

## XMaLpha Technologies

# XML Business Solutions™

## XML Projects – Principles & Guidelines

### XMaLpha offers:

- XML application design & development
- XML integration
- Legacy data encoding
- Project management
- DTD / Schema design
- Web Services
- Enterprise solutions
- Knowledge transfer
- Java J2SE/J2EE & .NET

XML provides enormous benefits to organizations that adopt its richness in order to deliver fully-convergent, interoperable solutions. XMaLpha applies the following value statements to its work with clients:

- Each organization is unique, although many face similar issues
- Our experience can save our clients considerable time as we have worked through the delivery of XML for other clients
  - This is what we do and we do it very well
- Our clients' data and documents:
  - Contain significant and understandable structure

- Often make extensive re-use of other data and documents
- Are typically ideally suited to representation with standardized XML vocabularies
- Require absolute and uncompromised accuracy
- Tools for proofing, data integrity, validation, and quality assurance are essential
- Manual processing is time-consuming and should be reduced through effective data and systems modeling where possible
- The inter-relationships among data components is often complex
- Capabilities for search and



retrieval is fundamental because of the component nature of many organizations' data

- Timing and turn-around speed is mission-critical
- robust solutions result from projects that emphasize knowledge transfer in a partnering relationship
- Real-world solutions "immortalize the intelligence" in data

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## XMaLpha XML Data Analysis Methodology

XMaLpha Technologies uses a proprietary iterative process with the following key elements:

- Identification of the information needed
- Data gathering from the client and

the client's environment

- Data collection regarding any unfamiliar products and/or concepts
- Comprehensive analysis of the gathered information
- Assembly of the information into

organized structures

- Identification of additional information needed to fill any missing details
- Representation of data structures in industry standard, XML formats
- Repeating of this process



## XML Knowledge Transfer

Real-world knowledge on the design and implementation of XML-based systems is difficult to obtain. Experience with the issues specific to the application of XML technologies in a modern integrated business environment is even more obscure. XMaLpha offers a comprehensive Knowledge Transfer and education program, designed to provide hands-on exposure to XML principles in a

concentrated format. Topics are extensive, but include, at a minimum:

- The rationale for XML in business environments
- How to perform document, structural analysis
- Creation of well-formed XML
- When to use elements versus attribute encoding
- Valid XML using Document Type

Definitions (DTDs) and XML schemata (XSD)

- How document and data authoring works with XML
- Composition and document management
- The role of XSL, XSLT, and XSL-FO in business applications
- Middle-tier scripting and programming with DOM and SAX
- Architectural options
- Data conversion business rules

## XML Technology Architecture

XMaLpha has created sophisticated and comprehensive technology architecture plans in a variety of fields. The technology architecture details the hardware systems, operating systems and commercially available software to be used. It also describes how the systems will be connected, the inter-process communications protocols

and network security structures. Depicting the technology architecture usually consists of:

- Onsite sessions to identify issues and options
- Offsite creation of proposed technology architecture
- Onsite review sessions of a proposed solution

- Offsite creation of the final technology architecture

These and other XMaLpha services include component approaches that have been tuned to address the universe of particular business areas. However, each new XML challenge is unique. There is no magic XML "cookie-cutter".

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**"XML is all about the data. Forget what you know about traditional rendering-based solutions and see the data."**

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## Capturing Current Processes

In many organizations, the current business processes have developed over an extended period of time. When properly analyzed, these contain significant information regarding needs and requirements for applications.

The documentation of process is difficult. However, when the relationships between data structures, time sequences, and organizational roles are properly detailed, the basis for workflow and application functionality naturally

emerges. To ensure high-quality requires subject-matter experts be involved from the project onset. XMaLpha uses a suite of visual applications with proprietary templates developed specifically for XML analysis.

## Project Management Expertise

XMaLpha provides:

- Integration management
- Scope management by consultants, many with 25 years or more experience
- Time management with a thorough appreciation for, and real-world experience with, the pressures and demands of business
- Cost management, and cost-containment expertise
- Quality management using the proprietary XML Business Solutions™ approach
- Human resource management by experts with years of experience on teams ranging from 2 - 265 people
- Risk management with an implicit, experience-based, knowledge of potential technical exposures
- Communications management, using written documentation, online graphical and text-based approaches, project Websites, and regularly scheduled updates, meetings, code reviews, walk-throughs, and directed subject-matter team involvement
- Procurement management, with a breadth of experience that transcends single-vendor solutions and includes complex product and data integration



## Schemata are the Business Rules in XML

At the heart of any successful XML-based project is the suite of document schemata.

A document schema (expressed and encoded as an XML Schema Definition [XSD], Document Type Definition [DTD], or in one of dozens of other alternative XML schema languages) reflects

inter-relationships with other data, search requirements, and business rules.

The creation of the business XML document & data schemata is a time consuming process that requires considerable analysis, a comprehensive knowledge of XML, and ideally, specific experience

with implementing XML in a business environment.

XMaLpha has the experience to make the transition from business rules to XML encoding. We will teach your team to develop schemata based on thorough analysis and understanding of the underlying data constructs.

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**"An understanding of the origin of data, its structure, its use, and its inter-dependencies yields intelligence."**

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## Many Other Key Services...

XMaLpha provides a wide variety of services to address a broad scope of client needs. In addition to those described briefly above, we offer:

- Comprehensive analysis of current document and data structures
- Assembly of composition specifications for XML applications
- Development of stylesheets and rendering control applications
- Creation of sophisticated application and enterprise systems designs
- Preservation and conversion of legacy data
- Migration planning for XML
- Design, creation and execution of test plans
- ... and many other services.



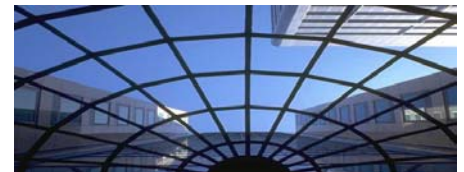
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*"Got Meta-Data?"<sup>®</sup>*

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XMaLpha Technologies is a premier provider of full-scale, industrial-strength, XML solutions. Experts in analysis, design, and implementation, the talented consultants at XMaLpha understand data integration using XML. XMaLpha can show you how to build a totally extensible, easy-to-learn, and richly featured universal solutions with structured data and documents that can be exchanged efficiently over the Web using .NET, Java, and other interoperable technologies. Whether your needs call for business-to-business solutions, sophisticated Web Services, Content Management Systems, end-to-end integration with legacy data, multi-channel publishing, or training on the latest XML technologies, XMaLpha is here to help.



## Looking for more information about XML?

Devan Shepherd, CEO and Chief Technical Officer of XMaLpha Technologies is the author of *"Teach Yourself XML in 21 Days"*, 2/e. Written in 2001, this book continues to offer a user-friendly and approachable tutorial-based introduction to XML.

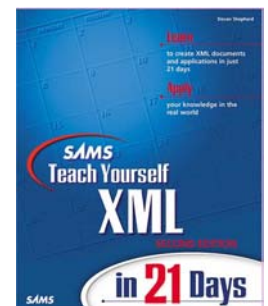
The book begins by explaining the basics, proceeds into structuring and processing with namespaces, XLink, SAX, DOM, and XSLT, and then to presentation and data exchange with browser rendering and the issues surrounding the transferring of data. Coverage of some of the

current 'tools of the trade' is included to bring the reader up to speed on utilities available and how to use them.

This book is designed to provide a thorough introduction to fundamental XML concepts.

- Learn how to structure data with XML
- Understand the principles of well-formed and valid XML documents
- Build XML Schemata and DTD
- Add style to XML with CSS and XSL
- Transform document structures with XSLT

- Write scripts to manipulate XML documents using the Document Object Model (DOM)
- Use the Simple API for XML (SAX) to perform event-based processing of XML



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