Tools Topic: "Architecture" for HL7 Support tools

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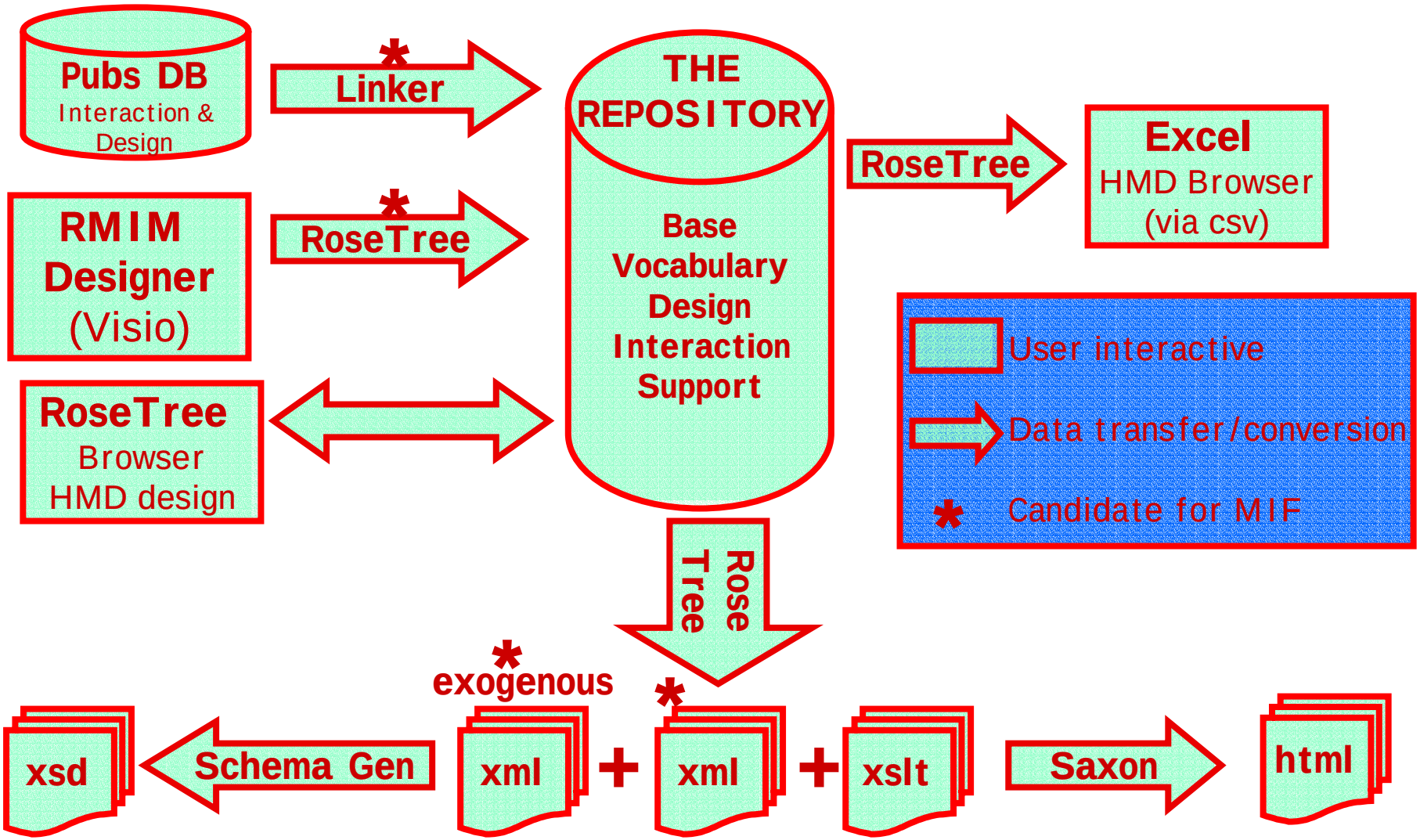
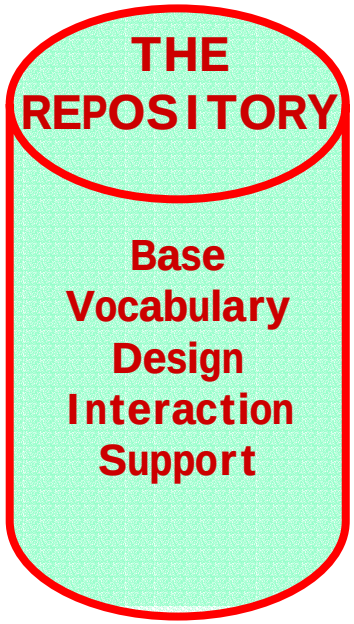
Tools architecture



Repository contents



- Base
  - RIM – normative content
  - Data types representation (inform)
- Vocabulary
  - Domain definitions
- Design
  - Tables to hold RMIM, HMD, Message types
- Interaction
  - Tables for interactions, trigger events, application roles, story boards -- ballot content
- Support
  - Reference tables for tools
  - Additional ballot content
- Documented in RepositoryContent.htm

Model Interchange Format (MIF)

- Set of schemas to validate and represent any and all HL7 version 3 artifacts.
- Intended uses:
  - Format for exchange between HL7 version 3 tools, including:
    - RoseTree
    - HL7 Visio templates
    - publications tooling
    - Publications Database
  - Format for import and export of all repository data
  - Format for registration of affiliate ballot content
  - Format for submission of HL7 v3 proposals
  - Format for documenting and registering application conformance profiles.
- Current version packaged in MIF.zip

Model Interchange Format (MIF) 2

- Schemas use embedded schematron rules. to test conditions that cannot be tested in w3c schema.
- Functionality divided across multiple schema files to allow the validation of different 'levels' of HL7 artifacts:
  - **internalMarkup.xsd**: Defines markup for use in all mixed text elements.
  - **artifactBase.xsd**: Defines foundation types used by other schemas
  - **datatype.xsd**: Validates datatype definitions
  - **staticModelBase.xsd**: Foundation for static model (RIM, D-MIM, R-MIM, HMD, MsgType, etc) information
  - **staticModelFlat.xsd**: Validates static model definitions in their non-hierarchical representation
  - **staticModelSerialized.xsd**: Validates static model definitions in their hierarchical (HMD) representation
  - **artifactPackage.xsd**: Defines dynamic models, glossary, etc. as a package
  - **conformanceProfile.xsd**: Validates application conformance profiles

Tool suite

- Publication data base (PubDB)
  - Custom data capture DB for documentation of interaction design
- RMIM Designer
  - Custom programming in Visio to speed development, documentation and validation of message designs, constrained by HL7 Methodology, RIM, data types and vocabulary
- RoseTree – application to
  - Browse and review repository content
  - Generate ("walk the graph") an HMD
  - Capture message type design constraints and annotations
  - Validate entered response
  - "Export"
    - RIM, Vocabulary, RMIMs, HMDs in XML and HMDs in csv formats
- Schema generator
  - XSLT set and "transform engine" to generate schemas from XML export
- XSLT stylesheets to "publish" and document all designs

Topic: Requirements

- PC Hardware/ OS (no MAC support) –
  - 1GHz cpu - 128 Mbytes RAM (min)
  - Win 2000 or WinXP strongly recommended
- Supporting software (available for download)
  - MSXML4 - Sun Java JRE
  - Saxon (for XSLT) - Text editor
- "Commercial" software (products shown or their successors)
  - Access 2000 (Req) - Visio 2000 (Req)
  - Excel 200 (Recc) - XML Spy (Recc)
- HL7-distributed (primary)
  - Design repository with RIM and Vocabulary as content