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THIS MONTH

D&H takes a look at fire- and life-safety and security issues in hospitality and entertainment venues across the country.



INDUSTRY In the Know

DHI answers your FDI program questions, and John Clancy, AOC discusses the importance of members investing in their future through education.

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XML In Plain English!

Introduction

IN RECENT MONTHS, WE AT AVAware have received many questions from manufacturers and distributors about XML and how it may be used for software integration and data sharing. Traditionally, discussions about XML have taken place between software developers only; however, end users are continually growing more computer savvy and are increasingly involved in the planning and deployment of software solutions.

BY ANDREW MELLING

Software vendors tend to overstate and overcomplicate these matters in dramatic fashion. As such, the purpose of this article is to dispense with the nonsense surrounding XML and provide a simple, clear explanation of what it is and how it is used in terms of software integration.

What Is a File Format?

A computer file contains information (text, images, video, etc.) to be used by a software application. The way this information is organized and stored within a computer file is its file format. In other words, the file format is the specification

used by a software application to recognize and understand the data contained in a particular computer file.

File formats can be open or proprietary. Open (or “free”) file format specifications are publicly available and can be used and implemented by anyone. They allow multiple software applications to share the same files and are usually maintained by a standards organization which governs the format specification and revisions to it. For instance, digital camera and scanner software can use the same open file format for saving images, allowing files created by either device to be used by a single software application. In contrast, proprietary file formats are created and maintained by private companies and software developers. Proprietary format specifications are not publicly available.

What Is XML?

XML (Extensible Markup Language) is a strict, text-only format that has become extremely popular in recent years because of its ability to store, describe and transport data. It’s important to note that the XML “language” itself doesn’t “do” anything; it is simply a general set of rules for describing data. An XML file contains only plain text information; the format of a particular XML file is unique

to the software application(s) that create or will use the file. Therefore, a particular XML file is of little use without an XML document definition, also known as an XML Schema.

What Is an XML Schema?

An XML schema is a map for the data contained in an XML file. XML files must conform to an XML schema, and an XML schema is required to navigate through the data of an XML file.

How Do Different Software Applications Communicate via XML?

Because almost every software application in the world can understand plain text, XML is ideal for passing data from one application


to another. XML has enabled even very complex software applications to integrate with other applications. These transactions are not without custom programming, however, since all applications using XML data must understand the data's schema. The schema acts as a contract between the applications, and software developers create the processes for making use of the data.

A Common XML Misconception

Though plain text is virtually a universal language among software applications across all computer operating systems, it is a common misconception that an XML file created by a particular application is automatically useful for another application that understands XML.

At first glance, the contents of XML files may appear similar, but in fact, without the XML schema and a specific process developed for what to do with the data, the XML file itself is of no use.

Conclusion

XML is an excellent, flexible means of describing and transporting data, but it is by no means a "turn-key" solution for software integration. XML transactions are very specific and need to be carefully coordinated by both software applications. 

About the Author: *Andrew Melling is with AVAware, a Toronto-based software company that has been developing Windows-based software solutions designed specifically for the architectural openings industry since 1996.*

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