, for example, analyst, strategist, economist, etc. NOTE: for RIXML InteractionsStandard, recommendation is to omit this tag, as it contains similar information as the StandardizedRole complex element that is required for the Interactions Standard.

Biography (Optional, string)
Biographical information about the person. No markup permitted.

BiographyFormatted (Optional, string)
Biographical information about the person. Limited markup permitted - HTML code for paragraph, ordered lists and unordered lists with list items, bold, underline, and italics.

PhotoResourceIdRef (Optional, string)
An XML Schema keyref that will link to a Resource element representing a small photograph image of the person. FOR RESEARCH STANDARD: value must match a Resource.resourceID in this Product.

Complex Elements:

ContactInfo (Optional, ContactInfoType, multiples allowed)
PersonLabel (Optional, multiples allowed)
PersonDetailsAlternativeLanguages (Optional for Research standard, OMITTED for Interactions Standard v2.0)

PersonLabel

This element can be used to include a label by which this person is known in the context named in the personLabelContext attribute. Useful for supplying author codes that have meaning on specific vendor platforms.

Elements and Attributes:

personLabelContext (Optional, string)

This attribute must be used to indicate the specific context for the person label. This would typically be a mnemonic for an individual vendor platform in which the labeled person has a presence. For example, it may be useful for identifying authors of research contributed to a particular vendor platform.

InteractionParticipantStatusType

Indicates the status of the individual in the context of the interaction. (NOTE: not to be confused with the Status complex type, which contains information surrounding the status of the interaction itself.) *InteractionParticipantStatus* can be updated multiple times as that participant's status changes; at a minimum, it should definitely be updated (with timestamp) once meeting has occurred to ensure accurate recording of actual attendance. Any participant with status of *Accepted* should be updated once the interaction has occurred. A workflow could either include manually updating every individual participant to the appropriate post-interaction status (*no show*, *attended*, etc.), or that those who did NOT attend would be manually updated, and an automatic sweep would update everyone else to *Attended*.

Elements and Attributes:

ParticipantStatus (Required, InteractionParticipantStatusEnum)

Indicates the participant's status as related to the associated StatusTimeStamp.

StatusTimeStamp (Required, xs:dateTime)

Indicates the timestamp for the related status.

StandardizedRolesType

Complex type to capture the role associated with a participant, as expressed in a standardized list of options. Indicates the person's role within their firm, not role in the context of the interaction. (See free-text *JobTitle* tag for the person's company-defined title.)

Complex Elements:

StandardizedRole (Required, StandardizedRoleEnum)

Enumeration list-limited tag defining the person's role within his/her firm. May or may not match person's title. The RoleEnum list contains guidance regarding which roles are valid for each participant type (consumer, corporate, third party, or provider).

ContactInfoType

The ContactInfo complex type contains the contact information for the organization or person being described. Can describe address, phone, email, IM and/or website contact information, at least one of which is required.

ContactInfo

The top-level element of the ContactInfo section.

Simple Elements and Attributes:

nature (Required attribute, ContactInfoNatureEnum)
Used to indicate the nature of the contact information - business or personal.

purpose (Optional attribute, ContactInfoPurposeEnum)
Describes the intended purpose of the contact information.

Description (Optional element, string)
A brief description of the contact information can be included here, if desired. This element is intended to pick up where the *purpose* attribute leaves off. It offers the ability to provide more detail.

Complex elements:

Address (Strongly recommended, AddressType complex element)
Email (Strongly recommended, Email complex element, multiples allowed)
Phone (Optional, Phone complex element, multiples allowed)
Website (Optional, Website complex element, multiples allowed)
InstantMessenger (Optional, InstantMessenger complex element, multiples allowed)

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.

AddressLine4 (Optional, string)
Indicates the fourth line of the street address.

AddressLine5 (Optional, string)
Indicates the fifth 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.

InstantMessenger

Describes an Instant Messenger address.

Simple Elements and Attributes:

type (Required, InstantMessengerTypeEnum)

Indicates the Instant Messenger protocol type -- i.e. AIM, ICQ, MSN, SMS, Yahoo, etc.

publisherDefinedValue (Optional, string)

For specifying other IM systems.

Phone

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

Elements and Attributes:

type (Required, PhoneTypeEnum)

Phone numbers can be one of the following types - voice, fax, or pager.

location (Optional, PhoneLocationEnum)

Describes the location of the phone at this number -- i.e. office, home, moblie.

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. Provides a URI reference for a web site.

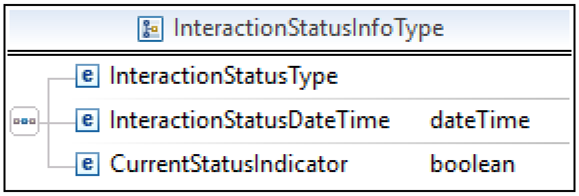
Elements and Attributes:

URL (Required, UriReference)

Web address associated with the person or organization.

InteractionStatusInfoType

Complex type for the status information for the interaction. As with the status tag in the Research standard, the status will pertain to the status of the interaction itself AND of any routine changes/updates to the interaction record. However, status information about individual participants will be located in the Participants area; additionally, information about the start/end date of the interaction will be housed in the InteractionDates area.



Simple Elements and Attributes:

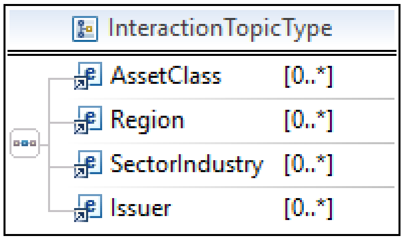
InteractionStatusType (Required, InteractionStatusTypeEnum)
Indicates the status represented by the interactionStatusDate timestamp. Firms that will be using this schema to disseminate information exclusively for interactions that actually occurred will likely only use the *Delivered* status type. Firms that use this schema for internal systems and/or for disseminating information about events at various stages of interaction lifecycle will use the other enumerations as well. For clarity, it is recommended that firms either use just the final status of the interaction or provide the entire interaction lifecycle, rather than providing some (but not all) parts of the lifecycle.

InteractionStatusDateTime (Required, xs:dateTime)
Indicates the date and time at which the status was assigned. It is expressed using ISO 8601 as refined by the World Wide Web Consortium's note http://www.w3.org/TR/NOTE-datetime. In addition, RIXML requires the use of Zulu time or Z-time (GMT +/- n hours:minute:seconds). All times are absolute and easier to compute, rather than using a relative (i.e. 08:30 +5) time.

CurrentStatusIndicator (Required, boolean)
Indicates whether or not the statusType is current -- i.e. the most recent. Note that while a product can have multiple statuses, only one of them can be current.

InteractionTopicType

This is the complex element containing information about the topic of the interaction, including identifying the companies, regions, sectors, industries, etc. that are the topic of the interaction. Note that all of this information is optional; firms can include or omit this as desired to provide additional details about the interaction's purpose. Although this information could be contained in the InteractionName and/or InteractionComment fields, the InteractionTopic complex element will enable presenting this information in a structured format.



Complex Elements:

AssetClass (Optional, AssetClass complex element, multiples allowed)
Description on page 56 of the RIXML Research Standard v2.5 Data Dictionary; enumeration list on page 70.

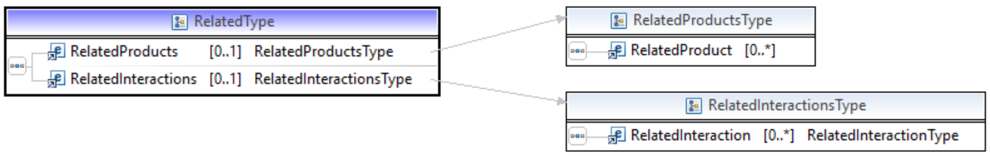
Region (Optional, Region complex element, multiples allowed)
Description on page 62 of the RIXML Research Standard v2.5 Data Dictionary; enumeration list on page 102.

SectorIndustry (Optional, SectorIndustry complex element, multiples allowed)
Description on page 63 of the RIXML Research Standard v2.5 Data Dictionary; enumeration list on page 104.

Issuer (Optional, incorporates issuer IDs, multiples allowed)
Description on page 46 and 48 of the RIXML Research Standard v2.5 Data Dictionary.

RelatedType

Complex element containing information about related interactions and/or research content. Related interactions would include the conference that a particular interaction is part of or a prior interaction that this interaction is a follow up interaction to; related research content would include a data feed file or a research report. Related research content would be described using the RIXML Research Standard.



Complex Elements:

RelatedProducts (Optional, RelatedProductsType complex element, multiples allowed)

RelatedInteractions (Optional, RelatedInteractionsType complex element, multiples allowed)

RelatedProduct

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

Elements and Attributes:

relatedProductID (Required attribute, string)
The unique productID of the product to which this product is related (as stored in Product.productID of the related document).

relationshipType (Required attribute, ProductRelationshipTypeEnum)
Indicates the type of relationship between this product and another product or interaction.

RelationshipDescription (Optional, string)
The description of the relationship between the current product or interaction and the product to which it is related.

RelatedInteraction

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

Elements and Attributes:

relatedInteractionID (Required, string)
The unique interactionID of the interaction to which this interaction is related (as stored in InteractionID of the related document).

relationshipType (Required, InteractionRelationshipTypeEnum)
Indicates the type of relationship between this product or interaction and a related interaction.

RelationshipDescription (Optional, string)
The description of the relationship between the current interaction and the other interaction to which it is related.

Section 4: Standard XML Types

Standard XML Types

The following standard XML types are used in the RIXML Interactions Standard:

boolean

For fields that are defined as boolean type, valid terms are:

1 (which indicates true)

0 (which indicates false)

date

Used for tags requiring a standard date/time stamp in format "YYYY-MM-DD"

dateTime

Used for tags requiring a standard date/time stamp in format "YYYY-MM-DDThh:mm:ss"

int

Used for tags requiring a signed 32-bit integer.

string

Used for free-text tag fields. Can contain letters, numbers, characters, spaces, line breaks, and tabs. Tags that are restricted strings are limited to the values provided in the associated enumeration list (see section 6 of this document).

Section 5: Enumeration lists

Listing of all the enumerated values used in any restricted string tags.

ContactInfoNatureEnum

Describes the nature of the contact information -- i.e. business or personal.

Enumeration Values:

Business

Contact's business data.

Personal

Contact's non-business data.

ContactInfoPurposeEnum

Describes the purpose of the contact information.

Enumeration Values:

Participation

Participation -- as in a conference call or on-line forum.

Replay

Replay -- as in a replay capability for a past conference call or transcript of an on-line forum.

Operator

QuestionAnswer

For the purpose of a question and answer session, as in a conference call.

Registration

Contact information to be used to register for an event.

IntiatorEnum

Enumeration Values:

Consumer

A buy-side firm or other firm participating as a consumer of the interaction.

Corporate

Provider

InstantMessengerTypeEnum

Describes the sort of Instant Messenger contact information provided.

Enumeration Values:

AIM

America On-Line Instant Messenger.

ICQ

I-seek-you.

MSN

The Microsoft Network.

SMS

Short Message Service.

Yahoo

Yahoo! Messenger.

PublisherDefined

Allows for IM systems not captured in the existing enumeration list. Use the corresponding publisherDefinedValue attribute.

InteractionDateTypeEnum

Enumeration Values:

CancellationDate

DateDue

DateRequested

DeliveryDate

EndDate

ExpirationDate

InitialContactDate

StartDate

n/a

InteractionLevelEnum

Enumeration Values:

OneDirectional

An interaction in which the presenter (the interaction provider or a corporate or expert attendee) is speaking or providing content, but the consumer attendees are not.

Interactive

An interaction in which there is a discussion, Q&A session, or other means for the interaction consumer to ask questions or provide input.

Deliverable

An interaction represented by the delivery of a report, data feed, model, or other tangible (print or electronic) outcome.

InteractionModeEnum

Enumeration Values:

Call

Phone call.

DataFeed

Creation or update to an existing automated data set request.

Email

Electronic communication via email only, not IM.

IM

Electronic text communication via IM provider such as Bloomberg or Symphony.

Inperson
Meeting with participants physically present.

Model
Delivery of an analyst model.

Product
Delivery of a research report or other hard-copy or electronic deliverable other than a model.

Service
Provision of an agreed-upon service benefitting the interaction consumer.

Video
Video conference.

VoiceMail
Voicemail message.

PublisherDefined
Other type of meeting not fitting one of the above criteria.

InteractionParticipantStatusEnum

Enumeration Values:

Accepted
Attended
Canceled
LateCancel
NoShow
Rejected

InteractionPurposeEnum

Enumeration Values:

AnalystMarketing
Planned in-person, video and audio meetings with research analyst and one or more other buy-side firms present. Excludes account review meetings, sales meetings, trader meetings and general (unscheduled) phone calls. Meaningful, unscheduled phone discussions should be tagged with *interactionTypeEnum* = *AnalystMarketing* AND *interactonMode* = *Call*.

BankerMeeting
Meeting hosted by research provider to discuss investment banking opportunities.

Conference
Meetings with any corporate at a broker-sponsored conference.

CorporateAccess
Interaction provider facilitating meeting between interaction consumer and corporate firm.

Content
Delivery of a single research item, model, comp sheet, survey result, or other data set. Excludes the provision of automated data feeds.

DealRoadshow
Meeting or call with a corporate that has an impending IPO or secondary offering in the works

ExpertMeeting
Meeting or call with current or former government official or industry expert regardless of venue or encompassing event.

FieldTrip
Visit to the working sites of a corporate.

Idea
Research idea.

InvestorDay
An Issuer planned event in which current or potential Investors will come visit headquarters in order to find out more about what is going on with the company – whether it be financials, new initiatives, etc. The Issuer (IR Admin) is responsible for the planning of the event / organizing the itinerary.

NonDealRoadshow
Meeting or Call with a corporate that does NOT have an impending IPO or secondary offering pending, generally at a client's office.

RelationshipMeeting
Interaction between a relationship manager and a client to discuss relationship or account reviews

Sales
Interaction with a sellside generalist salesperson.

SalesSpecialist
Interaction with a sellside specialist salesperson.

Social
Social event between the broker and investor (ex: sporting event).

PublisherDefined
For interaction types not otherwise captured in InteractionTypeEnum.

InteractionReasonEnum

Enumeration Values:

ConsumerRequested
Interaction that occurs because the interaction consumer requested it.

OnSpec
Interaction that occurs because the interaction provider has created it for a specific information consumer, but not at the consumer’s specific request; may be based on the information provider’s knowledge of the information consumer’s preferences, needs, or interests.

NonDirected

Interaction created for or aimed at more than one client, or at a general audience rather than for a specific person or firm. Examples include conferences, research reports, blast voicemails, branded data feeds, etc.

InteractionRelationshipTypeEnum

Enumeration Values:

ParentEvent

An interaction that is the umbrella event for the sub-event documented in this Interaction record.

SubEvent

An interaction that is a sub-event of the interaction documented in this Interaction record (breakout session, panel discussion, etc. An interaction record may have more than one sub-events.

AnnualEvent

For an annual interaction (conference, etc.), records for the prior or subsequent year/years.

InteractionStatusTypeEnum

Enumeration Values:

Accepted

Interaction invitation has been accepted by participant, but interaction has not occurred yet.

Confirmed

Delivered

Requested information has been delivered, completing the interaction.

Declined

Interaction was offered, but was declined by the invitee. If additional distinction is needed to clarify the type of decline (e.g., not available vs. not interested), then tag the interaction with BOTH *Declined* AND *Other*, noting the interactions specific "decline type" there.

Invited

Participant has been invited to the Interaction, but participant hasn't accepted, declined, etc.

New

Participant's name has been added to the Interaction record, but participant hasn't accepted, declined, etc.

Offered

Interaction has been offered by interaction provider, but consumer has not replied.

Postponed

Participant has requested postponement of the interaction.

Tentative

Participant has been notified of interaction, has not confirmed attendance. Generally indicates that the participant has expressed interest in this interaction before the interaction date/time was established..

WaitListed

Participant has been placed on waitlist for the interaction.

PublisherDefined

Other type of meeting not fitting one of the above criteria.

InteractionVenueTypeEnum

Enumeration Values:

Offsite

Interaction occurred at a place other than the interaction consumer's office.

Onsite

Interaction occurred at the interaction consumer's office.

OrganizationCategoryEnum

Enumeration Values:

Consumer

A buy-side firm or other firm participating as a consumer of the interaction.

Corporate

A participant representing a corporation or other entity

Expert

A participant brought in by the Provider firm to provide expert information to the consumer firm(s).

Provider

A sell-side firm or other entity serving as the host of the interaction; generally one who is required to provide

OrganizationNameTypeEnum

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.

OrganizationTypeEnum

Indicates the type of the organization -- i.e. sell-side firm, buy-side firm, government, etc.

Enumeration Values:

SellSideFirm

BuySideFirm

Corporation

IndustryAssociation

An organization founded and funded by businesses that operate in a specific industry to promote common goals or foster collaboration or standardization between companies.

AcademicInstitution

An educational institution dedicated to education and research, which grants academic degrees.

Government

RatingAgency

A rating agency is a company that assigns ratings for issuers of certain types of securities as well as the securities themselves.

MarketResearchFirm

A market research firm is one that gathers information about markets or customers.

IndependentResearchProvider

An investment research provider that does not engage in investment banking, company consulting or research-for-hire.

Consultancy

An entity that provides professional or expert advice in a particular area.

Regulatory

A public authority or government agency responsible for exercising autonomous authority over some area of human activity in a regulatory or supervisory capacity.

MarketingAgency

An organization created by producers to try to market their product and increase consumption and thus prices.

WealthManager

A credentialed financial advisory professional that provides financial planning, investment portfolio management and other financial services to affluent long-term investors.

PublisherDefined

PhoneLocationEnum

Describes the physical location of the phone device -- i.e. office, home, mobile.

Enumeration Values:

Office

Home

Mobile

PhoneTypeEnum

Describes the type of the phone at this number. Indicates the phone technology -- i.e. voice, fax, pager, etc.

Enumeration Values:

Fax

Facsimile number.

Voice

Voice telephone number.

Pager

Pager number.

ProductRelationshipTypeEnum

Enumeration Values:

BasedOn

A product's content is based on another product. Example: A report that is published is based on a morning call note.

PartOf

A product is part of another product. Examples: (1) A Portfolio Manager's Summary of a report, given to PMs, is part of the whole report. (2) An HSBC company report is 'part of' a Hong Kong banks industry initiation.

References

A product references another product. Examples: (1) A notation in a periodical (or weekly report) makes a 'reference' to a company report. (2) A company report 'references' an earlier company report on the same subject.

Replaces

This product is intended to directly replace the related product. Example: A company report issued in the afternoon corrects an error in an earlier publication. It 'replaces' the earlier report.

Requires

A product requires another product in order to make sense. Example: A chart may not make any sense without the accompanying text.

TranslationOf

A product that is a language translation of another product. Example: A report written originally in English is translated into Japanese language.

RelatedTo

A product that relates to another product or subject type, but is not necessary to understand this product. Example: An analyst writes more than one report on 'CAMELOT' valuation over a period of 1 year. The reports are 'related to' each other. They are not 'referenced' to each other per se, as they can be stand alone items on their own, and you do not need to read one before the other to understand what is being said.

RegionEnum

Enumeration Values:

Asia (ex-Japan)
Australia
EEMA
Japan
Latin America
MEA
North America
United States

StandardizedRoleEnum

There is one StandardizedRole enumeration list that contains the functional roles appropriate for all participant types (provider, corporate, third party, and consumer). The list below breaks the full list into categories to indicate which roles are appropriate for each participant type. Note that some roles are valid in more than one participant type; these appear in each of the appropriate lists below. Although best practice is to ensure that the "highest value" participant's role is included in the interaction, the determination of what constitutes each participant's (or participant type's) relative value is left to the user.

Enumeration Values valid for CONSUMER participants:

BrokerLiason
Compliance
ConsumerAnalyst
ConsumerClientManagement
ConsumerCoordinator
ConsumerIT
ConsumerSales
DirectorOfResearch
PorfolioManager
PublisherDefined

Enumeration Values valid for CORPORATE participants:

BoardMember
BoardSecretary
BusinessDevelopment
CEO
CFO
Chairman
CIO-Information
CIO-Investment
CMO
COO
CRO
CSO
CTO
Director
Executive
ExecVicePresident
Founder
GeneralCounsel
HeadOfBusiness
InvestorRelations
ManagingDirector
ManagingPartner
Partner
President
RegionalHead

SeniorVicePresident

Treasurer

ViceChairman

VicePresident

PublisherDefined

Enumeration Values valid for THIRD-PARTY participants:

DataScientist

GovernmentExpert

IndustryExpert

MacroStrategist

MedicalExpert

Regulator

PublisherDefined

Enumeration Values valid for PROVIDER participants:

AnalystEquity

AnalystFixedIncome

AnalystFX

BusinessDevelopment

Compliance

COO

DirectorOfResearch

InvestmentBanker

MacroStrategist

ProviderClientManagement

ProviderCoordinator

ProviderIT

ProviderManagement

ProviderSales

SpecialistSales

PublisherDefined

YesNoEnum

Enumeration Values:

No

Yes

Appendix 1: Best Practices and Common Mistakes

Below is additional information covering the more technical aspects of the RIXML Interactions standard.

File management

RIXML file extension is *.xml*

RIXML Interaction files should have an '.xml' file extension, not '.rixml'

CORRECT: interaction18524898.xml
INCORRECT: interaction18524898.rixml

Perform all transactions via RIXML

For any interaction record submitted using RIXML, any other transaction involving that record – including revisions, recalls and deletions – should be achieved by sending a RIXML file. Bypassing this process by manually performing any operation (such as an emergency delete) by phone or e-mail request also bypasses the automated processing, controls, quality checks, and audit trails built into vendor ingestion systems, and will often result in future problems.

Formatting

Tags are order-specific

Tags must be placed in your RIXML file in exactly the same order as they are specified in the RIXML Interactions schema.

Required tags are required

Be sure to include all required tags.

In all RIXML standards, the number of required tags is kept to a minimum, as a record missing a required tag will be rejected, so too many required tags can make it difficult to implement a standard. Many of the tags are listed as *Required*, but are only required IF the tag set that the tag is a part of is used. For example, the RelatedProduct tag set is optional; however, if a record uses it, the relatedProductID is required. The relatedProductID is not required in any record that does not use the RelatedProduct tag set.

Highly recommended tags should be included whenever possible

Technically speaking, a tag that is highly recommended is actually optional; however, the member firms of RIXML.org have determined that it is best practice to use it. Some vendors may choose to reject submissions that do not have the highly recommended tags.

Tag names are case-sensitive

Tag names must be spelled exactly as documented.

CORRECT: <firstName >
INCORRECT: <FirstName > or <FIRSTNAME>

Make sure to escape (but not double-escape) special XML characters

There are several characters that have special meaning in XML. In English, placing a question mark or exclamation point in the middle of a sentence would likely confuse a reader. Likewise, characters like ‘&’ and ‘<’ are used for XML ‘punctuation’. If you need to use such characters within your tag data (e.g., your title includes “Property & Casualty”), you need to ‘escape’ them. You do this by using ‘&’ instead of ‘&’. These codes are called XML *entities*. A full list can be found in the XML documentation on the W3C.org web site.

CORRECT:	“Property & Casualty” for “Property & Casualty”
CORRECT:	enclose your data within a CDATA section which informs XML parsers that the text within the section is to be interpreted literally.
INCORRECT:	not escaping: “Property & Casualty” would not appear correctly; consequences would depend on the XML parser and downstream software.
INCORRECT:	double-escaping: “Property ‘&amp Casualty” would often be displayed as “Property &amp Casualty,” although consequences would depend on the XML parser and downstream software.

Default values

Hard-coding text or other values in any XML tag is strongly discouraged.

There are several reasons that it may be tempting to have automated systems simply fill in default values. These automations:

- may not collect all the information about each interaction that is necessary to fully populate all the RIXML tags
- may populate a field with a default value when in some cases, omitting the field would be a more accurate choice

There are some cases in which default values can be accurately applied. For example,

- information in the provider tag, which provides the information about the interaction provider firm, will generally be the same for all interaction records published by thatprovider. In that case, it is fine to hard code that information.
- if you are only capturing interactions that have occurred, you can safely automate every record to be tagged with interaction status type *Delivered*. Or, if you are only capturing the actual attendees of meetings, you can safely automate every participant’s status as *Attended*.

Aside from these extremely clear-cut situations, hard-coded values should not be applied. For optional fields, it is preferable to omit tags or leave them blank until your firm’s infrastructure can be adjusted to apply these tags accurately.

Enumeration lists

Please make sure to consult the "Enumeration Lists" section of the *Implementation Guide* for critical information regarding RIXML's use of enumeration lists in fields with a restricted string type. Below is some additional information on the technical details of the proper use of enumeration lists in RIXML.

Enumerated values are case-sensitive

Enumerated tag values must be spelled exactly as documented, including case.

CORRECT: "AnalystFX" or "HeadOfBusiness"
INCORRECT: "analyst-fx", "ANALYSTFX", "HeadofBusiness", "headofbusiness"

Enumerated values are exclusive

Enumerated tag values are exclusive – you can't make up your own for tags that the RIXML Interactions Standard provides a set list of values. Additionally, "" (null) is not valid for enumerated tags. If the tag is included, a valid value must also be included. The way to use your own values is via the enumeration value of "PublisherDefined" where applicable.

CORRECT: "Onsite" or "Offsite" or "N/A"
INCORRECT: "Conference" and ""

The "PublisherDefined" option

In many enumeration lists, there is an option called PublisherDefined. This is available for those instances where none of the available terms in the list applies, or when the publisher or interaction provider wants to add one or more values in addition to the ones in the enumeration lists. The PublisherDefined option enables RIXML users to provide their own custom ("publisher-defined") values in a way that remains RIXML-compliant.

It is critical that the PublisherDefined option be used sparingly and judiciously. While it is tempting to use this tag to essentially bypass the enumeration list and use the terms that you use internally, it is important to realize that using it can actually hide your content. The only reason to use this is if the information is important AND no existing tag comes close.

The PublisherDefined value is used when a publisher does not find the desired value, or a close substitute, in the enumerated list. An attribute is set to PublisherDefined, and a companion tag is used to hold the publisher's own value.

We recommend that record creators provide at least one value from the existing enumeration list whenever possible, because great care has gone into creating enumeration lists that provide the broadest list of terms commonly used in the industry. As other terms come into use, it is fine to add to the list, but generally, it is better to map your terms to the closest existing tag rather than creating a new one. It is NOT acceptable to bypass the enumeration list solely to simplify processing on your side.

NOTE: Vendors are not required to support "Publisher Defined" values. While a contributor may include publisher-defined values for the benefit of some recipients or to support internal applications, contributors should not expect or demand that vendors incorporate these non-standard values into their products serving consumers. If a publisher does not support the non-standard value that you contribute, the field will be blank in their database and will not show up in searches, etc. A vendor can, however, use the *PublisherDefined* option to make specific terms available in its interface that are not in the RIXML enumeration list. The user-facing interface can display a list of terms that includes both values from the RIXML list and ones created by the vendor; behind the scenes, that information will be captured using the RIXML terms when appropriate, and the PublisherDefined option+ the vendor's term combination for the terms that re not in the RIXML list.

> If you find that there is a term new to the industry (for example, a new issuer identification term, a new type of interaction required to be reported by MiFID II, etc.), RIXML.org recommends that you submit the new term to RIXML.org for consideration to be added to the appropriate existing enumeration list.