

Integrating XBRL into the Accounting Curriculum: A Process Flowchart

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Abstract

The eXtensible Business Reporting Language or XBRL will be the required reporting language for the 500 largest companies for Securities and Exchange Commission (SEC) filings, and for Federal Deposit Insurance Corporation (FDIC) reports. In addition to required reporting, XBRL is likely to become the *lingua franca* of business-to-business transactions or simply how financial information is shared among trading partners. While the XBRL topic has been researched and written about extensively, the researchers sought to fill a gap between industry and the classroom. A process flowchart was developed to facilitate an understanding of the steps involved to convert traditional financial statements into XBRL rendered financial statements.

Introduction

Accounting is “the language of business” and, subsequently, this language is predicated on the construction and dissemination of reports. All businesses must prepare reports for a variety of internally and externally constituents and stakeholders to convey important financial information. Traditionally, business reports have been a fundamental component of this vernacular. Accounting reports were originally prepared manually and more recently have been computer generated through the use of accounting information systems. In turn, the reporting process is a major element of any accounting curriculum and integrated into every accounting course. The focus placed on understanding and preparing reports is essential to not only students in the accounting discipline, but also students in any college of technology discipline.

The eXtensible Business Reporting Language (XBRL) is an extension of this reporting requirement for many larger publicly traded companies and is set to revolutionize the reporting practices for the majority of firms in the near future. This technology permits public companies to file their financial statements in an electronic format based on a uniformed classification system. Currently, the primary repository of financial statement information for publicly held companies on the Internet is the Security and Exchange Commission’s Electronic Data Gathering and Retrieval Database (EDGAR). EDGAR contains the financial report filings of U.S. publicly held companies.

The SEC will require all publicly traded companies to file statements via XBRL by the year 2011 (Webcpa, 2009).

According to a survey by Defelice, 2010, most US public companies that will soon be required to file their financial statements in XBRL format are taking the necessary steps to be prepared for the requirement. Defelice's also reports that personnel within the organizations have "at least a basic knowledge of the extensible business reporting language". The authors of this paper intend to fill a gap between the accounting industry and the classroom. A process flowchart was developed to facilitate an understanding of the steps involved to convert traditional financial statements into XBRL rendered financial statements. In addition to required reporting, XBRL is likely to become the lingua franca of business-to-business transactions, for example how financial information is shared among trading partners. The ease of availability of financial information affects a variety of organizations and the people within these organizations. The uniformed information, made readily available via the web to interested parties, is more conducive for comparison and analytics by analysts. Lenders and investors of various organizations want to gain as much knowledge as possible about the company's financial standing before issuing loans or investing capital. XBRL provides this vehicle.

What XBRL is

XBRL is an interactive computer reporting language. It is based on XML (eXtensible Markup Language), which is itself a subset of SMGL (Standard General Markup Language). XML uses standard tags to identify the meaning, context and structure of data, much like HTML has standard tags to markup a document so it can be published and viewed in a web browser. While HTML provides a set of pre-defined tags which describe how content appears in a Web-browser (e.g., the font and color of text), XML provides tags that give information on meaning and content in the business and accounting environment.

XBRL has standard sets of definitions, called taxonomies, which enable the automatic extraction and exchange of business data. Reports in XBRL format may be processed by software for viewing and analysis. An example in Figure1 demonstrates the asset portion of the balance sheet for FedEx's latest 10Q available at <http://www.sec.gov/Archives/edgar/data/1048911/000095012309044076/c90231e10vq.htm>.

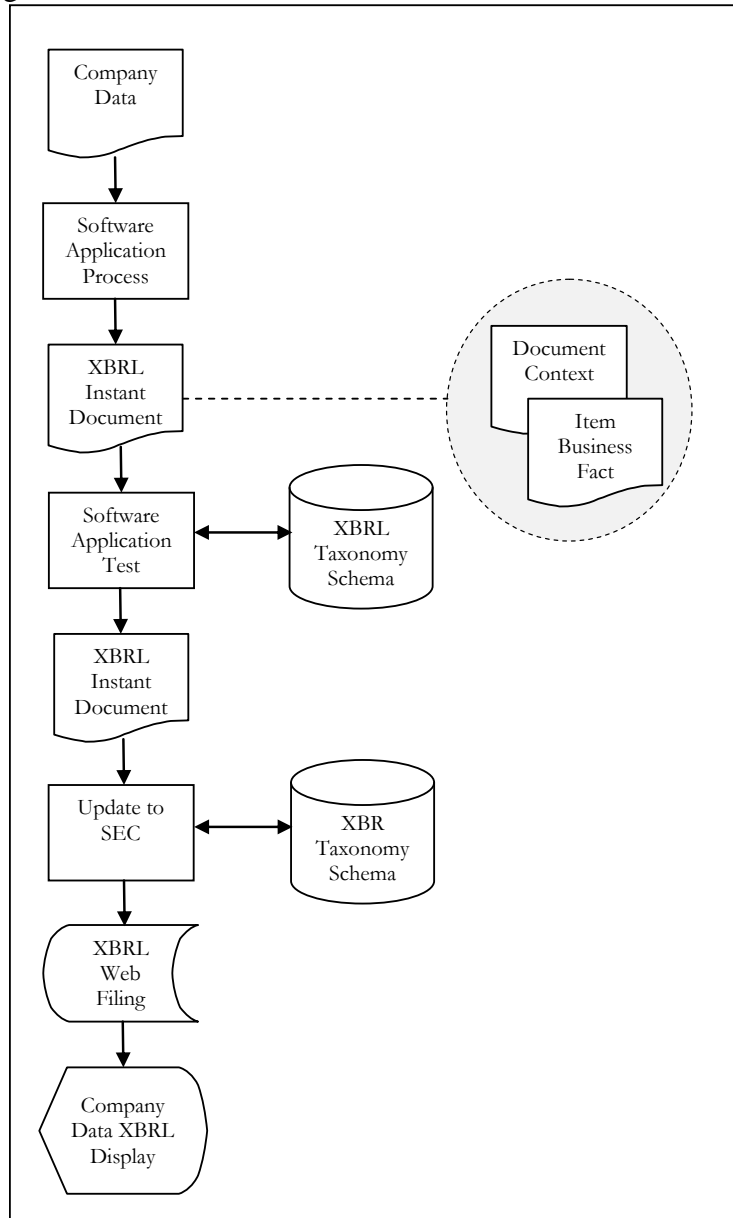
Figure 1

The accompanying notes are an integral part of these condensed consolidated financial statements.

FEDEX CORPORATION CONDENSED CONSOLIDATED BALANCE SHEETS (IN MILLIONS)		
	August 31, 2009 (Unaudited)	May 31, 2009
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 1,789	\$ 2,292
Receivables, less allowances of \$155 and \$196	3,410	3,391
Spare parts, supplies and fuel, less allowances of \$164 and \$175	372	367
Deferred income taxes	510	511
Prepaid expenses and other	307	555
Total current assets	6,388	7,116
PROPERTY AND EQUIPMENT, AT COST		
Less accumulated depreciation and amortization	29,484	29,260
	15,946	15,843
Net property and equipment	13,538	13,417
OTHER LONG-TERM ASSETS		
Goodwill	2,233	2,229
Pension assets	263	311
Other assets	1,435	1,171
Total other long-term assets	3,931	3,711
	\$ 23,857	\$ 24,244

The information presented on FedEx's balance sheet was generated through a series of processes illustrated in Figure 2. Figure 2 provides an overview of the steps involved in creating and publishing an XBRL filing. The first step is the creation of an instant document from the company's financial reports. An instant document is a document containing marked up data known as tagged data for a particular business. Instant documents can be created in various ways. The most elementary way would be to compose the instant document by tagging data via the markup process by writing the appropriate code in a word processing program such as Notepad. However, a more efficient and effective method to create an instant document would be to utilize one of the many XBRL software programs available to tag data and create the code. Phillips, Bahmanziari, and Colvard (2008) analyzed submissions to the SEC from various companies in regard to the XBRL software programs used to create instant documents. Some of the more popular tagging software programs listed in order of popularity were Dragon Tag, EDGAR Online I-Metrics, CoreFiling Ltd, Fujitsu Interstage XWand, and Tagezee.

Figure 2



An instant document contains two unique but interacting sections of information. First is the document context section, which is followed by the item/business fact section. The document context section relates to how information is reported with regard to the appropriate XBRL taxonomy. According to the XBRL.US (2009):

a taxonomy is a description and classification system for concepts; an XBRL taxonomy is a particular way to describe and classify reporting concepts.

XBRL represents each concept as an element with a name. XBRL taxonomies are electronic, machine-readable "dictionaries" consisting of many linked files containing thousands of elements linked to each other. The taxonomy contains human-readable labels such as financial statement line item captions, definitions, and applicable authoritative references for each element.

XBRL taxonomies are classified into several specific and distinct areas. In our example, FedEx Corporation would use the XBRL US GAAP taxonomy. The US GAAP taxonomy provides details of various financial statement elements and categories. Namespace declarations make up the first major component of the document context section. According to White (2008) "namespaces are unique identifiers that are used by XML-enabled software to identify where elements come from" (p.9). An excerpt of the document context section of FedEx Corporation instant document will help to provide some clarity in how items are related as illustrated in figure 3.

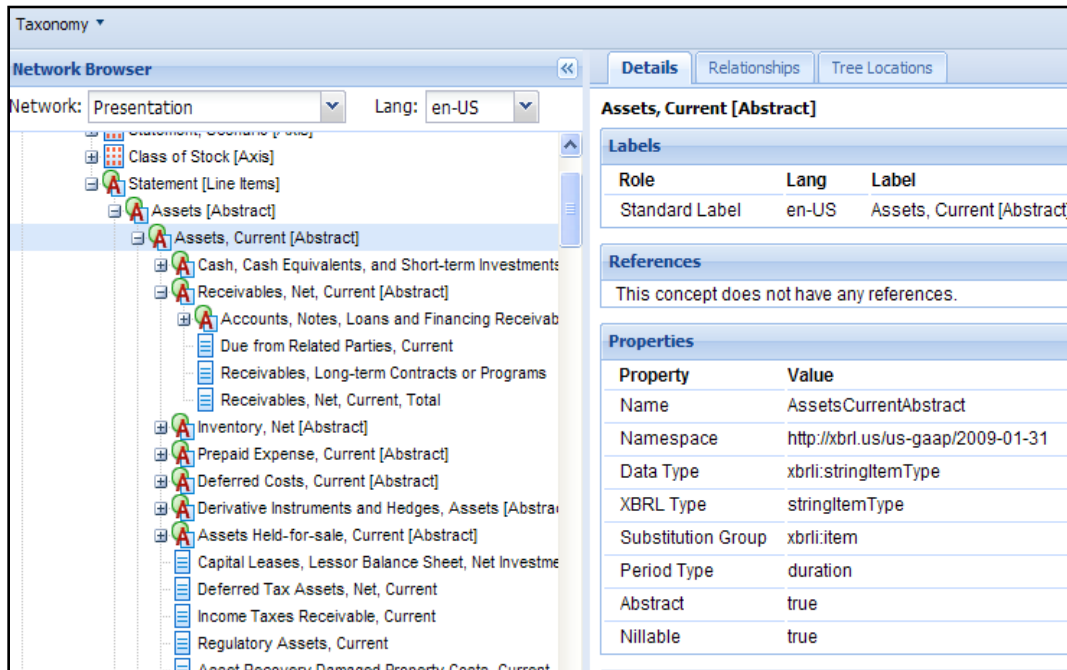
Figure 3

```
<?xml version="1.0" encoding="UTF-8" ?>
- <!-- EDGARizerX: Instance document generated by EDGARizerX, version 3.1.0.0 -->
<xbml
xmlns=http://www.xbrl.org/2003/instance
xmlns:link=http://www.xbrl.org/2003/linkbase
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xbrli="http://www.xbrl.org/2003/instance"
xmlns:asi=http://fedex.com/20090917
xmlns:xbrldi="http://xbrl.org/2006/xbrldi"
  xmlns:iso4217=http://www.xbrl.org/2003/iso4217
xmlns:us-gaap="http://xbrl.us/us-gaap/2009-01-31"
xmlns:fdx=http://fedex.com/20090831
xmlns:dei="http://xbrl.us/dei/2009-01-31">
```

For example, the following line of code: `xmlns:us-gaap=http://xbrl.us/us-gaap/2009-01-31`; starts with `xmlns` which is a key word in XML for declaring a namespace. Following the `xmlns` is the namespace, a link to the `xbrl.us` website which hosts the US-GAAP core taxonomy. Located within the taxonomy are the definitions of the US-GAAP elements. These taxonomies enable the automatic extraction and exchange of business data through a standard set of definitions based on the United States Generally Accepted Accounting Principles. Figure 4 shows the US-GAAP core taxonomy for

current assets available at <http://xbrl.us/taxonomies/Pages/US-GAAP2009.aspx#> located under the “Commercial and Industrial Taxonomy.”

Figure 4



The second main area of an instant document, the item/business fact section determines how data are tagged and disseminated. Continuing with the example, the items shown in Figure 5 are from the Item/business fact section of the FedEx Corporation instant document (see the following output for total current assets as illustrated in figure 6).

<http://www.sec.gov/Archives/edgar/data/1048911/000095012309044076/fdx-20090831.xml>). The total current assets for August, 2009 and May 31, 2009 were \$6,388 million and \$7,116 million, respectively.

Figure 5

```

<!-- Total current assets -->
<us-gaap:AssetsCurrent unitRef="u000" decimals="-6"
contextRef="c00001">6388000000</us-gaap:AssetsCurrent>
<!-- Total current assets -->
<us-gaap:AssetsCurrent unitRef="u000" decimals="-6"

```

Figure 6

The screenshot shows a web browser window with the URL <http://www.sec.gov/Archives/edgar/data/1048911/000095012309044076/c90231e10vq.htm>. The page title is "Form 10-Q" and the content is a "Table of Contents" for FedEx Corporation's Condensed Consolidated Balance Sheets (in millions). The table compares data for August 31, 2009 (Unaudited) and May 31, 2009. A red oval highlights the "Total current assets" row, which shows values of 6,388 for August 2009 and 7,116 for May 2009.

	August 31, 2009 (Unaudited)	May 31, 2009
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 1,789	\$ 2,292
Receivables, less allowances of \$155 and \$196	3,410	3,391
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The accompanying notes are an integral part of these condensed consolidated financial statements.

After the creation of the instant document, the next step in the process is to use a software application to test how the instant document will appear as an XBRL web filing. Once the instant document contains the appropriate tagged data, the document should be validated for completeness and accuracy. Popular software used in this step is Dragon View. Dragon View takes the instant document and incorporates the XBRL Taxonomy Schema database to render an XBRL compatible document. The free interactive financial reporting program on the SEC website has the capacity to test how the interactive data will appear on the SEC website. The financial reporting program and other pertinent information is available at <http://www.sec.gov/spotlight/xbrl/viewers.shtml>.

After testing and validating the instant document, the final step in the process is to upload the instant document to the SEC database. The SEC website will take the instance document and render an XBRL compatible document capable of being viewed through a web browser. In the example, FedEx Corporation would then upload their document onto the SEC website. After completion of the above steps, the document is hosted on the SEC website and is available for viewing via web browsers from interested users which compose the final two processes in Figure 2.

Conclusion

In today's fast-paced, technology driven world, the desire for expediency has prompted business professionals to place a premium on information that can be found quickly and easily. Accordingly, the way information is disseminated will change, thus presenting interested parties with a new method of searching for and utilizing financial information. A technique to meet the need of streamlining information in the business and accounting fields is to incorporate XBRL standards into financial reporting requirements. However, anytime there is a change in reporting financial information, a systemic change and understanding of the process must take place in organizations. The researchers sought to fill a gap between the accounting industry and the classroom and create a general understanding of the XBRL development through a process flowchart.

Within a few years, XBRL will be commonplace in most if not all of the largest public accounting firms and private industries. Currently, many organizations rely on external providers to format and submit their information in XBRL. Potential employers will be looking for new accounting graduates that have this skill set to replace external providers that format and submit their information in XBRL. Integration of XBRL into the accounting curriculum will be imperative to a quality accounting education. Graduating accounting majors having the skills necessary to structure accounting information in XBRL will be at an advantage in seeking employment.

References

- Defelice, A. January, 2010. Most Companies Actively Preparing for XBRL, Survey Shows. *Journal of Accountancy*. Retrieved from <http://www.journalofaccountancy.com/Web/20102490>.
- Phillips, M. E., Bahmanziari, T. E., & Colvard R. G., (February, 2008). Six Steps to XBRL. Learn how to translate your income statement into tagged format. *Journal of Accountancy*.
- WebCPA Staff. (August 5, 2009). U.S. GAAP XBRL Tags Aligned to FASB Codification. Washington, D.C.
- White, C. (2008). *The Guide & Workbook for Understanding XBRL 2nd ed.* Retrieved from <http://www.skipwhite.com/>
- XBRL.US. (2009). XBRL and public company business information. Retrieved October 19, 2009 from <http://www.xbrl.us>.