

# **OASIS LegalXML Integrated Justice Technical Committee**

## **Exchange Document Methodology, Naming, and Design Rules (MNDR) Subcommittee**

### **Charter**

**January, 2005**

#### **Name**

The subcommittee will be called the Exchange Document Methodology, Naming, and Design Rules (MNDR) Subcommittee of the Integrated Justice Technical Committee.

#### **Statement of Purpose**

The subcommittee's purpose will be to develop and document:

- A methodology for the construction of GJXDM-conformant exchange documents
- Naming and design rules for the artifacts called for by the methodology
- Guidelines for the customization of GJXDM schema structures
- Context drivers for integrated justice

The Integrated Justice Technical Committee expects this work to benefit the justice community in the following ways:

- It will improve interoperability by promoting consistent use of GJXDM in constructing schemas
- It will lower risk and improve efficiency of projects to establish exchanges between justice partners, by disseminating best practices
- It will reduce the effort involved in identifying exchange document development best practices, by consolidating them in (or at least referencing them from) one single place
- Where possible, it will provide a formal, normative standard that exchange partners can use to establish criteria for quality assurance (for example, in contracts with system integration vendors)

In chartering this subcommittee, the Integrated Justice Technical Committee explicitly recognizes that this work is patterned after the successful development of similar methodology, naming, and design rules in the OASIS UBL Technical Committee.

## **Scope of Work**

The MNDR Subcommittee is tasked with developing a document (or small set of documents) that follow(s) the outline discussed in the technical committee's December, 2004, face-to-face meeting. This outline has been posted to the TC mailing list and the documents area of the TC website; it is also attached as an appendix to this charter. The document shall be called the Exchange Document Methodology, Naming, and Design Rules (MNDR) document.

In the particular area of context drivers, the subcommittee will at least establish the concept of and need for context drivers in the initial version of the MNDR document. If the subcommittee has time available prior to the target completion date, it may attempt to identify an initial list of context drivers for the TC's consideration.

In developing these proposed rules and guidelines, the subcommittee will consult and collaborate with other groups in the justice community (including but not limited to the GJXDM Training and Technical Assistance Committee (GTTAC), the Global XML Structure Task Force (XSTF), and the IJIS Institute XML Advisory Committee.) In consulting with these groups, the subcommittee will seek to incorporate or reference, as appropriate, any existing or emerging workproduct that they may have.

The subcommittee is to conduct all business using OASIS facilities. In particular, all substantive email discussions concerning subcommittee business shall take place on an OASIS-established mailing list. All intermediate workproduct shall be posted to the documents area of the TC website (or a sub-area established for the subcommittee.) Minutes of any conference calls or face-to-face meetings of the subcommittee shall be posted in a timely fashion to the TC mailing list and the documents area of the TC website (or a sub-area established for the subcommittee.)

## **Deliverables and completion dates**

The subcommittee will complete a draft of the MNDR document by March 31, 2005. This date is established to provide for adequate review and comment prior to the full TC face-to-face meeting in New Orleans at the end of April, 2005.

Completion dates for intermediate deliverables (i.e., document subsections) will be announced to the TC after the subcommittee has been chartered and has had a chance to meet.

## **Users of the work**

The subcommittee's work will be provided to the full Integrated Justice Technical Committee for review, comment, and further action (e.g., establishing the document as a committee draft and OASIS standard) as determined by the TC.

**Chair**

Scott Came will serve as chairperson of the subcommittee.

**Language in which the subcommittee will conduct business**

The subcommittee will conduct its business in English.

## **Appendix: Exchange Document Methodology, Naming, and Design Rules (MNDR) Outline**

Note: this outline is a preliminary draft, to be refined by the subcommittee during the course of its work

### **I. Introduction**

- a. Audience
- b. Scope/Purpose
- c. Terminology and Notation
- c. Principles
  1. Reuse versus Reinvent Standards (feasibility of UBL NDR principles incorporation into GJXDM methods & standards)
  2. Consistency with IJTC charter

### **II. Exchange Document Overview**

- a. Definitions
- b. Types of “Reference” Documents Defined and their applicability for different organizations
  1. Exchange Documents as samples / project starting points
  2. Exchange Documents as jurisdictional standards
  3. Exchange Documents as national standards
  4. Exchange Documents, Reference Documents
- c. Document Package Mandatory and Optional Components (artifacts)[ref: Mike Hulme, XSTF additions]

### **III. Document Development Process Guidance**

- a. Normative or non-normative (do we want to propose a standard process)?
- b. Scott Came Project Methodology paper
- c. Workgroup structure
- d. Project approach

### **IV. STEP 1 – Domain Model Naming and Design Rules**

- a. General Domain Model Rules
  1. Reuse GJXDM concepts
  2. Reuse industry standard notation (E/R notations, UML Class Diagram notations)  
(Ref: Industry sources on Domain modeling like Eric Evans “Domain Driven Design)
- b. High-level structure view (Diagram, Table, UML, PowerPoint, Text Description and List...)
- c. Detailed structure view
  1. Applicable GJXDM (classes/elements)
  2. Standardize UML diagram notations (classes/elements)

3. Automated Tools (e.g., Argo UML)

## **V. STEP 2 – Domain Model - GJXDM Mapping Rules**

- a. Spreadsheet Content Requirements & annotation standards (Nancy Rutter's draft spreadsheet, UBL spreadsheet standards)
- b. Separate requirements from spreadsheet implementation
- c. Rules for conformant mapping
  1. Don't invent extensions where a GJXDM type or element fits
  2. Don't map to GJXDM types or elements where their definition doesn't fit the workgroup's definition
- d. Mapping scenarios (non-normative)
  1. List scenarios encountered requiring extension and methods for extending GJXDM
  2. Incorporate IJIS guidelines regarding "type substitution"
- e. Automated Tools (Argo UML to Schema, UBL Spreadsheet to Schema, Wayfarer, GJXDM Model Viewer, ....)

## **VI. Schema Set Naming and Design Rules**

- a. Sources
  1. John Ruegg paper
  2. UBL Schema Customization guidelines
  3. UBL NDRs
  4. OJP/GTRI websites
- b. Schema types and definitions
- c. General schema set naming and design rules
  1. Packaging of schemas
  2. Schema locations
  3. Import versus include
  4. Namespaces
  5. Controlling refinement (abstract, final)
  6. Controlling substitution (block)
  7. Character encoding
  8. Schema file structure
  9. Schema Documentation and Annotations
  10. Schema set members, names, and purposes
  11. Package (i.e., zip) naming rules
- d. Subset schema naming and design rules
  1. Rules for conformant subset schemas
  2. Design guidelines (e.g., use SSGT)
- e. Constraint schema naming and design rules
  1. Rules for conformant constraint schemas
  2. Design guidelines (e.g., stylesheet)
- f. Extension schema naming and design rules
  1. This will be the lengthiest section
  2. Extension patterns (solutions in context)
    - aa. Schema type refinement versus instance type substitution

- bb. Substitution groups, redefines
- 3. Other schema constructs
  - aa. Empty content, nil
  - bb. xsd:any
  - cc. xsd:choice, xsd:all
- g. Document schema naming and design rules
  - Rules for representing relationships
    - 1. Based on patterns (solutions in context)
    - 2. Inclusion of referenced content
    - 3. Strongly-typed relationships
    - 4. Weakly-typed relationships
- h. Tools for Schema Development
  - 4. GJXDM Subset Schema Generator, Scott Came XSLT for adding constraints to GJXDM schemas, UBL spreadsheet to schema generation, Dave Carlson Schema to UML diagram, UBL Schema to “Implementation diagram”, ...)

## **VII. Instance Naming and Design Rules**

- a. Root element
- b. Schema validation, schema location
- c. Character encoding
- d. Empty content
- e. Evaluate UBL Instance Document Specification

## **VIII. Guidelines for Customization in Exchange Documents**

- a. Context and Reusability of GJXDM Components
  - 1. Introduce concept of “context”
  - 2. Review ebXML Context and Assembly Technical Reports (Rules and reasons for when to extend or not to extend)
- b. Context Drivers for Integrated Justice
  - 1. Name the drivers
  - 2. Context annotation vocabulary (XML/Schema)
- c. Horizontal analysis guidance (non-normative)