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Combating Everyday Data Problems with XBRL, Part 2

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For most financial professionals, the thought of combating everyday data problems using XBRL, the eXtensible Business Reporting Language, may seem a little unusual. Conditioned to re-keying data from disparate data stores and reports into spreadsheets as a normal part of their jobs, financial professionals have become accustomed to dealing with the additional time

and errors introduced with manual data manipulation outside financial applications. Fortunately, this situation is about to change.

Last month's column introduced common problems associated with living in an application-specific data model and discussed how using an XBRL-Standards model would help to solve those problems, which include:

- Data is replicated at the application level, resulting in multiple versions of the truth.
- In the financial closing process, elimination information is often obtained manually.
- Data validation processes are often conducted manually.
- Business rules are typically embedded within specific applications.

- Controls, like business rules, are embedded within specific applications or applied manually.

This month, we will explore several more common problems that occur when financial professionals use an application-specific approach to business reporting.

The Problems Continue

In an application-specific environment, business reporting applications typically focus on completing one basic task, such as the valuation of inventory. When companies need to reuse the information from specific applications in other reporting environments, such as budgets and forecasts, they often use outside applications such as spreadsheets to bridge the data gap between the

source and use of the data. Here are a few of the problems that are introduced when companies attempt to reuse data.

Battleship Analytics. The data within applications today is defined by its physical location rather than by its definition or nature. You can see this by looking at the macros in your Excel worksheets, written using cell labels, similar to *Battleship*, the Milton Bradley game many of us played as kids. For example, “=(C17/C28)” is entered as a current ratio macro. As a result, when additional rows are added to this example worksheet, the relationships of the cells are adjusted and the macro definitions are no longer relevant. Today, analytics are embedded within applications and aren't reusable by other applications or worksheets.

Poor Connectivity. Information isn't connected to other related resources across applications once data is removed from its “source” application. There is zero connectivity to its rules, references, instructions, or other resources within the enterprise or market. This connectivity is critical when considering the application of internal and/or external compliance rules and regulations to specific

data and/or events. Today, this poor connectivity results in the manual application of compliance rules and regulations, which is expensive.

Problem Solutions

“Logical” Analytics. The shared-data context provided by XBRL taxonomies allows for the logical representation of data both within and across applications. Analytics, business rules, and macros can be defined based on these common data definitions (“logical”) rather than on the physical location of data within a single application. Going back to our Excel macro example, “=(Assets Current/LiabilitiesCurrent)” could be used to define the same current ratio macro. This approach defines analytics, business rules, and macros based on the common data definitions; is applicable within spreadsheet applications; and can be shared across applications—from spreadsheets to ERP systems to Business Intelligence applications. Among other benefits, this enables:

- The application of business rules to data from disparate sources, enabling rules-based processes;
- Greater efficiency in applying changes to either the data or the analytics;
- Greater transparency and control over enterprise business rules; and
- Greater use of analytics against a significantly broader pool of data (both from internal and external sources).

You can begin to see the initial demonstrations of this concept within the EDGAR-Online I-Metrix™ product offering, which allows users to define Excel macros based on common taxonomy definitions and share these macro concepts with other users working in other spreadsheets. See www.edgar-online.com/products/

imetrix.aspx for more details.

Persistent Connectivity. Information is connected to other related resources across applications regardless of the physical location of the data. The shared-data context provides a logical connectivity that is persistent across all applications and that provides persistent connectivity of data definitions to business rules, business policies and procedures, regulatory compliance requirements, presentation concepts, and virtually any form of references. The connectivity allows significant automation and cost reduction for many of the analysis, presentation, and validation process efforts that are conducted manually today. You can observe this connectivity within U.S. GAAP taxonomies and the connectivity of specific taxonomy ele-

ments to FASB, SEC, etc., references.

For a list of XBRL-enabled software applications, see www.xbrl.org/tools. This will show you the quickest path to understanding how XBRL is transforming corporate reporting processes while increasing process effectiveness *and* decreasing process costs. Table 1 shows a comparison of typical problems faced in business reporting scenarios using present application-specific solutions and how things would be different in an XBRL-Standards solution model.

Why Wait? Start Now

Business reporting is all about communication. In looking at the SEC’s XBRL Voluntary Filing Program, companies often see an initial cost burden and little in the way of bene-

TABLE 1 TYPICAL REPORTING SCENARIO VS. XBRL MODEL

<u>Application-Specific Solution</u>	<u>XBRL-Standards Solution</u> (useful across applications)
1. Language labels are applied at the application level.	1. Language labels are defined in taxonomies and are useful when applied at the domain level across applications.
2. Linkages of data to company policies are manual and/or application specific, and, in most cases, inadequate.	2. Linkages of data to company policies are defined in taxonomies and can be applied across applications.
3. Data models are application specific.	3. Data models are articulated in domain-level taxonomies, which can be applied across applications. Taxonomies are developed in component architecture to promote reusability.
4. Data flows in one direction; the audit trail is lost.	4. Audit trails are automated and persistently maintained.
5. Reporting (book, tax, management) is not reconcilable.	5. Provides for drill down and drill around; reporting is reconcilable.
6. Communication is bottom-up only.	6. Communication is top-down and bottom-up.
7. Investment is lost when systems change.	7. Investment is maintained when systems change.

fits. The primary benefits in the program are enhanced communication with the analyst community and reduced report preparation costs.

Enhanced communication is achieved as the company tags its business reports rather than a third-party distributor or intermediary doing so, as is the case today. Any company that doubts this benefit need only ask its analysts where they obtain the data that populates the valuation models on the company. The analyst community purchases tagged data from intermediaries. Readers who doubt that variances exist just need to attempt to reconcile company reports with the data provided by aggregators/distributors. If anyone tags a company report, who should it be?

Lower costs are achieved as the company provides relevant data to the market without incurring the requisite costs associated with the presentation format. Gartner, Forrester, and other analysts estimate that the costs of report preparation can be reduced by 30% to 70% using XML formats such as XBRL. Because XBRL is a data-centric Internet format that has zero presentation attributes, it generates none of the related costs. External financial data, such as that contained within SEC filings, tagged under the control of a company's CFO, holds a distinct advantage over data procured from third-party data distributors and aggregators. The data will remain as determined by the company, lessening the probability that the information will be misinterpreted due to distortions applied by third parties.

Want to learn more about how XBRL can help you? Please see the IMA Centre of Excellence's Technology Enablers Web page, available at www.imanet.org, or visit www.xbrl.org. ■

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