THE GILBANE REPORT™

ASPS, CONTENT, & CODE

We haven't researched our readership to see how many of you are renting remotely hosted application software, but our guess is that few of you are. In fact, you are more likely to have ASP (Application Service Provider) stock in your portfolio than ASP software running on your desktops. Those of your who are using ASP services are most likely not using them for content management applications. Should you be?

The ASP model has a lot of appeal for both users and vendors of application software. Paradoxically, there are financial advantages for both users and vendors, and both benefit too, from a more manageable support model. The promise of the ASP approach has resulted in a gold-rush-like stampede to market. There are already hundreds of ASPs (This is not an exaggeration! See www.allaboutasp.org for a partial list).

The ASP approach deserves serious consideration. However, decisions about what applications are appropriate, and what type of ASP can best meet your needs are not as straightforward as you might think. And, as our title suggests, there are subtle differences affecting the suitability of applications depending on the content involved.

This month we provide a basic understanding of the ASP market. We look at the types of providers, what kinds of applications make sense, what to watch out for, and what this means to the software vendors you are used to working with.

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ASPs, Content, & Code

The ASP (application service provider) market is hot, or at least that's what it looks like to anyone following IT market developments. Not only is there a lot of press about ASPs, there are a growing number of announcements from software vendors about their ASP strategy. IDC predicts ASP spending will reach $4.5 billion by 2003. Other claims found in vendor press releases talk about numbers as high as $22 billion by 2004. There are a lot of big numbers thrown around by market researchers and vendors and while we can't vouch for any ASP market size numbers, we have no doubt that this is a trend with legs.

What Exactly Is an ASP?

According to the ASP Industry Consortium (a useful resource located at www.allaboutasp.org) ASPs "…deliver and manage applications and computer services from remote data centers to multiple users via the Internet or a private network." Nothing obviously complicated here, but the ASP market is not as clear-cut as you might think. There are many different kinds of players, including:

◢ *Pure-play ASPs.* "Pure" is relative and, we predict, temporary. ASPs that don't provide value beyond rental services will eventually lose out to integrators and software vendors.

◢ *ISPs.* As more ISPs add application services the difference between ASPs and ISPs will become one of emphasis.

◢ *Telcos.* As telecommunication companies of all types become "super ISPs" as data, voice *etc.* convergence actually starts to happen you can be sure they won't be content as invisible infrastructure providers. (Sprint announced their entry into the ASP market as we were writing this).

◢ *FSPs.* Full Service Providers are not really a category of suppliers. The term is more marketspeak than anything else. A real FSP would be an outsourcer or a big integrator.

◢ *Outsourcers.* These companies basically do everything and are not considered ASPs. However if I were an outsourcing company I would surely be planning ASP services to protect my flanks.

◢ *System integrators.* These are the real "FSPs" since they provide "insourcing" as well as outsourcing services. It is likely that this group will continue to focus on the tricky high-end applications that require lots of custom integration. The big firms with accounting ties are not oblivious to the appeal of a renewable revenue stream that can balance the, sometimes unpredictable, revenue associated with large custom project costs.

◢ *Software vendors.* Almost all software vendors will have an ASP option before long (we'll talk about why in a minute). They may provide ASP services themselves or with partners. In the meantime, just the idea of ASPs is enough to force many of them to offer more flexible financing options such as different forms of leasing.

Many of these different types of players will be partnering with each other since they each bring different types of qualifications. But keep in mind that anyone can be an ASP.

ASP pure-plays are quick (and correct) to point out that 24X7 support becomes even more essential when your employee's tools are only available over the net. The implication is that they have invested in the infrastructure to ensure this level of support where others (read vendors) may not. It is a bit scary to realize productivity is dependent on the robustness of somebody else's web server – one untimely crash could have a disastrous affect on your career in IT. Even so, more than one of the start-ups we are working with is bringing a product to market as an ASP first, and then deciding whether to package a stand-alone product. It is cheaper, they can get to market faster, and they can respond to early customer feedback immediately.

The ASP label is still useful even though it is sometimes applied to providers in confusing ways, but it is more useful to think of it as an *approach* or strategy that some providers limit themselves to rather than as a category of supplier.

APPROPRIATE APPLICATIONS

IDC forecasts that almost half of the spending on ASP services will be for enterprise applications. ERP applications in particular, are driving much of the interest in the ASP model because of their high initial cost and considerable complexity. Both cause significant delays in deployment, and the latter requires a large support resource. The other half consists of everything else, but there seems to be special interest in collaboration and e-commerce applications. The results of an ongoing web survey (as of 3/7/00) at the ASP Industry Consortium site suggests what applications will be in demand this year from ASPs:

In the year 2000, which class of applications will
be most frequently delivered by an ASP?

24% - communications/collaboration
14% - finance/accounting
16% - Customer Relationship Management
6% - education/training
34%- e-commerce
7% - human resources

In terms of appropriateness, complex and costly applications like ERP seem to be appealing candidates for ASP deployment. On the other hand, heavily customized client/server applications can be a nightmare for an ASP and are not easily supportable by vendors. This is why there are "lite" versions of ERP software available. The economics make sense for the user but the support requirements aren't appealing to all suppliers.

It is worth remembering that there is nothing inherent in a client/server application that makes it undeployable via an ASP – it depends on the specific application's design, scalability, performance, and supportability. Client software doesn't have to be thin to be downloaded and rented. You need to ask some careful questions about this before you sign-up to for an ASP version of a rehabilitated client/server application. Clearly web applications have a big advantage here.

It's Not Just for ERP

It is easy to be misled by the extra enthusiasm of ERP vendors and the dispropor-tionate media coverage devoted to ERP. In fact, ERP may not be a good choice for testing the ASP approach. ERP is complex no matter what you do, and blithely moving this complexity to an ASP could be a bit risky. ERP vendors need and ASP solution to help stem slow growth, but that should not be *your* first concern.

Desktop applications are just as appropriate for an ASP model, and you can ex-pect to see a lot more of these in the next 12-18 months. (Note that this is how we will finally end up evolving from overweight desktop applications into light-weight applets. All those years of proselytizing about the benefits of distributed object computing and it's the rental idea that will make it happen!)

THE APPEAL OF AN ASP APPROACH

The three main reasons companies are interested in an ASP model are:

Cost Savings

Savings are mostly in terms of up-front and capital equipment costs. While ASP vendors claim overall cost savings of between 22-56%, many companies point out that *monthly* software costs don't go down. (User/month fees range from $75-$1000+). Still, an ASP service should dramatically reduce, and make more predictable, capital and operating expenditures.

Rapid Deployment

Deployment time is critical, especially if the application is revenue-related. Note that e-commerce applications are the most in demand according to the ASP Consortium web survey. Deployment will not always be as fast as you expect, but if the application is suitable for ASP delivery to begin with, it should deploy more readily. The flexibility to change applications with less risk and disruption is a related benefit.

IT Resource Shortage

This is an issue not only in terms of the difficulty in hiring, but also in terms of personnel cost savings. Offloading support burdens can free resources for other projects as well as reduce aspirin expenditures.

CONCERNS

Customization

Many companies have extensive customization requirements, and ASPs are not likely to be the best choice for this kind of support. Moreover, many ASPs don't currently even allow much customizability. (This is where a consultant/integrator ASP has a role).

Content, Code, & Control

Control over content is for many much more important than control over code. Just as some companies have been unwilling to outsource functions that involved critical data or content, some will also choose not to use an ASP if it requires data to be stored at remote data centers.

Over time we will all become more comfortable leaving a larger portion of content on remote sites managed by others. Software code on the other hand is something most companies are happy to get rid of since it is still too difficult to write, maintain, and support. More to the point, *most* of your intellectual capital is in content, not code. Most of your code is easily replaceable (from a vendor or ASP), your content may not be, especially as you rely less on paper back-ups.

Anyone responsible for content management should ensure decisions about outsourcing and ASP solutions are being made after reviewing the different degrees of risk associated with loss of content *versus* code.

Because software vendor's intellectual capital is mainly in their code it makes sense for them to maintain more control over it. This is the reason you can count on them not completely ceding the market to third party ASPs.

Expertise Dependence

It's one thing to depend on an IT organization in your own company, or to depend on a direct relationship with the software vendor – it is quite another to add a level of indirection by inserting a third party in the middle of these relationships. You could end up depending on someone who is depending on someone else for help. Sometimes this is unavoidable, but it is never ideal.

Speaking of IT (yes, that is more than half of you), there are bound to be organizational and political repercussions to the introduction of a new ASP variable. Just don't forget.

VENDOR PERSPECTIVE

There are potentially some very appealing benefits for software application vendors. The most often mentioned is the market expansion into small and medium size businesses. This is what got the ERP vendor's attention. Without enormous up-front expenditures the number of potential customers increases dramatically. But that is not the only way the demographics expand. Because ASPs are remote hosts and a new channel, there are new geographic segments that can be penetrated as well as new possible entries into customer organizations. This can be especially important to vendors too small to expand their reach on their own.

The pure financial benefits are significant. Selling through or being an ASP means adding (or increasing) a renewable revenue stream. This not only has substantial investor appeal, but also smoothes out cash flow and allows for better cash management and quarterly predictability.

But don't assume all vendor ASP offerings to be alike. For example, PeopleSoft just announced an ASP program that still forces you to *buy*, rather than rent, the software, and you have to pay all the up-front implementation costs! They do provide a leasing option.

The downside for vendors

There is potentially a very big one when the ASP is a third party – loss of account control. Your first and main point of contact will not be the vendor it will be the ASP. Related to this is inevitable brand dilution – the ASP brand becomes more important than the vendors'. In some cases ASPs and vendors will be competing – and I don't mean simple channel conflict. As ASPs take over a larger share of

the market and competition among them increases they will be adding value to differentiate themselves, and adding the services and expertise that one expects from vendors is one way to do that. Some ASPs will certainly start wondering why the heck they are not keeping more of the revenue coming from the customers since, after all, *they* are providing the lion's share of the value, and since these are *their* customers.

ASP influence on vendor pricing will increase as they become the vendors' bigger customers. ASPs will pressure for lower prices, which will increase their profit margins at the expense of vendor margins.

As appealing as a renewable revenue stream is over time, unless all ASP revenue is in *addition* to current sales there could be difficult transition cash-flow-wise. Most application vendors are used to receiving and booking large payments when new sales are made and systems shipped. With an ASP model there is no immediate big revenue infusion. A large number of forecasted sales that end up as rentals in a quarter or fiscal year could have a challenging impact. (This may explain PeopleSoft's unique ASP model).

RECOMMENDATIONS

We think the ASP model is here to stay and that we should all be happy about it. But as usual things are not as simple as they first appear. As you weigh the options for introducing ASPs into your organization you should:

◢ Remember that it is an *approach* that can be implemented in many different ways, by different types of suppliers, with different skill sets, offering different financial options.

◢ Choose the type of ASP supplier who meets all your needs for customization, cost, support, expertise, *etc.* Keep the content/code distinction in mind – its import is under-appreciated.

◢ Choose the application(s) for an ASP solution carefully. The most complex and costly applications should *not* automatically be considered the best candidates.

◢ Be wary of ASP versions of mature client/server applications. They may work just fine but don't assume they will – or that they won't.

◢ Remember this is a new model and everyone is experimenting. You should be able to negotiate solutions that meet your unique business needs from one of the hundreds of suppliers.

--Frank Gilbane

INDUSTRY NEWS

Current news and commentary is available at
www.gilbane.com/

IBM AUTOMATICALLY TRANSLATES DATA FOR USE ON MOBILE PHONES, PDAS & OTHER DEVICES
2/29/00

IBM announced new software that dynamically translates, or "transcodes," Web information – including text and images – to a format readable on a variety of Internet appliances. IBM WebSphere Transcoding Publisher extends the reach of Web data and applications to a new generation of information appliances, including smart phones, car browsers and PDAs. Because Transcoding Publisher customizes the content to match the capabilities of the receiving device, applications do not have to be rewritten. The software is available for AIX, Linux, Solaris and Microsoft Windows NT and Windows 2000 operating systems. Built on an extensible, Java-based architecture, WebSphere Transcoding Publisher converts data and applications written in the standard markup languages of the Web – HTML and XML – to other formats such as Wireless Markup Language (WML). It can also convert graphics to a format that can be viewed on a handheld device, or convert the graphic to a hyperlink. Transcoding Publisher extends the capabilities of other IBM software offerings, including WebSphere Application Server, MQSeries Everywhere, and Host Publisher, to handheld devices. The combination of these offerings gives customers the ability to extend data and applications – whether host or Web-based – to a format appropriate for the receiving device. WebSphere Transcoding Publisher will be available worldwide in ten languages on March 31, 2000.
www.software.ibm.com

We assume this is an XSLT application, but haven't checked.

UNICODE 3.0 RELEASED - EXTENDS TO ALL WORLD LANGUAGES
2/29/00

The Unicode Consortium announced the release of the Unicode Standard Version 3.0, the software specification that assures a single, universal way to represent text worldwide. Version 3.0 now supports 49,194 characters, including 31% more ideographs for Japanese, Chinese and Korean mar-

kets. Implementation support is greatly expanded, with double the character property data, and four times as many technical specifications for supporting implementations. The Unicode Standard is a major component in the globalization of e-business, as the marketplace continues to demand technologies that enhance seamless data interchange throughout companies' extended – and often international – network of suppliers, customers and partners. This new version reaffirms the broad, cross-industry commitment to the standard among leading IT vendors, enabling reliable transmission and storage of text data anywhere in the world. Unicode is the default text representation in XML, an important open standard being rapidly adopted throughout e-business technology. The Unicode Standard assigns every character a unique number, ensuring the same representation for text regardless of country, language, or operating system. As a result, computer programs written to its specifications can be used around the world without modification. Unicode-enabled programs – client, server, operating system, or middleware – can share textual data worldwide. Text can be transmitted freely, without suffering the data loss that occurs with older systems. The Unicode Standard has been adopted and promoted by global industry. Corporate members of the Unicode Consortium are: Apple Computer, Basis Technology, Booz Allen & Hamilton, Compaq, Hewlett-Packard, Hyperion Solutions, IBM, Justsystem, Microsoft, NCR, Oracle, PeopleSoft, Progress Software, The Research Libraries Group, Reuters, SAP, Sun Microsystems, Sybase, Unisys and Xerox (many other companies are associate members). Unicode is enabled in all modern Web browsers, almost all operating systems, and Internet standards such as HTML, Java, ECMAScript, XML, and LDAP. The Unicode Standard, published by Addison-Wesley Longman, is widely available in bookstores or may be obtained directly from the Unicode Consortium.
www.unicode.org

If you want to read one of the best and most rewarding descriptions of Unicode see François Chahuneau's excellent and comprehensive article in the Gilbane Report Vol. 5 Num. 4. (Disclosure: we just promoted our own publication).

SUN ANNOUNCES AVAILABILITY OF JAVA API FOR XML
2/29/00

Sun Microsystems, Inc. announced the immediate availability of the Java API for XML Parsing Optional Package (JAXP). JAXP is now available free at http://java.sun.com/xml/download.html. JAXP's availability is the first phase of Sun's vision to make

it easy for developers to build cross-platform business-to-business applications based on XML and Java technologies. The JAXP Optional Package provides core XML functionality for reading, manipulating, and generating XML documents through pure Java APIs. It provides a standard way to integrate any XML-compliant parser with a Java technology-based application. Depending on the needs of the application, developers have the flexibility to swap between XML parsers – such as high performance or memory conservative parsers without changing application code. Java Project X is used as the default XML parser in JAXP; however, the software's pluggable architecture allows any XML-conformant parser to be used, including the xml.apache.org XML parser, code named Xerces. Through the JCP, JAXP is being considered for inclusion in the next releases of the Java 2 Platform, Enterprise Edition (J2EE) and Java 2 Platform, Standard Edition (J2SE). Also in development is Project Adelard, a facility for generating Java classes from XML DTDs. Other XML initiatives include improved XML support in JavaServer Pages technology using XSLT and extensive XML support in J2EE, such as XML data transcoding to multiple devices, XML data exchange framework and XML support in Enterprise JavaBeans components. www.sun.com

*Java and XML have always seemed a great match, and not just because Jon Bosak said so (although Jon is almost **always** right).*

MOAI INCORPORATES XML INTO LIVEEXCHANGE
2/28/00

Moai announced support for XML in its LiveExchange Solutions. In announcing its support, Moai has introduced Dynamic Commerce Markup Language (DCML), a standard XML implementation for online negotiated exchanges that includes auctions, trading exchanges and negotiated procurement markets. This standard allows LiveExchange customers to more easily and quickly develop solutions that exchange data with existing legacy systems and other trading networks. DCML augments Moai's Java-based OpenAPI as an additional mechanism to access LiveExchange based marketplaces. To add XML support to its LiveExchange solutions, Moai has defined DTDs developed specifically for online auctions, trading exchanges, and procurement markets. For example, DCML defines a document for an auction, which includes a product or service description, the type of auction (e.g. reverse, dutch, sealed bid), any reserve price, etc. Moai has channeled its extensive market expertise into defining its DCML standard for dynamic commerce. By defining and sharing the DCML

standard, Moai will enable the interconnection of marketplaces that support XML for data interchange, whether these markets are implemented with LiveExchange or an alternate platform. For example, a customer could purchase items in one market and the information on the products would be automatically sent via DCML to a shipping exchange where carriers could bid on delivering those goods. These types of interconnected negotiated e-Commerce marketplaces streamline a customer's workflow processes, providing a substantial savings in time and money. www.moai.com

FATBRAIN.COM INTRODUCES INFORMATION EXCHANGE SUITE
2/28/00

Fatbrain.com introduced a new way for businesses to manage, market and distribute corporate information. Fatbrain.com's Information Exchange product suite combines e-commerce, secure digital publishing technology known as eMatter, comprehensive professional bookstore, established print-on-demand infrastructure and distribution and fulfillment services to deliver a complete Web-based solution for outsourcing mission-critical internal and external corporate information. Despite long-rumored predictions of the paperless office, today virtually every corporation manages large amounts of external content, from books to technical and product documentation to a variety of internal corporate documents such as annual reports and employee handbooks, the vast majority of it still distributed on paper. For many corporations, the volume and complexity of managing all of this information is extremely costly and a distraction from their core business expertise. Using the Information Exchange product suite, corporations can now outsource the management, marketing and distribution of this information. Through the Information Exchange solution, all internal and external publications are cataloged, tracked, published and delivered via an easy-to-use, custom intranet-based or Internet Web site. Publications can be quickly and easily accessed through searching and browsing tools and economical delivery options. The Information Exchange works like an online bookstore for corporate publications, newsletters, research reports, marketing and sales brochures, product manuals, white papers, and other internal publications. In addition, the Information Exchange can provide convenient access to a world-class selection of professional books and resources including Web-based training and certification programs – the same selection available from Fatbrain.com's popular online store. www.fatbrain.com

We are curious to see how this works out, and if it does what the competition will do. (Disclosure - even though you probably don't care: We are also interested because we publish our content as eMatter on Fatbrain).

VSI ANNOUNCES BREEZE & ALLIANCE WITH SOFTWARE AG
2/28/00

VSI (V-Systems, Inc.) announced the immediate availability of Breeze XML Studio (Breeze), The E-Business Accelerator – a development environment that binds XML to JavaBeans. Breeze provides Java and XML developers with a natural and productive method for building XML-based B2B and Enterprise Application Integration solutions. Breeze enables Java developers to create, access, and transport XML-based objects through JavaBeans bound directly to XML data elements. XML element and attribute names immediately translate into Java class fields. XML structures then become Java classes. From there, related XML structures emerge as Java packages. A strategic alliance between VSI and Software AG was also announced. Breeze will be integrated and distributed with Software AG's X-Studio, which is the developer part of Software AG's XENON architecture for XML based applications. Breeze also provides a Java language interface for all XML messages processed by XENON's native XML database, Tamino. Breeze XML Studio includes tools to serialize and de-serialize Breeze JavaBeans for both network streams and data-sources. The Breeze Toolkit can exchange these objects via SMTP and POP3 and includes tools for transporting XML objects over HTTP or TCP connections. The Breeze XML Studio development environment is licensed on a per -seat basis. The generated code, which includes the Breeze Toolkit, is licensed based on the intended distribution–whether for a single internal network, as part of an enterprise deployment, or for inclusion in a third-party product. Breeze XML Studio is presently offered direct from VSI in several different licensing configurations with associated fees: Demonstration (free), Developer ($995 per seat), Single-Enterprise Distribution ($5,000), Unlimited Single-Product Distribution ($10,000), and OEM product licenses. With the exception of the Breeze XML Studio Demonstration License, all licenses include one year of maintenance and updates. Breeze XML Studio is available for Microsoft Windows NT, Microsoft Windows 2000, Sun Solaris and Red Hat Linux. www.vsi.com

XML PORTAL GAINS LEGACY DATA ACCESS VIA WRQ-DATACHANNEL PARTNERSHIP
2/28/00

WRQ, Inc. and DataChannel, Inc. announced a partnership designed to provide enterprises investing in e-business the ability to extend the usability of legacy data in IBM mainframe, AS/400, UNIX and VAX host applications using XML as their e-business data exchange platform. Through this partnership, enterprises can use WRQ Apptrieve application mining solution to selectively expose valuable data in legacy applications for integration into DataChannel's XML-based enterprise information portal. WRQ Apptrieve makes it easy to mine legacy applications, preserving their key business logic, and exposing the data via standard object formats such as Javabeans or COM for integration with Web applications – without re-engineering the underlying business processes or host system. WRQ will also provide users the option to expose legacy data via the XML standard for integration with XML frameworks such as DataChannel's EIP, which enables users to offer a personalized and user-friendly interface to that valuable information. www.datachannel.com, www.wrq.com

ACORD APPROVES XML INSURANCE TRANSACTIONS
2/24/00

Through the ACORD standards-setting process, both Property/Casualty and Life subcommittees have voted to adopt the first insurance industry standard XML transactions. Called ACORD XML for P&C Insurance and ACORD XML for Life Insurance, the transaction standards adopted have been developed through a cooperative process involving hundreds of organizations from the insurance and related financial services industries. ACORD XML is based on existing ACORD standards, thereby easing migration to XML, a cross-industry e-commerce standard for business-to-business and business-to-consumer transactions. The ACORD XML initiatives focus on defining a set of standards detailing interfaces, data, and error processing relevant to insurance business functions. These standards enable real-time exchange of information and integration of systems used in day-to-day operations for processing insurance. They enable insurance carriers to face the challenge of providing a single set of views or interfaces into their supporting back-end systems. The P&C adoption includes several XML business messages that enable the real-time exchange of quote and applica-

tion transactions for personal and commercial lines of insurance over the Internet. Included in the adoption is the Interactive Financial Exchange (IFX) specification, which provides a standard framework architecture to ensure interoperability among multiple trading partners using IFX. The ACORD P&C Transaction Review Board has provided business and technical expertise from organizations such as PMSC, The Hartford, AMS, Travelers, Microsoft, SAFECO, IVANS, National Grange Mutual, Applied Systems, Ontos, and Symmetry Technology Labs. Currently several other working groups are developing additional transactions for use in the insurance industry and in dealing with trading partners. www.acord.org

This industry is belying its "stodgy" reputation. They appear to be doing great things with XML. Anyone know how much of this is being used? If so, let us know – we might write something about this.

OPEN TEXT ANNOUNCES B2BSCENE.COM
2/24/00

Open Text Corporation announced b2bScene.com, a cross-industry, collaborative commerce marketplace. b2bScene.com will operate as an independent division of Open Text, leveraging Livelink's collaborative capabilities and its new personalized interface, myLivelink. This new Division will provide marketplace services to small, medium and large organizations. In addition to buying and selling goods and services online, successful e-business interaction relies on collaboration between buyers and sellers, facilitating dialogue between parties, automating business processes (e.g., product sourcing, design and production) and managing the wealth of information around each transaction. b2bScene.com will leverage Open Text's collaborative business applications to achieve dynamic collaboration among an organization's employees, business partners and customers in both public and private trading communities. b2bScene.com will host and support a public and a member-driven Internet marketplace, offering access to services through a personalized interface. Kirk Roberts, formerly Senior Vice President, Customer Services and Information Technology, Open Text Corporation, have been appointed President of the new Division.www.b2bscene.com, www.opentext.com

MEDIAPLEX ANNOUNCES BETA OF OPEN EXCHANGE FOR ADVERTISING INDUSTRY
2/23/00

Mediaplex, Inc. reported that the open standards initiative, adXML.org, launched in December 1999, has achieved an earlier-than-anticipated milestone with the upcoming launch of its first beta test. This initial release was designed by Mediaplex and subsequently enhanced by adXML.org's nine subcommittees, represented by 46 participating companies from a wide range of industry sectors. Established as a vendor-neutral global organization, the mission of adXML.org is to define and advance a common XML-based vocabulary for automating the buy/sell transactions of the advertising industry. Subcommittees have been defined for both traditional and new media as well as digital asset management software. Subcommittees for traditional media include print, TV, radio and outdoor; subcommittees for new media include online, e-mail, set-top box/broadband and the virtually untapped wireless market. The self-describing adXML is a common language that describes data structures and types for cross-business communication and supply chain management among advertisers, agencies and publishers. The technology initiative offers significant time- and cost-efficiencies by enabling real-time automation of all advertising business transactions, including insertion and change orders, requests for proposals and bids, inventory and rate cards, and even creative content. www.adxml.org

Who would have thought? An XML application for ads! Of course it makes sense. It just sounds strange if you think back to the descriptive versus prescriptive markup battles of the 80s.

SAS ANNOUNCES ENTERPRISE REPORTER 2.5 WITH XML SUPPORT
2/23/00

SAS Institute announced the availability of Enterprise Reporter software, Release 2.5. Enterprise Reporter allows IT departments to meet end-user reporting needs within one end-user reporting suite. This ensures data consistency across enterprise reporting, reducing the time IT departments spend trying to resolve inconsistencies between reports produced from data warehouses with different end-user reporting tools. New XML support improves end-users' ability to share information by allowing them to push intelligence in one report into another user's XML application. The new re-

lease of Enterprise Reporter exploits the XML standard with the SAS Document Viewer, a Windows application that allows users to browse, print and e-mail XML-based files. Users can create a report in XML and then push that information into other applications in the XML format. This is the first step in providing full document exchange between the server and any client application in the next generation of Enterprise Reporter. SAS Institute has included the Batch Builder in Enterprise Reporter, Release 2.5. The Batch Builder creates predefined reports in batch mode on the report server. Enterprise Reporter, Release 2.5, is compatible with Version 8 of the SAS System. www.sas.com

FIORANO LAUNCHES FIORANOMQ 4.0 B2B EDITION WITH XML INTEROPERABILITY
2/23/00

Fiorano Software, Inc. announced version 4.0 of the FioranoMQ B2B Edition–the Java technology-based enterprise messaging server with key new features including enhanced security, XML interoperability, and web-based access. FioranoMQ 4.0 combines the benefits of a high-performance, secure, Java Messaging Server (JMS) with business-to-business (B2B) application integration. Enterprise developers can use the XML Interoperability Toolkit to create scalable applications that can be extended to communicate with any external system including those from trading partners, customers, suppliers, and distributors. FioranoMQ 4.0 also allows administrators to configure Software Firewalls, a messaging filtering system for creating highly secure, message applications. Plus, web access support enables web-based clients to access any enterprise Java technology-based messaging system for delivering truly distributed Internet applications. FioranoMQ 4.0 fully complies with the Java Message Server (JMS) 1.02 specification. JMS is a key component of Sun Microsystems' Java 2 Platform, Enterprise Edition for the delivery of scalable, enterprise applications. FioranoMQ 4.0 is able to integrate ERP and legacy applications across corporate firewalls, with secure, guaranteed XML-based messaging. As the adoption of XML-based standards continues to accelerate, FioranoMQ 4.0 ensures the development of open trading communities across multiple industries as it supports all major business-to-business initiatives and XML standards. www.fiorano.com

FLYPAPER.COM ANNOUNCES RELEASE OF TEAMSPACE
2/23/00

ASP flypaper.com announced the immediate availability of TeamSpace, a web-based team collaboration and information sharing application. TeamSpace is a project collaboration application that can be totally rebranded and customized with just a web browser. TeamSpace features include browser-based authoring tools, group calendars, threaded discussion, document vaults, and robust security features. TeamSpace is especially valuable for professionals, systems integrators and consulting organizations that wish to share information and collaborate with their customers via the web. TeamSpace is rebrandable and customizable in the field using a web browser. Flypaper.com's TeamSpace collaboration application is deployable in minutes, highly reliable, scales to millions of users, and can be created by anyone, anytime using their web browser. TeamSpace is easy to use and enables project teams to effectively communicate and share information over the web. TeamSpace is available immediately. www.flypaper.com

IONA ANNOUNCES ACQUISITION OF XML TOOL VENDOR WATERSHED TECHNOLOGIES
2/23/00

IONA Technologies announced it has signed a definitive agreement to purchase substantially all of the assets of Watershed Technologies of Waltham, Massachusetts for $13.2 million in cash and IONA stock. This acquisition is expected to be accounted for as a purchase and is expected to close in the March quarter. Watershed Technologies is a privately held company that provides XML-based tools and services for building standards-based business-to-business and business-to-consumer portals. The addition of Watershed's XML technology and services to IONA will enhance the iPortal Suite and strengthen IONA's ability to deliver it to market. Watershed's product offerings will deliver capabilities for XML, SOAP, Enterprise Java Beans, B2B interaction capabilities, portal and GUI frameworks for content and presentation development, and vertical market portal templates for industries such as healthcare. These standards-based technologies will be incorporated as plug-ins into the iPortal Server. www.iona.com

SyncML Initiative Founded to Develop Standard for Data Synchronization
2/22/00

IBM, Lotus, Motorola, Nokia, Palm, Inc., Psion and Starfish Software announced today they have founded The SyncML Initative. The SyncML Initiative develops and promotes an open industry specification for universal data synchronization of remote data and personal information across multiple networks, platforms and devices. SyncML is an XML-based data synchronization protocol designed to create the optimal mobile computing experience by supporting enhanced data synchronization, including e-mail, calendar, contact management information, enterprise data stored in databases, Web-based documents and new forms of content from systems available in the future. The SyncML Initiative is open for industry partners to join in developing the specification. The SyncML specification will enable the creation of interoperable wireless and wireline data synchronization products across corporate servers, Web servers, computers, laptops, PDAs, handheld computers, mobile phones and other mobile devices, regardless of platform or manufacturer. The founding members of The SyncML Initiative have identified the following goals to achieve the successful development and adoption of an industry-wide data synchronization standard: Leverage existing open standards for structured data representation and industry object types; Operate over wireless and wireline networks; Support a variety of transport protocols; Support arbitrary networked data; Provide data access from a variety of applications; Connect mobile devices regardless of platform or manufacturer; Use existing Internet and Web standards and technologies; And provide easily accessible code for enabling support for the specification The SyncML Initiative will leverage XML, MIME, the vCard and the iCalendar to represent Internet Data, email information, personal contact information and calendaring information. Extending beyond currently available data synchronization technologies, SyncML will enable synchronization among wireless and wireline networked data, computers, laptops, handheld computers, PDAs, mobile handset and other mobile devices. www.syncml.org

This is a big problem and a bit daunting. We wish this group luck.

IXOS to Provide ASP-Based Document Management
2/22/00

IXOS Software AG announced a new ASP initiative, initially targeted at small and medium-sized enterprises. IXOS aims to help them gain access to efficient eBusiness document management and archiving through the deployment of IXOS products by ASP hosts. The ASP initiative is a major extension to the existing sales and delivery channels of IXOS and enables the Company to address both existing and new market segments in an additional dimension. In selecting ASP partners, IXOS plans to focus on successful hosts of the SAP R/3 application. www.ixos.com

ASPs are hot items these days as you know if you've read our main article this month. Here is a document management solution. One of the many examples of old and new in the news this month!

BrainDock Portal to Provide Information & Services for WAP Phones
2/18/00

BrainDock.com announced a new service to deliver content and applications to WAP enabled smart phones and other wireless information devices. BrainDock.net will serve as a wireless Application Service Provider (wASP), providing a complementary suite of services to BrainDock's existing electronic software distribution business. Launching in May 2000, BrainDock.net will provide a broad spectrum of content and services to wireless device users. BrainDock.com does not sell to consumers directly, but provides e-tailers with the tools to build online storefronts and a choice of products to full the store. BrainDock performs transaction processing, credit card validation and provides a secure download. Strategic member e-tailers include Psion PLC, Widget Software Ltd., NWT.com, 21store, Palmtop Italia, and Azimuth. The launch of BrainDock.net will provide developers with another avenue to bring their value-added offerings to market, providing e-tailers with a broader audience for sales of products and services. www.braindock.com

ICC.NET RELEASES XML-BASED DOCUMENT CAPABILITY
2/16/00

Internet Commerce Corporation (ICC) announced the addition of new XML based capabilities to their Internet EC solutions. Designed for the vast number of suppliers who are not EDI- enabled, this new feature allows small and medium-sized suppliers to connect into EDI-based supply chains through the Internet. Large companies can transmit EDI data to small suppliers who can then receive and respond to this information through their browser. The XML- based service provides a client-server-like closed-loop environment, which eliminates the need to rekey information that originated with a previously received document set. Incorporating the customer's own data management rules, this real-time document turnaround capability shortens the user learning cycle, and negates transposition errors and non-compliant document sets. ICC's unique new feature utilizes XML to automatically pre-populate response documents. Client-side editing insures that required fields are properly filled and the document meets all business rules. A unique mapping feature allows customer-specific, familiar forms to be quickly and easily defined for browser display. With the new feature, a large company can transmit EDI and automatically have it mapped to a browser-based form such as a purchase order. The user can "respond" to a purchase order with an invoice, which is automatically pre-populated, edit it online, and transmit it back to the large company as an EDI stream. This creates a closed-loop electronic solution. www.icc.net

FILENET'S PANAGON ESOLUTIONS PARTNERS WITH AUTONOMY
2/16/00

Panagon eSolutions, and Autonomy announced a strategic partnership to add Autonomy's categorization and personalization technology to Panagon eSolutions' portal products. With Autonomy technology, Panagon eSolutions will fine-tune its identification and classification tools for portal users. The added technology also allows Panagon eSolutions to address portal applications for tracking how content is used by constituents – to determine its value and establish best practices approaches in terms of leveraging key content.
www.panagonesolutions.com,
www.autonomy.com

Another example of the marriage of old and new.

NETPACE LAUNCHES XML B2B FRAMEWORK SOLUTION
2/16/00

NetPace launched an integrated B2B platform, enabling business-to-business commerce across industries. NetPace's B2B Framework Server (NFS) at http://b2b.netpace.com is a complete XML-based, platform independent process for supply chain management automation. As part of the B2B NFS, NetPace has also released a working prototype demonstrating a typical supply chain process in the automotive industry. Contrary to traditional applications that use Web Server-specific solutions for data exchange over the Web, this framework uses XML as its native data format. The XML framework allows the application to run on any available platform and allows integration with the existing ERP solutions such as Oracle, PeopleSoft, SAP, and others. B2B NFS is open enough to be implemented in virtually all types of industries. The prototype simulates a real world scenario and demonstrates how NFS can help trading partners to leverage the Internet, increasing business efficiency.
www.netpace.com

KINECTA CORPORATION ANNOUNCES KINECTA INTERACT
2/15/00

Kinecta Corporation (formerly ShiftKey, Inc.) introduced Kinecta Interact, the company's core platform designed to enable businesses to automatically exchange, manage and transform distributed information. Kinecta Interact is a Distributed Information Management platform, which consists of the high-performance Kinecta Interact Server and Kinecta Interact Subscriber (upgraded versions of the company's ShiftKey Syndication Server and SiClone Subscriber, respectively). Kinecta Interact version 3.0 includes a new user interface and several new features that enhance and extend the capabilities of the platform. The company's Java-based, ICE- (Information and Content Exchange) compliant Kinecta Interact platform enables customers to manage thousands of unique information relationships between any number of subscribers. An application of XML, ICE provides a common format for the automatic, controlled exchange and management of online information. Kinecta Interact is composed of two components: The Kinecta Interact Server creates and manages packages of digital assets, called subscriptions, and delivers them to an online network of subscribers. These packages can be automatically and dynamically delivered at any frequency and to any number of subscribers. The Kinecta Interact Subscriber

automatically receives, repurposes, and redistributes digital information into any local content repository type (database, file directory, Web server or content management system). It also incorporates Kinecta's AdaptiveContent technology, which customizes and transforms the content changing its graphical look and feel, or repurposing it to fit into different display formats or output devices such as PDAs and WAP phones. Kinecta is also introducing a free Software Developer's Kit, with several new APIs to allow extensibility and easier integration with content management and publishing systems. Kinecta Interact 3.0 is expected to begin shipping in March and will be available to existing and new customers at www.kinecta.com

Kinecta and their competition have a serious role to play in the future of content applications. This is still an area whose time has yet to come, but it could happen soon.

EXCALIBUR ANNOUNCES OEM AGREEMENT WITH DATACHANNEL
2/15/00

Excalibur Technologies announced a technology licensing agreement with DataChannel, Inc. The agreement gives DataChannel rights to integrate Excalibur RetrievalWare, an intelligent, Web-based, search application into DataChannel Server 4.0 (DCS 4.0). By incorporating Excalibur Retrieval-Ware's search functionality, DataChannel's XML-based portal server delivers enhanced capabilities for retrieving and categorizing all enterprise data resources for employees, customers, partners and stakeholders through a customized, personal, and secure e-business interface that delivers dynamic applications. www.datachannel.com, www.excalib.com

Yet one more example of old and new! Although we have to add that Excalibur's technology has always been kind of new even though they have been around for a while. For example, they may have been the first with image-based searching (find what looks like… kind of stuff).

INFORMATION ARCHITECTS TO DELIVER XML-BASED SYNDICATION & AGGREGATION FOR LINUX
2/15/00

Information Architects (iA) announced that it has joined the Red Hat Independent Software Vendor Partner Program, to deliver Linux-based solutions for driving eBusiness across the Net. Red Hat's ISV

Partners Program is for independent software vendors, and provides support and access to the Red Hat Linux community. Through the ISV Partners Program, the Red Hat user community will receive product updates and advanced support of the Metaphoria Framework. Metaphoria leverages the power of XML and JAVA, enabling companies to cost-effectively create or participate in emerging B-to-B environments by automating the process of formatting and syndicating content along with complete commerce functionality, to any Website or device connected to the Net. www.ia.com

BOWSTREET ALLIES WITH MARKETSOFT & PARTNERWARE
2/15/00

Bowstreet announced that it has signed marketing agreements with two channel-focused solutions partners, Partnerware Technologies, Inc. and MarketSoft Corporation. Under the agreements, the companies will offer joint software solutions that help enterprises manage their indirect partners online through lead management and the customization of information to ultimately execute channel programs more quickly and cost-effectively. Both Partnerware and MarketSoft will market The Bowstreet Web Automation Factory in conjunction with their partner relationship management and lead management software to the enterprise marketplace. Bowstreet, in turn, will recommend the Partnerware and MarketSoft solutions to its rapidly growing list of Fortune 500 and Internet-based customers. www.marketsoft.com, www.partnerware.com, www.bowstreet.com

STEP UK LAUNCHES X2X
2/14/00

STEP UK Ltd. announced the launch of X2X the XML XLink engine. X2X allows for the creation, management and manipulation of link information. X2X allows linking between documents and information resources without needing to change either of the 'source' or 'target' documents that are being linked. X2X removes the requirement to insert link information inside document content. The Links are not stored in the document. X2X has an extensible architecture to allow resources to reside in any data repository. X2X stores links independently of any documents and provides facilities to dynamically insert external link structures into documents on demand. X2X stores all the link information within an ODBC/ JDBC enabled database, e.g. Oracle or SQL Server. X2X is developed in Java for cross platform operation. X2X is implemented using fundamental linking concepts and understands links defined using Xlink

links defined using Xlink and Xpath. X2X is currently supported on Windows 95, 98 and NT 4.0 and Red Hat Linux 6.0. Support for Sun Solaris and Hewlett Packard UX will soon follow. www.stepuk.com

This is an important capability and not at all easy to accomplish. We don't know anything about how or if it works, but this is worth checking out.

PLUMTREE & INTERWOVEN DELIVER B2B EXCHANGE THROUGH CROSS-SYNDICATION
2/14/00

Plumtree Software announced a partnership with Interwoven, Inc. The two companies have agreed to co-market and co-sell a joint solution that helps customers share Web and enterprise resources between corporate Web sites and corporate portals. The joint solution expands the number of enterprise application components, Internet services, and Web content that can be syndicated to and from the Plumtree Corporate Portal, and managed by Interwoven TeamSite. Plumtree's new syndication technology allows Plumtree Portal Gadgets to be widely exported to partners and suppliers. Together, these complementary technologies allow customers to maximize the effectiveness of all Web and enterprise application resources across the extended enterprise. Plumtree Portal Gadgets represent dynamic enterprise application components or Internet services, which can, for example, be used to display sales figures from a database, inventory levels from a supply chain application, unread messages from an e-mail system, or market news from the Internet. Plumtree can now, through its syndication technology, periodically export gadgets as XML objects to TeamSite. TeamSite can then manage each gadget update through a workflow approval process. The portal can thus export gadgets directly to TeamSite or to customer or partner sites, across the Internet, managed by TeamSite. www.interwoven.com, www.plumtree.com

VIGNETTE LAUNCHES STORYSERVER 5.0
2/14/00

Vignette Corp. announced the general availability of StoryServer 5.0, the newest version of the company's product. New features include: Enhanced performance and scalability. StoryServer 5 can provide 30% to 150% improvement in system throughput and scalability – Financial grade security. The standards-based security architecture of

StoryServer 5.0 is built on a pervasive security layer using SSL, digital certificates, industrial-strength encryption technology and LDAP-based user management. – And, enriched personalization capabilities. StoryServer 5.0 enhances personalization services with a new recommendation agent, based on the latest version of Net Perceptions Recommendation Engine. The new recommendation agent enables a wider range of personalized recommendations with response times that are up to ten times faster than its standard-setting predecessor. Also, StoryServer 5.0 has been extended to provide out-of-the-box support for enterprise applications that utilize either COM objects or Enterprise Java Beans (EJB). This capability enables rapid deployment of e-business applications where integration with transactional business logic hosted in application servers such as IBM's WebSphere Application Server, Microsoft Transaction Server (MTS), Oracle's Application Server, and BEA's WebLogic is critical. StoryServer 5.0, available from Vignette and certified resellers, is being shipped to current customers at no cost. www.vignette.com

EBUSINESS TECHNOLOGIES UNVEILS DYNABASE 4.0
2/10/00

eBusiness Technologies announced DynaBase 4.0, a new release of their XML-enabled Web content management and dynamic delivery solution. DynaBase 4.0 delivers Web publishing capabilities that will enable e-businesses to reduce their time to market, lower operating costs, increase opportunities to generate sales and enhance customer relationships. Among the new features of DynaBase 4.0 are: Web Builder, a set of XML tags that enable sites to build dynamic, personalized content without complex scripting or programming; Web Manager Pro, a Java-based application designed for managers and content contributors that enables remote content management access; Web Author, an easy-to-use, browser-based content contribution client designed for knowledge and non-technical users; Web Starter, a fully functional sample Web site that includes examples of the most common e-business applications built with the Web Builder tag set; and Web Tracer, a browser-based application that enables users to debug and monitor their scripts in real time. DynaBase 4.0 includes server- and client-side components. The server-side components run on Windows NT 4.0 and Sun Solaris 2.6. The DynaBase Web server plug-in runs under Netscape Enterprise Server 3.6 and IIE 4.0. The client components, which provide access to the content management and production capabilities of DynaBase, run on Windows 95/98/NT (Web Manager), Mac

8.1 (Web Author) and Sun Solaris 2.6 (Web Author). DynaBase 4.0 will be available in March 2000 with prices starting at $60,000.
www.ebt.com

VISA INTRODUCES XML SPEC FOR GLOBAL COMMERCIAL CARD MARKET
2/9/00

Visa International has introduced a new specification that will increase a corporation's ability to automate B2B purchasing functions and monitor travel and entertainment expenses worldwide - both on the Internet and in the physical world. The new Visa Global Invoice Specification uses XML to exchange invoice and payment data across industries and technical processing platforms. Implementation of the specification enables corporations to negotiate prices and control costs, as well as increase productivity by eliminating manual processes. The new Visa Global XML Invoice Specification was developed with Visa technology partners Commerce One, IBM, Sun Microsystems, Inc. and ValiCert, Inc. These partners provided Visa with an extensive review, validating Visa's efforts to use XML technology and supporting Visa's contribution to the buyer / supplier value chain of enhanced data. With its use, corporate clients will have a standard way to process detailed information on procurement transactions, as well as T&E spending on airline travel, hotels and car rental. In the near future, Visa plans to expand the specification to support other merchant sectors including healthcare, maintenance, repair & operations (MRO) and fleet services. Visa is also supporting the global invoice needs of buyers and sellers around the world who choose to use the specification for their own invoice processing and payment services. This means that developers may use the specification independent of the payment brand and can integrate multiple payment types into their data-flow processes. Visa has compiled a comprehensive list of data elements used in most invoices and has classified them into the following information areas: Buyer/Supplier, Shipping, Tax, Payment, Currency, Discount, and Line Item Detail. Visa can also deliver the XML invoice data across VisaNet, Visa's global network. Visa used the Commerce One Common Business Library (xCBL) as the foundation for the Visa Global XML Invoice Specification and is working with several international XML governing bodies, including ebXML, for its official adoption as a standard. Other international standards organizations include Oasis/XML.org, and Microsoft BizTalk. Visa will work with Members worldwide to install the new Visa Global XML Invoice Specification and has conducted a pilot project in the European Un-

ion, which has successfully proved that the specification can accommodate the information collection and delivery needs of all commercial users. www.visa.com/xml.

*We're all for this kind of thing. But hopefully VISA has been working with the standards organizations it mentions **before** they actually completed this spec.*

FIRST CALL LAUNCHES XML AUTHORING TOOL FOR BROKERAGE FIRMS
2/9/00

First Call has launched FIRST CALL Templates, a Web-based authoring tool aimed at facilitating the research production process at brokerage firms. With Templates, sell-side analysts are able to create and edit new notes and research reports, efficiently move these documents through the production channels, and accurately index and convert documents for electronic distribution. Templates utilize XML, allowing for greater customization of the product. Users of Templates may use the system's standard template types, such as Morning Meeting Note or Industry Report, or they may create, store and use their own templates. They also are able to save indexes for future use and are able to easily access their index criteria by ticker, industry, analyst, country, subject or headline. Templates' advanced indexing capabilities allow for more accurate and targeted search results by institutional money managers accessing the research documents. The service also offers disclaimers, which may be customized for specific tickers. The XML technology used in Templates allows clients to customize and pre-populate specific fields in a document, including analyst and ticker information. Templates can also be used to update a broker's quantitative information on the FIRST CALL Network. With the use of XML, earnings estimate information is easily tagged and extracted from Excel spreadsheets. XML also allows for the efficient conversion of documents to various file formats. Users may edit, approve, or hold a document at each stage of the production process - from creation, editorial, and compliance to distribution. Since the research document is available in an electronic format, it efficiently moves through the approval process. E-mail alerts allow users to e-mail each other when the document is ready for the next stage of the production process. Users are also able to track the production status of their research document at any time. Once a document has been published, a copy is sent to the brokerage firm's FTP site, providing the firm with a copy of the

document for their records.
www.thomsonfinancial.com

This is a good example of the appropriate way to think about the impact of XML. It is completely misleading to measure mainstream software vendor revenues to determine "market size" and use that to determine importance. It is the sum of specialized applications and in-house built solutions that make up the XML market. Don't pay attention to any market research numbers that don't somehow incorporate all these kinds of activities. (By the way we are not picking on any particular firm here. Also keep in mind that this is not an easy area to track).

QUARK WEB-ENABLES QUARKXPRESS IN 5.0
2/9/00

Quark Inc. took the wraps off QuarkXPress 5.0, unveiling core technologies designed to streamline the process of making content flexible and appropriate to its delivery medium. Quark said they will continue to improve the set of features in QuarkXPress, and add HTML and XML tools for Web communications, giving publishers the ability to publish to multiple media as easily as to one. QuarkXPress 5.0 software will allow users to design and lay out documents for export as HTML, including support for image maps, rollovers, meta tags, and forms. Users will be able to create hyperlinks and control all basic HTML page options, such as background images and page titles. The QuarkXPress style sheet feature will be complimented by cascading style sheet (CSS) formatting for the Web. The HTML code generated by QuarkXPress 5.0 will be table-based for compatibility with version 4.0 browsers and above. Quark will bundle the avenue.quark software free with QuarkXPress 5.0, giving every copy of QuarkXPress round-trip support for XML. Avenue.quark is XTensions software that allows publishers to richly describe their QuarkXPress content in XML or automatically insert and format XML content in a QuarkXPress document. QuarkXPress 5.0 is expected to ship in the fourth quarter of this year. www.quark.com

Well, we have to say it's about time. Hopefully Quark will now provide us with some excellent composition and layout software for the 90s and beyond.

XYENTERPRISE ANNOUNCES AVAILABILITY OF CONTENT@
2/9/00

Xyvision Enterprise Solutions Inc. announced the availability of its new content management appli-

cation, Content@ (pronounced Contenta). Content@ provides content management for collaborative workgroups using Microsoft Word by storing and managing Word document components in a dynamic database repository. Content@ offers integrated workflow, meta-data support, full-text search, and it facilitates the re-use of document components for web, print, and other media. Content@ offers companies a way to significantly reduce the time required to create and distribute business critical documents such as policies and procedures, proposals, financial reports, marketing materials, and many other documents created in Microsoft Word. Content@ includes a new XML workflow wizard which enables users and organizations to define standard data creation and distribution processes and create XML workflows to automate these processes. Content@ is built on top of XyEnterprise's Parlance Content Manager and its workflow tools. In a Content@ environment, a user can update content in the repository which can invoke web site updates, create new publications, send e-mail notices to end users, distribute documents in a PDF or printed format, and even send communications to portable devices. With Content@, users can store complete Word files or components of Word files in DOC, RTF, XML, or HTML format. This content can also include text, spreadsheets, graphics, presentations, sound, and video. Content@ is currently available for early adopters with general availability in March 2000. Basic systems, including 10 user seats, server, and COM API start around $50,000. Content@ server runs on Windows NT, Sun Solaris, and IBM AIX with clients on Windows 98 and NT. Content@ uses Oracle and other databases and supports Word 97 and Word 2000. www.xyenterprise.com

MICROSOFT, OTHERS ANNOUNCE SUPPORT FOR LRN
2/8/00

Microsoft Corp. and members of the eLearning community announced support for Learning Resource Interchange (LRN), the first commercial implementation of the Instructional Management Systems (IMS) Content and Management Systems Specification developed by the eLearning industry and the IMS Global Learning Consortium. LRN is an XML-based schema that defines course content, allowing organizations and eLearning providers to easily create and manage compatible online learning content. LRN helps customers maximize their investment in eLearning by enabling a wider range of interoperable content and applications than currently exists today. A number of eLearning companies announced support for LRN. These include content developers such as The Forum Corp.,

NETg and SmartForce, as well as eLearning platform and services companies such as Blackboard.com, Cambridge Technology Partners, Centra Software Inc., Click2learn.com Inc., DigitalThink Inc., eCollege.com, Eduprise.com, Information Management Group (IMG), IntraLearn Software Corp., KnowledgePool, Pinnacle Multimedia, SmartForce, Southrock and WINeducation.com. Microsoft also announced that online learning content from Microsoft Press, Microsoft Developer Network (MSDN) and Microsoft Official Curriculum would support LRN in all forthcoming content. To provide content and technology partners with the information and tools required to create LRN-compatible products and content, Microsoft has released the LRN Toolkit 1.0. With it, organizations can easily create, edit and update content structure using any standard XML editor, including Microsoft Office. The toolkit is available now and includes the LRN Viewer, LRN Validator and LRN Samples, including two LRN-compatible eBooks from Microsoft Press and an MSDN developer course on Windows 2000. The Microsoft LRN Toolkit 1.0 is available for free download at www.microsoft.com/elearn/. Additional information on the IMS Content Package Specification can be found at www.imsproject.org/

Also, of course, see the article by Dick Vacca in the Gilbane Report, Vol 7 Num 7 on the IMS project.

WEBVISION LAUNCHES XML-BASED SUPPLY CHAIN AUTOMATION APP TO ENABLE EDI
2/7/00

WebVision has launched WEBtropolis XDE (XML Data Exchange), a stand-alone application as well as a complement to existing WEBtropolis products such as ORDERnet, AUCTIONnet, and BIDtropolis. It is the first of WebVision's applications to become XML-enabled. The product, available today, is designed to help large organizations using Internet technology as an infrastructure for optimizing the supply chain among trading partners, and making it possible for companies to replace Legacy EDI-based systems and processes. For current WebVision customers, WEBtropolis XDE provides a new data interchange format for any of their new or existing WebVision applications. WEBtropolis XDE version 1.0 has the ability to map to different XML document formats such as Biztalk from Microsoft and Rosettanet. By integrating with Biztalk from Microsoft and Rosettanet, WEBtropolis XDE provides WebVision customers with the ability to put all of the XML pieces together. WebVision is initially targeting suppliers and manufacturers with Oracle and MS SQL Server based ERP systems, such

as SAGE and Oracle Financials. Such companies are committed to replacing older EDI systems with standard XML to improve their purchasing, distribution, product delivery and dynamic decision-making abilities. Because WEBTropolis XDE is based on XML, WEBtropolis XDE features support for Oracle 8i Applications, requiring little or no programming for integration. WEBtropolis XDE is available for Windows NT and Windows 2000. Minimum system requirements are Pentium III, 1GB of available Hard Drive space and 128 MB of RAM. Price for the application is based on number of CPUs. Cost per CPU is $10,000.
www.webvision.com

See our last month's issue with an article on XML and EDI by Bill Trippe.

AUTONOMY UNVEILS KENJIN
2/7/00

Autonomy, Inc., announced Kenjin, a service that automatically delivers information (regardless of its location) to consumers as they use their personal computer. With Kenjin, consumers no longer have to stop what they are doing to search for information. Instead, as they surf the Web, draft an e-mail or write a letter, Kenjin automatically connects and delivers related information from the Web, the hard drive and Kenjin users with similar interests. Kenjin uses Autonomy's core technology, which is capable of analyzing a piece of text and identifying its main ideas. This technology gives Kenjin the ability to understand the concepts, not keywords, in browsers, e-mail or desktop applications. After conducting a real-time analysis of the text in a Web page, Word document or e-mail message, Kenjin automatically recommends links to relevant information from the Web, the PC or individuals that have opted to share their interests with others. The links are displayed in a small window or a tool bar. Kenjin represents the first time consumers have access to the technology found in Autonomy's products. Kenjin is expected to be available in May 2000. Consumers will be able to download this free service from Autonomy's Web site.
www.autonomy.com/kenjin

WEBFORIA & NETDOCUMENTS ANNOUNCE PARTNERSHIP
2/7/00

Webforia announced that it has partnered with Orem, Utah-based NetDocuments. Under the terms of the partnership, Webforia will offer NetDocuments' services on its Web site, webforia.com. Users can access NetDocuments' services through

webforia.com as well as through Webforia's Clickbar. NetDocuments, which requires only a browser, is a file/document storage and sharing eService that gives the mass market of consumer and business users access to an all-in-one service, from secure and trusted storage, organization and application integration to document collaboration and virtual delivery. www.webforia.com

DIGIMARC ADOPTS XML FOR DIGITAL WATERMARKING TECHNOLOGY
2/4/00

Digimarc Corporation announced that it has adopted XML for use in the MediaBridge system, the company's innovation bridging traditional and online media. The MediaBridge system allows readers to link from interesting content in traditional media publications to relevant Internet destinations merely by showing the page to a Digimarc enabled PC camera. Digimarc elected to use XML because it provides an independent, open standard supported by major software vendors for the exchange of data from magazine content to Web sites worldwide. Digimarc endorsed the Digital Imaging Group's (DIG) first public release of the DIG35 image metadata specification, a way to manage images across a wide range of consumer, business and professional applications. The DIG35 Working Draft will be available for public review and comment from March 1-29, 2000. To be included on the notification list for public comment, send an email to dig35comment@digitalimaging.org. The final specification is planned for release in the third quarter of 2000. www.digimarc.com

STACK OVERFLOW TO DEBUT XHTML SERVER
2/4/00

Stack Overflow will debut its latest XHTML-based technology, codenamed Chameleon, at Seybold Boston on Wednesday, 9 February. Chameleon is the server-side complement to Stack Overflow's recently-launched Mozquito Factory, an XML authoring environment for XHTML. The Mozquito Factory is a client-side, stand-alone authoring environment for XHTML that offers extensibility and freedom from current browser limitations, as well as a significant reduction in authoring costs. The launch of the Mozquito Factory also introduced users to FML, the Forms Markup Language, a new specification developed by Stack Overflow. Stack Overflow defined FML to bridge current forms markup with the extensibility of XML. Through FML, the Mozquito Factory leverages fourteen new XHTML tags to empower Web developers to create dynamic and interactive Web pages in plain HTML, without client- and server-side scripting. Chameleon employs the same standards-based technology as the Mozquito Factory to reduce the extensive resources currently needed to develop complex Web interfaces. A server-side product, Chameleon leverages this technology to transform XHTML-FML into HTML-plus-JavaScript on demand, whenever a user requests a page. This introduces a range of new opportunities for Web developers: content from a database, common design elements or cookie-derived information can now be integrated into XHTML-FML pages. In turn, new applications can be created in a variety of areas, including community integration, personalization, data maintenance, intranets and more. www.mozquito.org

ONDISPLAY LAUNCHES FREE B2B XML SERVER
2/3/00

OnDisplay, Inc. announced that it will deliver a free business-to-business XML server software for any organization that needs to establish secure, guaranteed exchange with online trading partners. Called XML Connect, the new product enables the exchange of XML business documents – such as purchase orders, invoices, and order confirmations – seamlessly and securely with any other XML Connect user, as well as with users of OnDisplay's CenterStage eBizXchange product. OnDisplay believes that by seeding the market with XML Connect, the company will greatly accelerate the adoption of XML and B2B commerce. Shipping now in limited partner release, XML Connect will be generally available on March 30, 2000, as a free download from www.xmlconnect.net and from OnDisplay's web site. The product will include free online support. The new XML server will support all of the XML schemas on the market. XML Connect also allows B2B e-commerce participants to set up secure connections with their trading partners without the need to purchase and install proprietary software on both ends of the trading partner connection. The new XML Connect product provides guaranteed, secure, real-time delivery of business documents over the Internet. It consists of an XML-based messaging server with an open, published API and supporting documentation. Customers who deploy XML Connect will be able to upgrade their implementations to OnDisplay's CenterStage eBizXchange easily and seamlessly. CenterStage eBizXchange provides scalable B2B integration capabilities for organizations that need to rapidly connect with hundreds or thousands of

trading partners simultaneously. Leveraging the CenterStage 4 platform for "many to many, any to any" B2B integration, CenterStage eBizXchange provides: www.ondisplay.com

W3C ISSUES AUTHORING TOOL ACCESSIBILITY GUIDELINES AS A RECOMMENDATION
2/3/00

The World Wide Web Consortium (W3C) announced the release of the "Authoring Tool Accessibility Guidelines 1.0" (ATAG 1.0) specification, providing guidance to developers on how to design accessible authoring tools that produce accessible Web content. As a W3C Recommendation, the specification is stable, contributes to the universality of the Web, and has been reviewed by the W3C Membership. W3C encourages developers to promote Web accessibility by implementing this Recommendation. The Authoring Tool Accessibility Guidelines 1.0 explain how developers of authoring tools, such as HTML editors and site management tools, can encourage and assist in the production of accessible Web content through prompts, alerts, checking, repair functions, and help files in their tools. In addition to their value to accessibility, many of the principles addressed in the specification, such as the importance of producing and preserving valid markup, promote interoperability of the Web in general. The Guidelines address not only the accessibility of content produced by tools, but also the accessibility of the tool itself. The Web is not a read-only medium, and accessible authoring tools will enable all people to publish to the Web, regardless of disability. The Authoring Tool Accessibility Guidelines 1.0 address a broad range of tools, including WYSIWYG editors, "save-as-HTML" conversion tools, tools that dynamically generate content from databases, formatting tools, image editors, and site management tools. ATAG 1.0 consists of twenty-eight requirements, called "checkpoints," for developing accessible authoring tools that produce accessible content. The checkpoints are organized according to seven overriding design principles, called "guidelines." As with the Web Content Accessibility Guidelines 1.0, ATAG 1.0 checkpoints have three priority levels, which correspond to their importance for accessibility. There is a checklist providing a quick overview of the checkpoints by priority. W3C has made icons available for products claiming any one of the three conformance levels. The Authoring Tool Accessibility Guidelines Working Group is preparing a variety of implementation support materials to assist developers, including the "Techniques for Authoring Tool Accessibility," published today as a W3C Note. At the time of this

release, every requirement of the Guidelines has been implemented by one or more existing tools, though no tool yet satisfies all checkpoints. www.w3.org/WAI

HUMMINGBIRD EIP TO BE INCLUDED IN SuSU LINUX DISTRIBUTION
2/3/00

Hummingbird Communications Ltd. and SuSE announced that the Hummingbird EIP (Enterprise Information Portal) core engine will be included in SuSE's Linux distribution. www.hummingbird.com

DATA INTERCHANGE STANDARDS ASSOCIATION BECOMES NEW HOST OF XML/EDI GROUP
2/2/00

The XML/EDI Group, the largest grass-roots organization advocating XML for business exchanges over the Internet, has joined with the Data Interchange Standards Association (DISA) for management of its business and technical services. The XML/EDI Group and DISA made the announcement at the Electronic Business XML (ebXML) meeting in Orlando, Fla. The XML/EDI Group becomes the latest client of DISA's rapidly growing Collaborative Services Division. Like other Collaborative Services clients, DISA will host the XML/EDI Group's web site and e-mail discussion list, as well as provide a venue for regular meetings of the group. DISA will also provide the XML/EDI Group with publishing and administrative services. The XML/EDI Group began in July 1997 as an ad hoc collection of a few professionals and volunteers in various industries dedicated to promoting and guiding the future of XML standards and products applied to electronic data interchange (EDI). The Group has grown to about 1,700 members focusing on the technology of incorporating XML with e-business particularly for smaller enterprises that have not before been able to use EDI. www.disa.org

HOTPERL ANNOUNCES SEARCH ENGINE POSITIONING APP FOR E-COMMERCE
2/2/00

HOTPerl announced the release of GhostLINK, a comprehensive search engine positioning application designed specifically for eCommerce websites. The typical eCommerce website contains a home

page, half a dozen information pages, and dozens of catalog pages displaying the stores merchandise. The challenge faced by he eCommerce webmaster is that 90% of the websites content is produced "on-the-fly" by the eCommerce shopping cart as visitors navigate the website. Most major search engines are not very reliable when indexing websites, which are designed to be operated "on-the-fly" as these advanced programming techniques generally place navigational control within the domain of the eCommerce program and do not use conventional hypertext links, which the search engine spiders are able to follow. GhostLINK's automatic search engine positioning on-line application individually registers every entry webpage and entry portal on your website with all the major search engines. The Catalog Wizard also automatically creates special portals that guide customers to your merchandise. www.hotperl.com

GROUPSERVE LAUNCHES GROUPDX
2/1/00

GroupServe, Inc. introduced its forum to establish a groupware standard. The forum, known as Groupware Data Exchange (GroupDX - www.groupdx.org), was created to facilitate data exchange among the various groupware applications, and facilitate data synchronization among groupware applications and their individual counterparts. The goal of the GroupDX forum is to provide industrial grade XML DTDs and Object Schemata for Internet groupware applications. This new standard will be known as Groupware Markup Language or GML. As more and more personal devices access the Internet (for example, via WAP-enabled phones, via PDAs, and via voice through regular phone calls), more and more XML languages are being invented where traditional HTML will not suffice. GroupDX.org classifies these languages as "Final Rendition XML", the XML that is rendered in a user's device. GroupDX.org aims to produce a single, semantically oriented "Final Transformation XML" for groupware, an intermediate XML that can be transformed into a "Final Rendition XML". This Final Transformation XML is GML. In December, GroupServe launched the Palmtop version of GroupVine, its web discussion service. The Palmtop version runs on Palm OS devices, Nokia Communicator, and Windows CE devices. GroupServe is providing GroupVine accessibility to WAP-enabled mobile phones in beta this month. Voice access to GroupVine, developed using Motorola's latest technologies, is also available in beta. GroupVine Desktop and GroupVine Palmtop are available at www.groupvine.com. Both versions of GroupVine are offered at no charge. www.groupserve.com

VIGNETTE STORYSERVER INTEGRATED WITH IBM WEBSPHERE COMMERCE SUITE
2/1/00

Vignette Corp. announced its Integration Toolkit for IBM's WebSphere Commerce Suite, an out-of-the-box integration solution for Vignette's Story-Server software and IBM's WebSphere Commerce Suite, formerly Net.Commerce. The Integration Toolkit for WebSphere Commerce Suite is the first of the four Vignette e-business product integrations with IBM software announced in September and designed to help businesses attract and retain online customers and conduct transactions with them. Still to come in the first half of this year are StoryServer integrations with IBM's WebSphere Application Server, DB2 Universal Database, and AIX operating system. The Integration Toolkit for WebSphere Commerce Suite, compatible with StoryServer versions 4 and 5 and WebSphere Commerce Suite version 3.12 or 3.2, is available at no additional charge to current StoryServer customers and available upon request directly from Vignette. To obtain the toolkit, call 888-608-9900 or 512-306-4300 and choose the option for product and sales information. www.vignette.com

MISCELLANY

LETTERS

Thank you for sending along the copy of the Gilbane Report with your piece on XML, EDI, content and commerce. You definitely captured many of the important issues involved in integrating the two technologies. For future reference, you may want to keep an eye on the Electronic Business XML (ebXML) initiative (www.ebxml.org) to develop a global e-business data exchange specification. The ebXML approach seeks to take the valuable lessons from EDI and apply them to the new data exchange models developing on the Web, with synergies providing a whole greater than the sum of its parts. Many of the people in the X12, UN/EDIFACT, and XML/EDI hierarchies are also leaders of the ebXML initiative. They believe, as do I, there probably will not be another opportunity like this one to make it all happen.

Best regards.

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SPECIAL OFFERS

We have arranged for a few of the best journals and newsletters available to provide aggressive discounts to current Gilbane Report subscribers. These are discounts that are not normally available. The following publications are participating: Esther Dyson's *Release 1.,* Jeff Tarter's *Soft•letter,* Seybold Publications' *Report on Internet Publishing,* Seybold Publications' *Report on Publishing Systems, ans* Seybold Publications' *Bulletin.* If you are a current subscriber you can find out how to take advantage of these exceptional savings at www.gilbane.com/Subscribers/Special_Offers. You will need your login and password to access this site.

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We have also made arrangements with a number of organizations to provide Gilbane Report subscription discounts to their members. Current organizations participating are: AIIM — Association for Information and Image Management International, GCA — Graphic Communications Association, OASIS — Organization for the Advancement of Structured information Standards, and the XyUsers Group. See www.gilbane.com/affiliates.htm for additional information.

BACK ISSUES

Issues less than a year old are usually available in both print and PDF for $45. Sometime there are special offers at www.fatbrain.com (just search for "Gilbane"). Issues from 1993 thru 1998 are $15 *if* in print. See www.gilbane.com/back_issues.htm for more information.

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CALENDAR

Xtech 2000, Feb. 27 - March 2, 2000 San Jose Convention Center, San Jose, California, (703) 519-8160. A GCA conference for XML developers. Brings together technical experts, developers, engineers, technical managers, and decision makers for an intensive look at current XML technology and new applications.

ICe Internet Commerce Expo, March 27-30, World Trade Center, Boston MA. The focus of this IDG event is more on e-commerce than the other events suggested, but as you know, we think you need to pay attention no matter what kind of content you deal with.

Documation France 2000, March 27-29, Palais des Congrès, Paris, 33 (0)1 43 48 05 25. The 6th annual Paris Documation covers a broad range of applications for electronic documents and related technologies. This French event is the largest of the Documation series. (Note that your editor co-chairs this event.)

XMLeadership Conference, April 3-5, Orange County Convention Center & Peabody Hotel, Orlando, FL. Chaired by Charles Goldfarb, this conference is designed for executives and covers business issues.

AIIM 2000, April 9-12, Jacob Javits Center, New York, NY. (301) 755-2603. The big annual AIIM event covering all aspects of document management form imaging to content management.

Dynamic Content 2000, May 22-25, Sir Francis Drake Hotel, San Francisco, CA, (781) 871-9000. A new CAP Ventures' conference covering our favorite topic. This event replaces the U.S. Documation conference.