

22. Appendixes

22.1. XBRL Data Types

The following is a summary of base XBRL data types. Each data type is based on an XML Schema data type:

XBRL Data Type	Description	Sample Data
decimalItemType	Decimal	
floatItemType	Floating point	
doubleItemType	Double	
integerItemType	Integer	
nonPositiveIntegerItemType	Non Positive Integer	
negativeIntegerItemType	Negative Integer	
longItemType	Long Integer	
intItemType	Integer	
shortItemType	Short	
byteItemType	Byte	
nonNegativeIntegerItemType	Non Negative Integer	
unsignedLongItemType	Unsigned Long	
unsignedIntItemType	Unsigned Integer	
unsignedShortItemType	Unsigned Short	
unsignedByteItemType	Unsigned Byte	
positiveIntegerItemType	Positive Integer	
monetaryItemType	Monetary	
sharesItemType	Shares	
pureItemType	Pure	
fractionItemType	Fraction	
stringItemType	String	
booleanItemType	Boolean	
hexBinaryItemType	Hex	
base64BinaryItemType	Base 64	
anyURIItemType	URI	
QNameItemType	Qualified Name	
NOTATIONItemType	Notation	
durationItemType	Duration	
dateTimeItemType	Date/Time	
timeItemType	Time (HH:MM:SS)	
dateItemType	Date/Time	
gYearMonthItemType	Year-Month (YYYY-MM)	
gYearItemType	Year (YYYY)	
gMonthDayItemType	Month-Day (MM-DD)	
gDayItemType	Day (DD)	
gMonthItemType	Month (MM)	
normalizedStringItemType	Normalized string	
tokenItemType	Token	
languageItemType	Language	
NameItemType	Name	
NCNameItemType	NC Name	

22.2. XBRL Arcroles

The following is a summary of arcroles allowed in FRTA compliant taxonomies. These may be supplemented by arcroles contained in the link role registry. Each arcrole has the following URI appended to the beginning of the arcrole:

<http://www.xbrl.org/2003/arcrole/>

Arc Role Type	Application Arc Role Description
labelArc	Concept to Label
referenceArc	Concept to Reference
presentationArc	Parent to Child
calculationArc	Summation to Item Summed
definitionArc	General to Special
definitionArc	Essence to Alias

22.3. Linkbase Reference Roles

The following is a summary of linkbase reference roles allowed in FRTA compliant taxonomies. These roles may be supplemented by roles from the link role registry. Each linkbase reference role has the following URI appended to the beginning of the role: <http://www.xbrl.org/2003/role/>

Role Type	Application Role Label
calculationLinkbaseRef	Calculation Linkbase
definitionLinkbaseRef	Definition Linkbase
labelLinkbaseRef	Label Linkbase
presentationLinkbaseRef	Presentation Linkbase
referenceLinkbaseRef	Reference Linkbase

22.4. Label Roles

The following is a summary of label roles allowed in FRTA compliant taxonomies. These can be supplemented by roles in the link role registry. Each label role has the following URI appended to the beginning of the role: <http://www.xbrl.org/2003/role/>

Role Type	Application Role Label
label	Standard Label
terseLabel	Terse Label
verboseLabel	Verbose Label
positiveLabel	Positive Label
positiveTerseLabel	Positive Terse Label
positiveVerboseLabel	Positive Verbose Label
negativeLabel	Negative Label
negativeTerseLabel	Negative Terse Label
negativeVerboseLabel	Negative Verbose Label
zeroLabel	Zero Label
zeroTerseLabel	Zero Terse Label
zeroVerboseLabel	Zero Verbose Label
totalLabel	Total Label
periodStartLabel	Period Start Label
periodEndLabel	Period End Label
documentation	Documentation
definitionGuidance	Definition Guidance
disclosureGuidance	Disclosure Guidance
presentationGuidance	Presentation Guidance
placementGuidance	Placement Guidance
measurementGuidance	Measurement Guidance
commentaryGuidance	Commentary Guidance
exampleGuidance	Example Guidance

22.5. Reference Roles

The following is a summary of reference roles allowed in FRTA compliant taxonomies. Each reference role has the following URI appended to the beginning of the role: <http://www.xbrl.org/2003/role/>

Role Type	Application Role Label
reference	Standard reference
definitionRef	Definition of concept
disclosureRef	Disclosure requirement, general
mandatoryDisclosureRef	Disclosure mandatory
recommendedDisclosureRef	Disclosure recommended

22.6. References to Documentation

Financial Reporting Taxonomy Architecture, Candidate Recommendation

Financial Reporting Instance Standards, Internal Working Draft

IFRS-GP Taxonomy

Phillip Engel, Walter Hamscher, Geoffrey Shuetrim, David von Kannon, Hugh Wallis
Extensible Business Reporting Language (XBRL) 2.1 Specification
<http://www.xbrl.org/2003/xbrl-2003-12-31.doc>

Fingar, Peter (June 1998) a CEO's Guide to eCommerce Using Object-Oriented Intelligent Agent Technology. pfingar@acm.org
<http://home1.gte.net/pfingar/eba.htm>

22.7. About the Author

Charles Hoffman, CPA, is credited as being the "father of XBRL." Charlie, a member of the American Institute of Certified Public Accountants (AICPA), brought the idea of what was to become XBRL to the AICPA. Charlie is author of the book "XBRL Essentials", a non-technical guide to XBRL. He was co-editor of the first XBRL taxonomy, Financial Reporting of Commercial and Industrial Companies, US GAAP (July 2000). He is playing a major role in creating the taxonomy for financial reporting under International Financial Reporting Standards (IFRS-GP). He is a member of the XBRL International Specification and Domain working groups. Charlie is co-author of the "Financial Reporting Taxonomies Architecture", the "Financial Reporting Instance Standards" and a contributor to the XBRL 2.1 specification.

Prior to his involvement with XBRL, Charlie served as an auditor for what was then Price Waterhouse, as financial officer for a number of companies, and as an accounting software implementation consultant. In 1997, Charlie was the recipient of the AICPA Innovative User of Technology award. He was named by Accounting Technology as one of the one hundred most influential people in the accounting profession.

Charlie is currently Director of Innovative Solutions for UBmatrix LLC (<http://www.UBmatrix.com>). He is a graduate of Pacific Lutheran University with

both a BA in Business Administration and concentration in accounting and an MBA with a focus on management information systems and world class manufacturing techniques.