RIXML

Contributing Research via SFTP (Quick Guide)

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November 2017

Bloomberg

Introduction

As a Bloomberg contributor you can give clients and investors immediate access to your research reports. Sending your research documents through SFTP allows you to cross-reference your research with relevant ticker, industry, country or product pages to maximize exposure.

The Research Contribution system accepts RIXML formatted files. This document will focus on the specifics for Bloomberg when utilizing this format.

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RIXML Files can be transmitted to Bloomberg for distribution via secure file transfer protocol (SFTP). This file should indicate the companies, industries and regions which are applicable to the accompanying research so that the content will be accessible to your clients.

As a contributor utilizing SFTP, you will be advised of the Bloomberg Internet Protocol (IP) address and provided a login that will be specific to your firm. All contributors using SFTP must have access to port 22.

Overview

This document is complementary to the main Bloomberg document describing contribution of research via SFTP, titled: SFTP Contribution to Bloomberg (English) - XML Format.

Bloomberg supports RiXML2.0, RiXML2.2 and RiXML2.2 Level One and RiXML2.4

RIXML schemas can be found at http://www.rixml.org/technical/current_specification
A link to the RiXML "best practices" guide is provided here for your reference. http://www.rixml.org/assets/documents/Best-Practices-for-Publishing-RIXML.pdf

RIXML submissions are sent via SFTP and the corresponding login id is used to identify the wire. Encoding should be in UTF-8. Files should be sent using an .xml extension for the RIXML and attached PDF files should have the same base name as the rixml file. i.e.

- > researchreport1.xml
- researchreport1.pdf

For optimal discoverability on the Bloomberg Professional[™], we recommend that you include the appropriate Bloomberg ticker symbol (exchange and country), as well as the asset class/type, product type, country, product focus and analyst information in the RiXML product file.

Research Elements

Action (New/Update/Delete)

To determine if this report is being added, removed or updated to the Bloomberg research product, the **statusType** attribute of the **StatusInfo** element will be evaluated for the below mentioned StatusTypeEnum values.

This will occur if the **currentStatusIndicator** attribute is set to "Yes"

```
Published = add to the Bloomberg research product
Rebroadcast = add to the Bloomberg research product
Recalled = remove from the Bloomberg research product
Deleted = remove from the Bloomberg research product
Revised = update the report in the Bloomberg research product
```

Research product ID

The Product element is required in all use cases. It represents a single research publication.

Examples: research note, research report, conference call webcast, morning meeting compilation.

The product ID attribute is similarly required in all use cases. Its purpose is to uniquely identify a particular Product element. The product ID should be the same as the research ID and resource ID.

Entitlement group (Mandatory)

To ensure proper placement within the current research entitlements framework, the wire class information is currently included as part of the Audience Entitlement nodes of the **EntitlementGroup** section of the RIXML document. The **audienceType** attribute must be set to "**PublisherDefined**". Multiple AudienceTypeEntitlement nodes are allowed.

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As Bloomberg introduces the new MIFID entitlements framework in 2017, a migration from the traditional wire class model will take place. It is expected that an additional Sub-Product attribute (to be provided by your Account Representative) will also have to be included here for appropriate access to your content. Your Bloomberg Account Representative will work with you closely during this transition to ensure the process is seamless.

Wire class model

```
<EntitlementGroup>
<Entitlement primaryIndicator="Yes" includeExcludeIndicator="Include">
<AudienceTypeEntitlement audienceType="PublisherDefined">BLOOMBERG_CLASS=0072
</AudienceTypeEntitlement>
<TimeEntitlement endDateTime=" 2010-07-25T10:33:47 "/>
</Entitlement>
</EntitlementGroup
```

New package model: contributor provides Bloomberg package ID

New package model: contributor provides proprietary package (Doc Group) ID

Ticker (Mandatory for Company/Industry Equity reports)

Bloomberg Terminal subscribers can search for research using company tickers. In addition a significant number of key functions and analytics are driven off the ticker information. The Bloomberg tickers associated to the research products should be included in the **idValue** attribute of the **IssuerSecurityID** node with Bloomberg as the corresponding **idType**. Multiple idTypes are allowed. Security rating, estimate and target price actions can also be included.

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To indicate the "primary" company associated with a story, the **primaryIndicator** setting should be "**Yes**" at both the Issuer and Security levels.

```
<Issuer Details>

<Issuer primaryIndicator="Yes" issuerType="Corporate">

<SecurityDetails>

<Security primaryIndicator="Yes" sequence="1">

<Security recommendationAction="Upgrade" targetPriceAction="Increase"

estimateAction="Reiterate">

<SecurityID idType="Bloomberg" idValue="BBY US" tradingCountryCode="US">

</SecurityID>

<SecurityID idType="CUSIP" publisherDefinedValue="086516101" idValue="086516101" tradingCountryCode="US">

</SecurityID>

</SecurityID>

</SecurityDetails>

</Issuer
```

Country / Region (Mandatory)

Bloomberg supports ISO codes. Country identifiers are extracted from the code attribute of the Country element, within the **ProductClassification** node. Multiples are allowed.

The **primaryIndicator** setting should be "**Yes**" to delineate the primary country associated with the research product.

A complete list of ISO country codes can be found on the ISO's website:

http://www.iso.org/iso/country_names_and_code_elements

Region elements should also be included to indicate the geographical regions discussed in the research product. The required region Type attribute takes its values from the RixML Region Type enumerator list.

The **primaryIndicator** setting should be "Yes" to delineate the primary region associated with the research product.

Product Focus (Recommended)

This tag is used in conjunction with the primaryIndicator fields in Sector/Industry, Discipline, Issuer, Region, Country, Asset Class, Asset Type, Security Type and Index to indicate the primary topic of the product. The **ProductFocus** should be included within the **ProductDetails** node.

The **primaryIndicator** setting should be "Yes" to delineate the primary focus associated with the research product.

```
<ProductDetails publicationDateTime="2015-05-14T00:07:34Z" periodicalIndicator="No">
    <ProductFocus primaryIndicator="Yes" focus="Issuer"/>
    <ProductFocus primaryIndicator="No" focus="Region"/>
    </ProductDetails>
```

Sector/Industry (Mandatory for Company/Industry Equity reports)

The Sector Industry element should always be utilized for research products that feature a sector or industry focus. The Product Classifications element may contain zero or more Sector Industry elements. The required code and classification Type attributes combine to specify both the classification system used and the particular sector or industry within that classification system. For example, for computer hardware this could be ICB 9576 or GICS 45204010 or Publisher Defined 12345.

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The Sector Industry element must contain a single name element showing the full name of the sector or industry. This complements the code attribute by making the information more human-readable. The RiXML standard calls for the GICS classification, and is preferred over a Publisher defined classification.

Asset Class, Asset Type and Discipline (Asset Class is Mandatory, others are Recommended)

Asset Class and Type identifiers should be included within the **ProductClassifications** node.

This is an optional container element for all the tags available for use when classifying the research product. In RiXML, the Asset Class, Asset Type, Security Type and Subject elements are children of Product Classifications.

For Economic and Strategy reports it is also recommended that the **DisciplineType** identifiers are included within the **ProductClassifications** node.

Product Category (Recommended)

The **ProductDetails** node must contain one **productCategory** element. It describes the manner or format that information is presented within the research product. The productCategory attribute takes its values from the Product Category enumeration list. (See "Data Dictionary" in the RiXML reference link above)

Subject (Recommended)

The **ProductClassifications** node may also contain more **Subject** elements to indicate the subjects or topics of the research product. The required subject Value attribute takes its values from the Subject enumerator list. (See "Data Dictionary" in the RiXML reference link above)

Menu Codes

Bloomberg provides customized contributor pages on the Terminal for research content, These pages are driven by proprietary menu codes that should be included with the *KeywordClassifications* node(s) of the *ProductClassifications* section in the RiXML document. Multiple *KeywordClassifications* nodes are allowed.

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Title / Headline (Mandatory)

The headline that will appear on the Bloomberg platform should be included in the Title element of the RiXML's file **Content** package. Bloomberg has a limit of 128 characters for the headline. Therefore, if the headline text exceeds 128 characters it will be truncated at 128 characters.

Abstract and Synopsis (Recommended)

The Abstract element provides a summary of the information contained in the product and highlights the salient issues in the document or brief description of an event. Suggested maximum length is 3,000 characters. The Abstract is utilized by Bloomberg to provide a "Summary" of the product's content on the Terminal's research viewer screen and <u>utilization is strongly</u> recommended.

The Synopsis element provides a brief overview of the topics covered in the report. It should be shorter than an abstract but longer than a title. Suggested maximum length is 300 characters. The Synopsis will be utilized by Bloomberg to provide a highly abbreviated display of a report on the Terminal and Mobile research viewers and utilization is strongly recommended.

```
<Content>
```

- <Title>Insights on Flash Memory Prices</Title>
- <SubTitle>Ipods, Jump Drives, and more...</SubTitle>
- <Abstract>

Flash memory is a form of non-volatile memory that can be electrically erased and reprogrammed. Unlike EEPROM, it is erased and programmed in blocks

- </Abstract>
- <Synopsis>

New popular devices alter the landscape for flash memory modules. We discuss investment opportunities and risks...

- </Synopsis>
- </Content>

Analyst (Recommended)

The Person Group element is a container used for specifying product authors. When not tagging for any authors, Person Group may be omitted entirely. However, the <u>tagging of a product's author as well as the *primaryIndicator* for authors is strongly recommended. The sequence attribute is optional.</u>

The Person Group Member element contains one and only one Person element. It represents a single product author. The person ID attribute is required in all use cases. Its purpose is to uniquely identify a particular Person element. The Person element may contain one optional Display Name element. It is a string to be used when displaying the person's full name. For RiMXL, the person ID must be a Universally Unique Identifier (UUID). Note that the UUID for person ID will not be the same as the one used for Organization ID, research ID, product ID, or resource ID.

For Bloomberg, the person ID should ideally be the person's Bloomberg BIO ID #, which can be provided by your Account Representative. However, as this may not always be available, it is recommended that the analyst's name, email and phone numbers be included so that the author can be associated to the product via the Bloomberg BIOP database.

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*Inclusion of this data is what allows for submitted reports to display on the BIO page of the provided author(s).

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<PersonGroup>
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       <PersonpersonID="1559688">
           <FamilyName>Jaramillo</FamilyName>
           <GivenName>Frank</GivenName>
           <MiddleName/>
           <DisplayName>Frank Jaramillo</DisplayName>
       <ContactInfo nature="Business">
           <Email>frank.jaramillo@abc.com</Email>
           <Phone type="Voice" location="Office">
             <CountryCode>+212</CountryCode>
             <Number>8456 6187</Number>
           </Phone>
       </ContactInfo>
       </Person>
   </PersonGroupMember>
   <PersonGroupMember role="Author" primaryIndicator="No" sequence="2">
       <Person personID="1563847">
           <FamilyName>Bazil</FamilyName>
           <GivenName>Noel</GivenName>
           <MiddleName/>
           <DisplayName>Noel Bazil</DisplayName>
       <ContactInfo nature="Business">
          <Email>noel.bazil@abc.com</Email>
          <Phone type="Voice" location="Office">
              <CountryCode>+609</CountryCode>
              <Number>2809 6405</Number>
          </Phone>
       </ContactInfo>
       </Person>
    </PersonGroupMember>
 </PersonGroup>
```

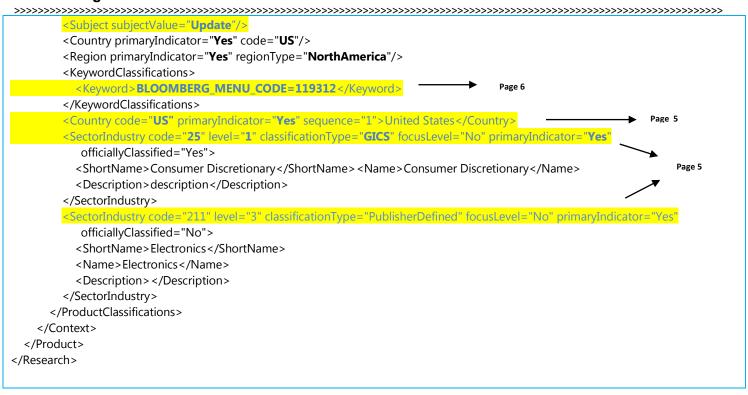
Sample RIXML File Submission (This sample does not contain valid data)

```
Submission without an attachment
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xsi:schemaLocation="http://www.rixml.org/2013/2/RIXML c:\rixml.xsd" researchID="A-4CE8-825A-26AFC96181E9"
createDateTime="2006-07-28T06:54:22" language="eng"><Product productID="B32303F1-6AFC96181E9">
    <StatusInfo statusType="Published" statusDateTime="2006-07-28T06:54:21" currentStatusIndicator="Yes">
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                                                                                                             Page 3
    </StatusInfo>
    <Source>
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        <LogoURL>www.bloomberg.com/blp.gif</LogoURL>
        <OrganizationID idType="VendorCode">BLP</OrganizationID>
        <OrganizationName nameType="Legal">Bloomberg</OrganizationName>
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          <PersonGroupMember sequence="1" primaryIndicator="Yes" role="Author">
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               <GivenName>Joe</GivenName>
               <DisplayName>Joe Analyst</DisplayName>
               <JobTitle>CFA</JobTitle>
                                                                                                   Page 7
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                 <Phone type="Voice">
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                 </Phone>
                 <Description>
                 </Description>
               </ContactInfo>
             </Person>
           </PersonGroupMember>
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             <Person personID="1379">
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               <GivenName>Sam</GivenName>
               <DisplayName>Sam Analyst</DisplayName>
               <JobTitle>CFA</JobTitle>
               <ContactInfo nature="Business" purpose="Operator">
                 <Phone type="Voice">
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                   <Number>(609) 279-3000</Number>
                 </Phone><Description></Description>
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          </Website>
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     </Organization>
   </Source>
   <Content>
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      <Abstract>We are upgrading Company Y to Strong Buy from Underperform. Additional abstract...</Abstract>
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   </Content>
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                                                                                                         Page 4
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```

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         </Weighting>
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         <AssetType assetType="Stock"/>
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         </Recommendation>
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    </SecurityDetails>
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    </IssuerName>
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  </Issuer>
</IssuerDetails>
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             <TimeEntitlement endDateTime=" 2010-07-25T10:33:47 "/>
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                                                                                                  Page 4
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<ProductClassifications>
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  <AssetType assetType="CorporateInvestmentGradeCredit"/>
  <SecurityType securityType="Bonds"/>
  <Discipline disciplineType="Investment"/>
                                                                       Page 6
  <Approach approachType="Technical"/> -
                                                                                                             B-Links // 11
```

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 +44 20 7330 7500
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 +55 113048 4500
 +61 2 9777 8600

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 +852 2977 6000
 +91 22 6120 3600
 +1 415 912 2960
 +65 6212 1000
 +81 33201 8900

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