

Ecma TC45 – Office Open XML Formats

Jean Paoli & Isabelle Valet-Harper – Microsoft, TC45 co-Chairs
Adam Farquhar – British Library, TC45 Vice Chair

Brian Jones – Microsoft, TC45 Technical Architect

Agenda

- Problem Statement : why Office Open XML now?
- Contributors
- TC45 Terms of Reference (ToR)
- Ecma International, Key to success
- Approval for Ecma TC45 and ToR?

The Universal Role of Documents

- Core to human activities
- Writing represented key milestones in human development
- Access to writing always defined key societal progress
- Across continents and across cultures

- Fortunately - The Information Technology Age enabled the creation of documents simply and massively
- Unfortunately – It is difficult to share, exchange, preserve information – Billions of documents in binary formats

A Vision being realized

- The XML Dream – Changing the world of Information
 - Data Interoperability at a universal scale
 - Databases, Connectivity, Services, Workflow, Documents
 - Unified Vision - Documents and Data
 - XML Community, SGML Community, ISO
 - Charles Goldfarb, Jon Bozak, Tim Berners Lee, Many others

XML Strategy

Built –by design– for Interoperability

- Strategic Industry Alignment XML & XML Web Services standards
- Remove barriers to enable data interoperability e.g. across Documents & Servers
- Enabler for Mobile Devices, Multiple Form Factors
- Enable new scenarios - Document and Data intertwined



Imagine a World of XML Documents

- Data access via spreadsheets, documents, presentations
- Backend LOB systems focused on integration via XML
- Content in formats drive everyday business processes
- More useful web services applications
- Millions of developers
- Smart workflow management
- Powerful content management
- Auditing, tracking, regulatory requirements
- Interoperability across groups, divisions, companies, products
- Public records maintenance
- Preservation of our written digital Heritage

A wide set of interests

A wide set of users

- Industry (e.g. Oil, Optics, Aeronautics)
- Service (e.g. Banking, ...)
- Digital Archival (e.g. Libraries, Public Records)
- Software & Services (e.g. Vendors, Integrators)
- Regulatory Information (e.g. Governments)
- Various sizes of organizations (multinationals, medium or small businesses, individuals)

Why Office Open XML now?

The stars are aligned

- **Industry adoption of XML across Software Infrastructure Across Platforms (Databases, Connectivity, Services, Workflow, Documents)**
- **Wide User Demand**
- **Wide Governments and Public Institutions needs**
- **Digital Preservation becoming critical**

- **We believe**
 - It is great for public and private sector customers – the creators of documents.
 - It is great for enabling new levels of integration with line of business applications.
 - It is great for the industry to drive a new level of opportunities

Challenges for XML Documents

- An immense wealth of information is written in Microsoft Office
- Millions of users created Billions of documents over the past 10 - 20 years
- Migration to XML could be challenging if not undertaken with due care for the past
- A critical demand from users – Backward compatibility with previous documents is critical
- Anything less than backward compatibility is massively disruptive to users and exposed them to loss of data

Office Open XML Formats

- Mature (>20 years) deep, broad set of characteristics used by billions of documents and millions of users – XML design and translation started 9 years ago
- Designed to represent *all* information of .doc, .ppt, .xls in XML
 - 100% compatibility with .doc, .ppt, .xls
 - All format characteristics, styles, content, options in binary formats represented in open XML formats
 - Default format for Microsoft Office from now on
- Billions of existing documents to be converted to XML
 - Free add-ons for past versions
 - Default file format for Office 12
 - Bulk converters for documents

A Historical Day

- Today, Microsoft is asking Ecma to take the keys of a document technology that is widely used by mankind to create written information
- Today we respectfully ask Ecma to help us prepare the future while preserving the past



3.3 Microsoft XML strategy

What makes XML unique is that it can represent structured, unstructured and semi-structured information. With XML there remain no barriers between document processing, content management, ERP and other systems. With XML we shift away from the paper-based document paradigm to one where documents and data are intertwined.

Microsoft has been a very active member of the W3C. They followed on the XML evolution at every step.

All this means that WS barriers have fallen down and this will be part of Windows 2003. MS decided to accelerate this platform into the market place.

MS took the strategic decision of making office system XML compliant. Support for XML is full fledged:

- *No limit to one schema;*
- *Support for custom design schemas;*

Respecting EU / IDABC Recommendations

- **European Union (IDABC)**

<http://europa.eu.int/idabc/en/document/2592/5588>

“The use of open document formats, such as WordML, improves interoperability”

“Microsoft should consider the merits of submitting XML formats to an international standards body of their choice”

Office Open XML Co Sponsors

- Apple
- Barclays Capital*
- BP*
- British Library*
- Essilor*
- Intel Corporation
- Microsoft Corporation
- NextPage Inc.*
- Statoil ASA*
- Toshiba

We hope more companies
will join the TC

* Not currently members of Ecma International

Why Standardize Office Open XML?

- Represents a mature format ready for standardization
- Remove any barriers to adoption, allowing usage in any scenario on any platform
- Collaborative effort with interested parties will ensure that documentation meets widespread needs of developers and the industry
- Microsoft providing royalty free access to MS IP necessary to implement Office Open XML
- Promotes industry leadership for participants, across multiple industry communities

Wide Positive Response Across Continents

- **Kazuhiro Fujisaki, General Manager, Platform Software, Software Division, Hitachi, Ltd.**
 - **Christian Rupp, spokesperson of the Federal Platform Digital Austria**
 - **Gerd Schürmann , Director of the Competence Center and Business Unit for eGovernment, Fraunhofer Institute FOKUS, Berlin**
 - **Janis Reirs, Minister for e-Government, Latvia**
 - **Alan Bellinger, e-Government eGIF Accreditation Authority, United Kingdom**
 - **State of Massachusetts ROMNEY ADMINISTRATION**
- +...So many others (see full text of quotes in the slide comments)

Ecma TC45

**Office Open XML
ToR
Description**

Term of Reference (ToR) for TC45

Scope

The goal of the Technical Committee is to produce a formal standard for office productivity applications within the Ecma International standards process which is fully compatible with the Office Open XML Formats.

The aim is to enable the implementation of the Office Open XML Formats by a wide set of tools and platforms in order to foster interoperability across office productivity applications and with line-of-business systems.

The Technical Committee will also be responsible for the ongoing maintenance and evolution of the standard.

Term of Reference (ToR) for TC45

Introduction

The objective of full compatibility with the Office Open XML Formats is adopted in order to :

- **Guarantee continuous use of the existing base of Microsoft Office documents without losing any of the functionalities**
- **Document all the options, properties, formatting, layout and other information of the existing Microsoft Office document base using the W3C XML 1.0 language**
- **Guarantee interoperability by enabling standard-based XML 1.0 tools to create, read and write files conforming to the standardized file format**
- **Support the needs of governments and businesses to archive and preserve documents using an Open Standardized Format**
- **Enable standard transformations using W3C XSLT (or similar techniques) to extract or repurpose information from the file format**
- **Support integration of custom defined schemas**

Term of Reference (ToR) for TC45

Program of Work

**(1) To Produce a formal Standard for office productivity documents which is fully compatible with the Office Open XML Formats (1)
This includes:**

- **Produce a standard which is fully compatible with the Office Open XML Formats, including full and comprehensive documentation of those formats in the style of an international standard, with particular attention given to enabling the implementation of the Office Open XML Formats by a wide set of tools and platforms in order to foster interoperability across office productivity applications and with line-of-business systems**
- **Produce a comprehensive set of W3C XML Schemas for the Office Open XML Formats, with particular attention given to self documentation of the schemas and testing of the XSDs for validation using a wide variety of XSD tools of the market and cross platform**

(1) To be submitted by Microsoft Corporation

Term of Reference (ToR) for TC45

Program of Work (cont)

- (2) To contribute the Ecma Office Open XML Formats standards to ISO/IEC JTC 1 for approval and adoption by ISO and IEC.

Term of Reference (ToR) for TC45

Program of Work (cont)

Upon completion of the Previous Items, the role of the Technical Committee will be:

- (3) To assume responsibility for maintaining the Ecma Office Open XML standard**
- (4) To evaluate and consider proposals for complementary or additional technology**
- (5) To assume responsibility for the evolution of the Ecma standard while ensuring backward compatibility with the previous versions to guarantee continuity in the use of the current and future formats**
- (6) To establish and maintain liaison with other Ecma TCs and with other Standards Development Organizations (SDOs) as appropriate to facilitate and promulgate the work of the TC**

Ecma International

- **Ecma track record and experience**
 - Excellent industry experience and success
 - Longevity, credibility, broad acceptance
 - International presence
- **Ecma**
 - Successful submittal of ISO approved initiatives & standards
 - ISO standard addresses end user requirement
 - FAST Track program
 - Provide Open XML with guidance and direction for ISO/IEC
 - Submission of Open XML standard for adoption by ISO/IEC JTC 1

Ecma Call to Action

Approval of TC45 & Terms of Reference (ToR)

Questions

- Jean Paoli, Microsoft & Ecma TC45 Co-Chair
 - Email : jeanpa@microsoft.com
 - Phone: +1 (425) 706 5031
- Isabelle Valet-Harper, Microsoft & Ecma TC45 Co-Chair, MS GA Ecma Representative
 - Email : isavh@microsoft.com
 - Phone: +1 (650) 693 2809
- Adam Farquhar, the British Library & Ecma TC45 Vice-Chair Email: Adam.Farquhar@bl.uk
 - Phone: +44 (0)1937 54 6515
- Brian Jones, Microsoft & Ecma TC45 Technical Architect
 - Email: brijones@microsoft.com
 - Phone: +1 (425) 705 4233