## Impact of Errors in XBRL Reporting

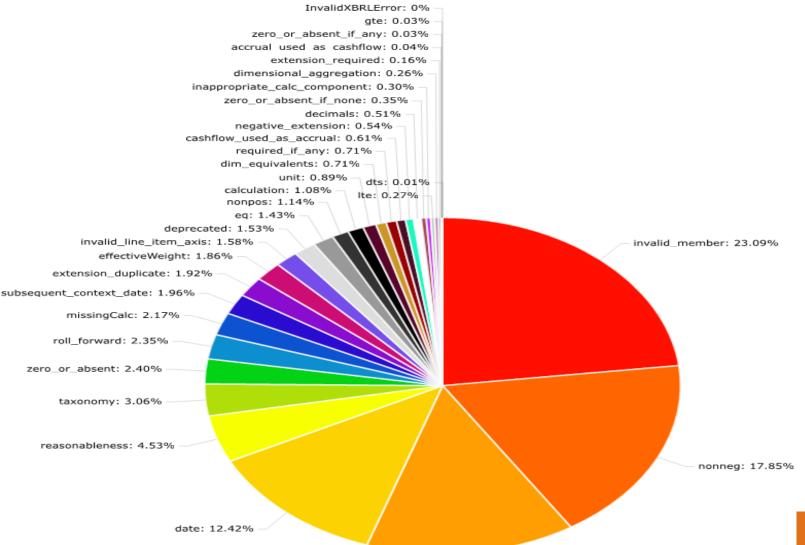


#### October 29, 2014

- Jaret Klekota, XBRL Services Leader, Ernst & Young LLP
- Ami Beers, Senior Technical Manager, Business Reporting, Assurance and Advisory Services and XBRL, AICPA
- Michelle Savage, VP, Communication, XBRL US

## Data Quality Issues





## Invalid Member-Axis Combination Characteristic to Common Theme



Invalid Member: The categories in a table need to make sense. If breaking down revenue by country the categories should be countries.



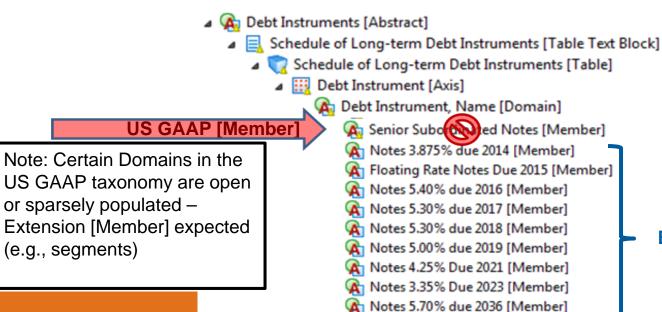
	USA	Japan
Sales	100M	35M
COGS	80M	20M

	USA	Fair Value
Sales	100M	15M
COGS	80M	10M

## Invalid Member-Axis Combination Unique Member Expected



Invalid Member: If breaking down debt by instrument, the members need to represent the entity's debt instruments, not US GAAP taxonomy generic members.



Notes 5.70% due 2037 [Member]

**Extensions - expected** 

xbrl.us

## Negative Value [Input] Issue Defined



Non-Negative: Certain items/tags are not expected to be entered as a negative in the XBRL (in most circumstances).

- Assets
- Common Stock
- Additional Paid in Capital
- Interest Expense
- Repayment of Debt

BIG PROBLEM in XBRL filings -- Results when companies concentrate on the rendering (e.g., HTML) of a reported number as opposed to its underlying meaning.



## Negative Value [Input] Exceptions



Statement	If the definition contains this language it probably can be negative
Cash Flow	Increase/Decrease
Cash flow	Provided by /Used in
Cash flow	Net
Cash flow	Change in
Cash flow	Proceeds from /Payments for
Cash flow	Proceeds from/Payments to
Income statement	Gain/Loss
Income statement	Profit/Loss
Income statement	Income/Expense
Income statement	Per share [income/loss]
Statement of Stockholders Equity	Equity /Deficit
Statement of Stockholders Equity	Retained Earnings /Deficit

## Negative Value [Input]

#### Accounting Knowledge

- Consider modeled balance type of the element -- is the value being tagged normally a debit or credit
- Interest Expense is normally a debit

	Balance type				
	<u>Debit</u>	<u>Credit</u>			
HTML value					
Debit	+1	-1			
Credit	-1	+1			

- Consider the definition of the element to determine if the value can be negative or not.
- The SEC specifically address this issue because it is so common. See <a href="http://www.sec.gov/spotlight/xbrl/staff-review-observations-061511.shtml">http://www.sec.gov/spotlight/xbrl/staff-review-observations-061511.shtml</a>.



## Negative Value [Input] Accounting Relationships



	StockholdersEquity	Stater	mentEquity	ComponentsAxis		reasuryStockMembe
			<u> </u>			
	CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (USD \$) In Thousands, unless otherwise specified	Total	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock
$\rightarrow$	Beginning Balance at Dec. 31, 2008	\$ 1,181,769	\$ 1,665	\$ 856,021	\$ 1,864,257	\$ (1,459,211)
	Comprehensive income:					
	Net income	27,684			27,684	
	Other comprehensive income (loss), net of tax	32,086				
	Comprehensive income	59,770				
	Dividends on common stock (\$0.52 per share)	(47,758)			(47,758)	
	Restricted stock grants (685,650 shares 2011, 806,428 shares in 2010 and 1,174,232 shares in 2009			(9,629)	(14,636)	24,265
	Forfeitures of restricted stock (25,404 shares in 2011, 24,566 shares in 2010 and 22,990 shares in 2009 )			359	115	(474)
	Exercise of stock options (12,000 shares issued in 2010 and 51,233 shares issued in 2009, respectively)	578			(480)	1,058
	Stock-based compensation	5,795		5,778	17	
	Net tax benefit excess (shortfall) from stock-based compensation	(402)		(402)		
	Allocation of ESOP stock	8,862		5,535		
	Ending Balance at Dec. 31, 2009	1,208,614	1,665	857,662	1,829,199	(1,434,362)

## Negative Value [Input] Summary



- General Rule: XBRL inputs are [Absolute] Values
  - Think => Accounting system
  - ➤ Values = Debits and Credits, **NOT** positives or negatives
  - ➤ How you Present Data depends on Purpose/Use of Report (report writer/rendering engine)
  - > Definitions can dictate if Input can be Positive or Negative
    - Example:
      - $\underline{Adjust ments To Additional Paid In Capital Tax Effect From Share Based Compensation}$
      - o Defined as: <u>Tax benefit</u> associated with any equity-based compensation plan other than an employee stock ownership plan (ESOP). The tax benefit results from the deduction by the entity on its tax return for an award of stock that exceeds the cumulative compensation cost for common stock or preferred stock recognized for financial reporting. Includes any resulting tax benefit that exceeds the previously recognized deferred tax asset (excess tax benefits).
      - o Definition dictates that this is only a TAX BENEFIT



## Required Value Not Reported Document Entity Information (DEI)



 Certain facts under a given set of circumstances are required to be reported in a 10-Q or 10-K filing to the SEC (refer to EFM 6.5.20 and .21)

Element	10-K, 10-KT	10-Q, 10-QT	20-F	40-F	6-K, N-CSR, N-Q, NCSRS	10, S-1, S-3, S-4, S-11, POS AM	8-K, F-1, F-3, F-10, 497, 485BPOS
EntityRegistrantName	X	X	x	x	х	х	х
EntityCentralIndexKey	X	X	X	×	x	x	х
EntityCurrentReportingStatus	X		х	x			
EntityVoluntaryFilers	x						
CurrentFiscalYearEndDate	X	x	x	x	х		
EntityFilerCategory	X	x	x			×	
EntityWellKnownSeasonedIssuer	X		х				
EntityPublicFloat	X						
DocumentFiscalYearFocus	X	x	×	x	x		
DocumentFiscalPeriodFocus	X	х	х	×	X		

## Concept Should be Empty



CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (USD \$) In Thousands, unless otherwise specified	Total	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock
Beginning Balance at Dec. 31, 2008	\$ 1,181,769	\$ 1,665	\$ 856,021	\$ 1,864,257	\$ (1,459,211)
Comprehensive income:					
Net income	27,684	8	<b>⊗</b>	27,684	8
Other comprehensive income (loss), net of tax	32,086	8	<b>⊗</b>	8	8
Comprehensive income	59,770	8	8	<b>⊗</b>	8
Dividends on common stock (\$0.52 per share)	(47,758)	8	<b>⊗</b>	(47,758)	<b>⊗</b>

## Calculation Anomalies (don't work in XBRL)



Calculation Check	Logic
Roll Forward Calculation	Opening Balance + Movement = Closing Balance
Data calculates across members on a dimension	Business Segment 1 + Business Segment 2 + Business Segment 3 = Default Total
PerShare Calculations	Net Income / Weighted Average Basic Shares = Earnings Per Share, Basic

## Missing Calculation Relationships



- The EFM in rule 6.15.2 requires that calculation linkbase relationships are defined when calculations are expressed in the filing.
- The SEC does not automatically validate this rule.
- The SEC has sent "Dear CFO" letters to certain Companies around this issue

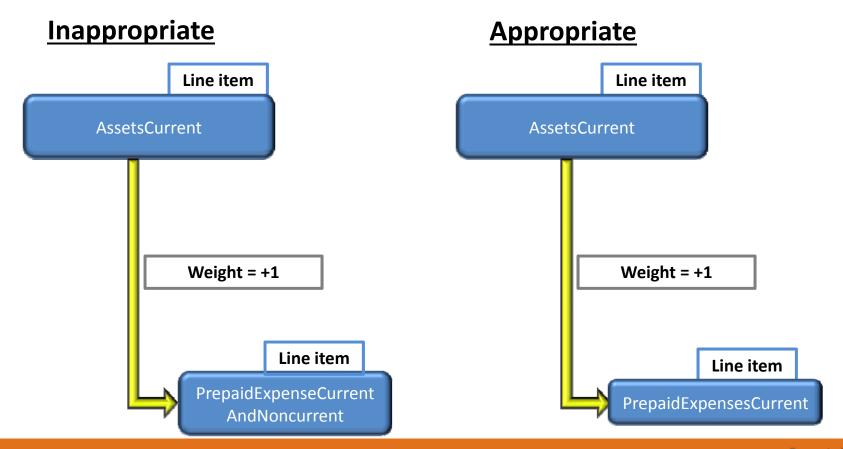
## Incorrect Calculation Weight XBRL Rule



	Parent – Balance type				
	Debit Credit				
Child – Balance type	<u>Calculation Weight</u>				
Debit	+1 -1				
Credit	-1 +1				

### **Inappropriate Calculation Component**





## **Calculation Consistency**



#### Do Not Foot

Gai	culation Relationships	F Y 13
	Earnings per share, Basic	1.30
+1	Income (Loss) from Discontinued Operations, Net of Tax, Per Basic Share	.01
+1	Income (Loss) from Continuing Operations, Per Basic Share	1.28

Do not resolve calculation inconsistencies by inserting digits that are not reported in the printed financial statements.



## Calculation Consistency Missing Values



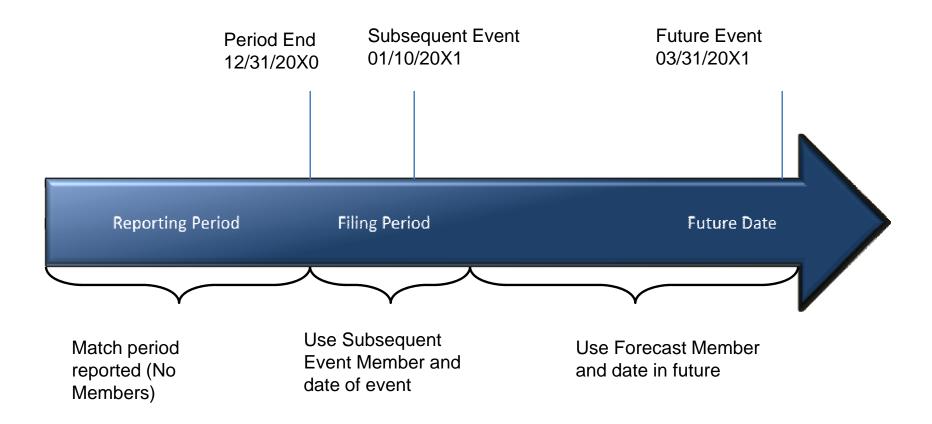
Calculation Relationships	FY13	FY12	FY11	FY10	FY09
Operating Income (Loss)	1,040	960	880	800	720
+1 Revenues	1,300	1,200	1,100	1,000	900
-1 Costs and Expenses	260	240	220		

Do not resolve a calculation inconsistency by inserting a value that is not reported in the printed financial statements.



### Dates Subsequent to the Period Reported





## Deprecated Concepts Purpose and Need



- Concepts are deprecated for the following reasons:
  - Changes in accounting standards
  - Removal of duplicates with existing concepts
  - Removal of erroneous elements from the taxonomy
  - Creation of new concepts that replace the deprecated item with certain key corrections
- A company must check their filing does not include deprecated elements

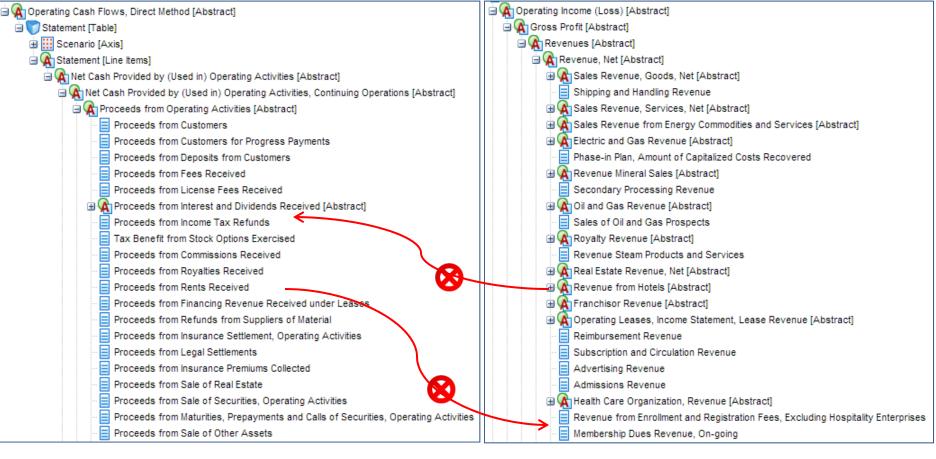


### Cash Flow represented as an Accrual



#### Cash Flow - Cash Proceeds- Debit Items

#### Income Statement - Revenue - Credit Items



## **Appropriate Decimals**



#### **Expected Decimals**

Scale	# in Financials	# in XBRL	Decimals
Actual	123,867,236.566	123,867,236.566	inf
2 decimal places	123,867,236.57	123,867,236.57	2
0 decimal places	123,867,237	123,867,237	0
Thousands	123,867	123,867,000	-3
Millions	124	124,000,000	-6

#### **Unexpected Decimals**

Scale	# in Financials	# in XBRL	Decimals
Millions	124	123,867,000	-6
4 decimal places	23	23.0000	4
Millions	124	124,000,000	inf

## Unit Validation Unit Type Registry (UTR)



unitId	unitName	nsUnit	statu	s versionDate	itemType	itemTypeDat	e symbol	definition	baseStandard	conversionPresentatio	conversionContent
acre	Acre	http://www.xbrl.org/2009/utr	CR	2010-10-31	arealtemType	2009-12-16	a	Acre	Customary	404686+m <sup>2</sup>	4046.86 m 2
sqft	Square Foot	http://www.xbrl.org/2009/utr	CR	2010-10-31	arealtemType	2009-12-16	ft²	Square Foot	Customary	0.09290304 + m <sup>2</sup>	0.09290304 m 2
sqmi	Square Mile	http://www.xbrl.org/2009/utr	CR	2010-10-31	arealtemType	2009-12-16	mi <sup>2</sup>	Square Miles	Customary	2509988.110336 · m <sup>2</sup>	2589988.110336 m 2
sqyd	Square Yard	http://www.xbrl.org/2009/utr	CR	2010-10-31	arealtemType	2009-12-16	yd2	Square Yard	Customary	0.83612736 • m <sup>2</sup>	0.83612736 m 2
Boe	Barrel of Oil Equivalent	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyItemType	2009-12-16	Boe	Barrel of Oil Equivalent	Customary	6117863200 • J	6117863200)
Btu	British Thermal Unit	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyltemType	2009-12-16	BTU	British Thermal Unit	Customary	1.0545 • 103 • /	1.0545 10 3 ]
ft_lb	Foot-Pound	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyItemType	2009-12-16	ft-lb	Foot-Pound Force	Customary	1.3558179483314+/	1.3558179483314]
MBoe	Thousand Barrels of Oil Equivalent	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyItemType	2009-12-16	MBoe	Thousand Barrels of Oil Equivalent	Customary	6.1178632 • 10 12 • /	6.1178632 10 12 ]
Mcfe	Thousand Cubic Foot Equivalent	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyItemType	2009-12-16	Mcfe	Thousand Cubic Foot Equivalent	Customary	1087200000 + J	1087200000]
MMBoe	Millions of Barrels of Oil Equivalent	http://www.xbrl.org/2009/utr	CR	2010-10-31	energyItemType	2009-12-16	ММВое	Millions of Barrels of Oil Equivalent	Customary	1355-8179483314003 • /	1355.8179483314003]
MMBTU	Millions of BTU	http://www.xbrl.org/2009/utr	CR.	2010-10-31	energyItemType	2009-12-16	MMBTU	Millions of BTU	Customary	1.0545 • 10 9 • /	1.0545 10 9 ]
ft	Foot	http://www.xbrl.org/2009/utr	CR	2010-10-31	lengthItemType	2009-12-16	ft	Twelve Inches	Customary	0.3048 • m	0.3048 m
in	Inch	http://www.xbrl.org/2009/utr	CR	2010-10-31	lengthItemType	2009-12-16	in	Inch	Customary	25.4 • 10 · 3 • m	25.410-3m
mi	Mile	http://www.xbrl.org/2009/utr	CR	2010-10-31	lengthItemType	2009-12-16	mi	5280 Feet	Customary	1609.344 * m	1609.344 m
nmi	Nautical Mile	http://www.xbrl.org/2009/utr	CR	2010-10-31	lengthItemType	2009-12-16	nmi	1.15078 Miles (One Minute of Arc Latitude)	Customary	1852 • m	1852 m
yd	Yard	http://www.xbrl.org/2009/utr	CR	2010-10-31	lengthItemType	2009-12-16	yd	Three Feet	Customary	0.914400000 • m	0.914400000 m
lb	Pound	http://www.xbrl.org/2009/utr	CR	2010-10-31	massitemType	2009-12-16	lb	Pound of Mass, as Used in Commerce (http://en.wikipedia.org /wiki/Pound_(mass)#Use_in_Commerce)	Customary	0.45359237 • kg	.45359237 kg
oz co	Ounce	http://www.xbrl.org/2009/utr	CR	2010-10-31	massitemType	2009-12-16	0Z	US Ounce	Customary	0.028 • kg	0.028 kg
ozt	Troy Ounce	http://www.xbrl.org/2009/utr	CR		massitemType	2009-12-16	ozt	Troy Ounce	Customary	0.0311034768 • kg	0.0311034768 kg
T	Ton	http://www.xbrl.org/2009/utr	CR	The second second second second	massitemType	2009-12-16	T	Ton	Customary	907.18474 • kg	907.18474 kg
hp	Horsepower	http://www.xbrl.org/2009/utr	CR	and the first terms of the family section in	powerItemType	2009-12-16	hp	Horsepower (Foot-pound per Second)	Customary	745.7 • W	745.7 W
bbl	Barrel	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	bbl	Barrel (of Oil)	Customary	0.1589873 • m <sup>3</sup>	0.1589873 m 3
ft3	Cubic Foot	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	ft <sup>3</sup>	Cubic Foot	Customary	0.028316846592 • m <sup>3</sup>	0.028316846592 m3
gal	Gallon	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	gal	US Gallon	Customary	0.003785412 • m <sup>3</sup>	0.003785412 m 3
MBbls	Thousand Barrels	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	MBbls	Thousands of Barrels (of Oil)	Customary	158.98729493 + m <sup>3</sup>	158.98729493 m 6
Mcf	Thousands Cubic Feet	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	Mcf	Thousands of Cubic Feet	Customary	28316.846592 • m <sup>3</sup>	28316.846592 m 3
MMBbls	Million Barrels	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	MMBbls	Millions of Barrels (of Oil)	Customary	158987.294933 · m <sup>3</sup>	158997.294933 m 3
MMcf	Millions Cubic Feet	http://www.xbrl.org/2009/utr	CR	2010-10-31	volumeItemType	2009-12-16	MMd	Millions of Cubic Feet	Customary	28316.846592 • m <sup>3</sup>	28316.846592 m 3

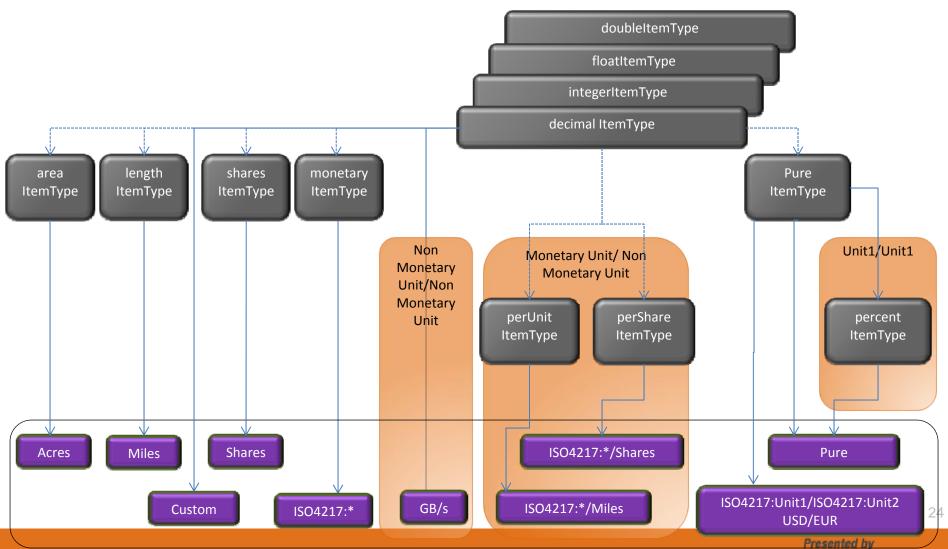
## Unit Validation Rules



- If a datatype (shown as "itemType" in the listing) is listed in the units registry, then only the units associated with that datatype in the registry can be used.
- The filer should not create extension units for units already defined in the registry.
- The filer can use units in the registry for datatypes not in the registry.
- The filer can create an extension unit for datatypes not in the registry.

## Unit Validation Type to Unit





## Automated v. Manual Validation Comparison



- Automated validation looks at the actual XBRL filing
  - Facts (values and meta data)
  - Tags selected
  - Extension taxonomy relationships
- Manual review
  - Determine XBRL matches HTML
    - Completeness
    - Accuracy
    - Correct concepts (identified, selected)



### **Automated Validation**



- XBRL Specification Validation
- SEC EDGAR Filer Manual Validation (EFM)
- US GAAP Taxonomy Validation
- Manual Review

## Specification Validation



#### Extensible Business Reporting Language (XBRL) 2.1

RECOMMENDATION - 2003-12-31 + Corrected-Errata-2012-01-25 Edited and Updated 2012-01-15

This version:

XBRL-Recommendation-2003-12-31+Corrected-Errata-2012-01-25.htm

is a non-normative version of this specification. The NORMATIVE version is in the file

XBRL-RECOMMENDATION-2003-12-31+Corrected-Errata-2012-01-25.rtf

#### **Editors**

Name	Contact	Affiliation
Phillip Engel	phillip.engel@xbrl.us	XBRL US (formerly of Morgan
		Stanley and previously KPMG LLP)
Walter	HamscherW@sec.gov	US SEC (formerly of Standard
Hamscher		Advantage)
Geoffrey	geoff@galexy.net	Galexy Pty. (formerly of KPMG LLP)
Shuetrim		
David vun	dvunkannon@deloitte.com	Deloitte (formerly of
Kannon		PricewaterhouseCoopers and
		previously KPMG LLP)
Hugh Wallis	hughwallis@xbrl.org	XBRL International Inc. (formerly of
		Hyperion Solutions Corporation)

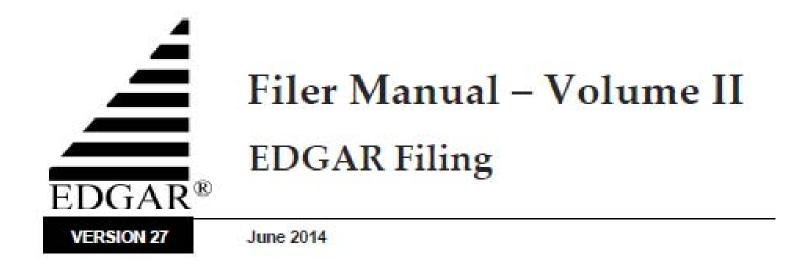
#### Contributors

Name	Contact	Affiliation
Charles Hoffman	choffman@edgar-online.com	EDGAR Online (formerly of UBmatrix)
Campbell Pryde	campbell.pryde@xbrl.us	XBRL US (formerly of Morgan Stanley and previously of KPMG LLP)
Herm Fischer	fischer@markv.com	Mark V Systems (formerly of UBmatrix)



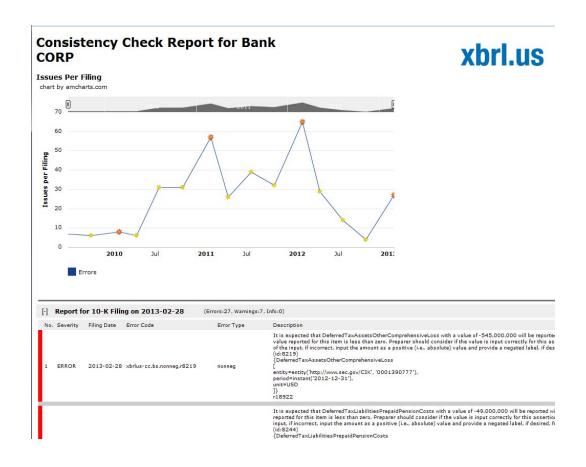
## Edgar Filing Validation





### **US GAAP Validation**





## **US GAAP Validation**



#### XBRL US – Consistency Check Logic Set

1)	An Invalid Member was used on an Axis	17)	A value reported is calculated incorrectly
2)	Negative Value Check	18)	The unit of measure is not valid for the concept item type
3)	Required Value is not Reported	19)	A value reported as a line item default does not match its
4)	Incorrect Date Reported		dimensional equivalent
5)	The value reported varies considerably from the value expected	յ20)	Value is Required if Another Value is Reported
6)	Concepts selected have been outdated or replaced by	21)	A Cash Flow is Represented as an Accrual Value
	taxonomy changes	22)	Negative Value Check on an Extension
7)	Value Reported When the Value Should be Zero or Empty	23)	Incorrect Decimals Defined
8)	Roll forward Calculates Incorrectly	24)	The Value Should be Zero or Empty if Another Value is Not
9)	Effective Calculation not Provided		Reported
10)	The Period Associated with the Value is Subsequent to the	25)	A calculation includes an inappropriate component
	Period Reported	26)	Not Less Than Equal to a Related Disclosure
11)	Unique Company Element Created for Existing Base Taxonomy	27)	Line Item aggregation across Axis is greater than Default value
	Element	28)	Element in the Taxonomy is Ambiguous
12)	Incorrect Calculation Weight Used	29)	An Accrual Value is Represented as a Cash Flow Value
13)	An Invalid Line Item was used with the Axis	30)	The Value Should be Zero or Empty if Another Value is
14)	A deprecated tag has been used in the filing		Reported
15)	Not Equal to Matching Item Check	31)	Not Greater Than Equal to a Related Disclosure
16)	Positive Value Check		

## Validating XBRL Filings



- Use both
  - Automated Validation
  - ➤ Manual Review Techniques
- Validate
  - Extension Taxonomy
  - Instance Document
- Validate throughout the creation process
  - Early and Often





### **FASB Implementation Guides**



## Taxonomy Implementation and Reference Guides

FASB website www.fasb.org





#### Disclaimer

The views expressed in this presentation are that of the presenter. Official positions of the FASB are reached only after extensive due process and deliberations.



### **Taxonomy Implementation and Reference Guides**

- Selected topic areas
- Significant Accounting Standards Updates
- Reference





### **Taxonomy Implementation Guides**

### Selected topic areas

- Segment Reporting (2013 & 2014)
- Subsequent Events (2013 & 2014)
- Notional Amount Disclosures (2014)
- Insurance Industry: Concentration of Credit Risk Disclosures (2013 & 2014)
- Insurance Industry: Reinsurance—Related Disclosures (2013)
- Stockholders' Equity (in process)
- Pensions (in process)
- Fair Value (in process)





### **Taxonomy Implementation Guides**

### Significant Accounting Standards Updates

- Liquidation Basis of Accounting (2014)
- Other Comprehensive Income (2015 in process)
- Disposal Groups and Discontinued Operations (2015 Proposed)
- Balance Sheet Offsetting (in progress)
- Revenue from Contracts with Customers (in progress)





### **Taxonomy Reference Guides**

#### Reference

- Definition Components & Structure Style Guide
- Period Type Selection Guide (Proposed)
- Balance Type Selection Guide (in progress)







XBRL US GAAP
Certificate Program

XBRL US, the original US GAAP Taxonomy creator, developed the certificate with input from the FASB, accounting firms, XBRL providers and the AICPA, which has developed and delivered accounting training for decades.



## Members Expressed a Need for Expert Knowledge

- Obtain knowledge quickly and efficiently
- Ability to demonstrate XBRL knowledge obtained
- In-depth training provided at a participants own pace and timeframe
- Hands-on exercises allow for implementation of knowledge

Survey of over 1,000 members of AICPA and XBRL US



## What Can You Expect From the Program?

- Approx. 40 hours of online learning (cpe)
- In depth program to help certificate holders build XBRL financial statements
- Comprehensive review of XBRL for all US GAAP reporting
- Participants earn the Certificate of Educational Achievement in XBRL upon completion



### **Content of Program**

Wide breadth of coverage, with individual modules each approximately 50 minutes in length including:

- 10 fundamentals
- 3 statements
- 22 detailed footnote tagging modules (13 required for Certificate, 9 bonus optional modules)
- Simulation exercises for a real-life experience of tagging using XBRL software tools (sponsored by YBRL Software Vendors)

## Sample of modules included in this program:

#### Modules

- Understanding XBRL and the US GAAP Taxonomy
- Reviewing and validating XBRL documents
- Creating the extension taxonomy and building the instance document
- Transitioning to new release of the taxonomy
- Using the SEC Edgar Filer Manual
- Managing statements
- Detailed footnote tagging in 22 different subject areas

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