XML: Where Do We Stand?
The EXTOL, Inc. Position

XML is currently a hot topic of conversation. This paper defines some of the reasons for this and states EXTOL's position regarding XML and its integration within the EXTOL Integrator™.

In the industry space that EXTOL and the EXTOL Integrator product line participates, XML is being talked about frequently, and has substantial importance, because XML documents are considered to be user friendly and easier to interpret than traditional EDI. The use of XML is also viewed as a lower cost entry into the world of electronic document transfer. The perceived lower cost of entry results in the ability for trading partners previously unable to communicate electronically to do so with XML.

The cost factor stems from both reduced learning curves and XML's ability to easily take advantage of the Internet as a transport vehicle. This notion of the entry cost being lower because XML can take advantage of the Internet is a common misconception. In actuality, XML is neither better nor worse than EDI or any other character-based formatting standard as far as Internet transport is concerned. People state that EDI = VAN and XML = Internet. This is obviously not true - you can easily send EDI over the Internet, or you can send XML via a VAN. This is an apple-to-oranges comparison. EDI and XML are data formatting methods, while VANs and the Internet are data transport methods.

While everyone wants to know that their vendor is supporting XML documents, few sites or applications are actually implementing XML solutions at this time. We expect to see the actual implementation of XML-based solutions grow significantly over the next several years.

The primary reason for the lag of implementation behind the tremendous marketing activity is the lack of standards. The implication of this is that whenever you send an XML document, you must also send a style sheet that describes how to display and format the document. In addition, only certain browsers currently support the display of XML. Any release of the Microsoft browser release 5.0 or higher can support XML documents.

At EXTOL, we see two important advantages to XML when used in electronic commerce:

1. When publishing a document to be read by a person (as opposed to an application to-application exchange of data), the only software required to read the document is an XML-enabled web browser.
2. Because XML is extensible, users can express their exact meaning in XML-formatted data, rather than being forced to fit their data into a rigid standard such as EDI.

There are also two "advantages" claimed for XML, which we believe to be false positives that require further evaluation by the market:

1. XML can be sent over the Internet easily, EDI cannot. EDI requires a VAN. (This was explained above.)
2. XML makes electronic commerce available to Small to Medium Enterprises (SME) that cannot afford traditional EDI. This is only true if you describe electronic commerce as an application to-human exchange of business data. For application to-application data exchange, while XML may have some advantages over EDI (e.g. extensibility and ease of use), it does nothing to make this type of exchange any more affordable for the SME. The difficulty remains at the application interface, regardless of whether the data exchange is encoded in XML, EDI, or some other variation that may arise in the future. To change existing application interfaces to accommodate XML will take a tremendous effort, resulting in costs that exceed those for implementing EDI.

As a company, EXTOL feels that XML is an important part of the industry's future, despite the current lack of standards. And, it is important that the EXTOL Integrator support XML as a component of our data translation and application integration product vision. We will be releasing support for XML beginning with the EXTOL Integrator Release 5.0. As is consistent with our corporate and product philosophy, this support is applicable for all of our products: EXTOL Integrator 400, EXTOL Integrator NT, and EXTOL Integrator UNIX.

When we speak of "standards", there are different types of standards to consider. XML is a simple standard that is basically syntax for describing data. EDI is a fairly "complete" set of standards - including data syntax, field (element) definition, record (segment) definition, document definition, and envelope definition. There are efforts in the industry to address the differences between these types of standards. ebXML, for example, is an effort to create the functionality of EDI using the XML syntax. (EXTOL is an active participant on several ebXML committees.) There are many groups in addition to ebXML creating standards, as well. According to Gartner Group, there will be an "onslaught" of XML standards, even within the same industries. Gartner's advice is not to wait for consensus standards to emerge - that will take too long. They suggest that the "rogue" schemas, which are being developed, be used, but with the realization that in the future it will be necessary to change to the de jour or de facto standards for compliance.

Beginning with Release 5.0, the EXTOL Integrator products will support **EDI-to-XML** transformation. Our transformation will take the standard EDI element IDs and convert them to XML tags. Because XML is not a formatting language, we will create and use XML style sheets that will accompany our documents. This will allow any user to look at the data in a very readable format.

EDI-to-XML transformation will have several implications for our users. First, it will allow the EXTOL Integrator to send any transaction as an XML document. The document can be sent as data, attached to e-mail, or can be part of a fax. If the EXTOL Integrator receives a document in EDI format, it will also be able to transform that into XML to be used with e-fax or e-send to a user. This can supplement our current User View functions.

As XML standards develop and the industry consolidates, EXTOL will support the accepted specifications. Until then, EXTOL needs to be prudent in its use of XML, as do

the other vendors in our space, because it is not possible to build a house if there is no design or if plans do not exist.

Some people have asked about EXTOL's support of an **XML-to-EDI** transformation. The evolution of the EXTOL Integrator line of products is very customer and market-driven. As the market for XML matures, we will continue to adapt our product to those requirements and support XML-to-EDI transformations. EXTOL believes that EDI is not dead but is evolving as a necessary complement to XML. As such the EXTOL Integrator will also continue to evolve to support the market needs for new transformation technology as it relates to EDI-XML, XML-EDI, and XML-XML. Some of the new XML transformation support that EXTOL develops will be able to stand-alone.

EXTOL views EDI-to-XML and XML-to-EDI translation as a means of providing a temporary XML "fix" to those who need to say they support XML. The EXTOL Integrator will easily perform these transformations. In our opinion, though, the real transformation needs will be **XML-to-XML** and XML to- and from- various types of application database structures, both flat and hierarchical. The XML-to-XML transforms will be needed to connect XML "enabled" applications. The XML-to-Any and the Any-to-XML transforms will be needed to connect XML applications to non-XML-enabled applications.

As always, our intent is to support our customers and their needs by supplying products that are very flexible and that reduce the total cost of ownership. If you
- Have any questions about our XML support
- Would like to make a suggestion about specific features
- Want to become part of our mailing list so that you can remain current on our offerings
- Would like a copy of our new XML white paper,

please visit our website at http://www.extol.com or send an e-mail to XML@extol.com.