Evaluation Report
OMG OA&DTF RFP3
Stream-based Model Interchange Format (SMIF)

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for OMG Meeting, Burlingame, CA

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Current Status

- There is now one combined SMIF submission.

- Three distinct proposals (XMI, UOL, CDIF) have been combined.

- Evaluation has focused on the combined submission.

Current Status, cont'd

- Comments on XMI's initial submission resulted in refinements to XMI
- UOL's comments: stream differencing
- CDIF's comments: unique identifiers
- Final unified submission incorporates work from UOL and CDIF, and is titled "XMI"

Current Status, cont'd

- Final submission also reflects new detail from implementation of DTD generation, replacing interim hand-encoding

- Communications on XMI final submission (re typos, questions, clarifications) are being collected at xmi@omg.org

- SMIF eval comments being collected at smif-eval@omg.org, until November 13

Status as of 15 Sept 98 (Seattle OMG Mtg)

- 3 submissions (CDIF, UOL, XMI)
- UOL project will collaborate with XMI, to address particularly:
  - how to transmit differences as opposed to complete text of updated metaobjects
- CDIF project's concerns with XMI:
  - how to meet unique identifier requirement for versioning and control
  - how to bridge between CDIF and XMI

Status as of 15 Sept 98

- XMI Project's submission revision additional concerns:

  – Best way to specify objects in various contexts? (names vs. ids, optional id attributes)

  – Where to put what? (ordering, references)

  – What to call tags? (naming, multiplicities)

  – Generation rather than manual encoding of DTDs

Evaluation status as reported on 16 Sept 98

- Recommend considering 2 additional dimensions as optional requirements:
  - ability to bridge non-MOF metamodels, esp. Microsoft Open Information Model
  - ability of interchange language to serve as a originating model entry script in addition to an interchange conduit, and to be extended to support simple metaobject retrieval commands

Status as of 20 October 1998

- Single enlarged submission of XMI, incorporating principal concerns of UOL (compaction of streams, encoding of differences as XML documents) and CDIF (robust ids--UUIDs)

- Optional requirement candidate (non-MOF M3 interoperability) addressed in final XMI submission

Status (20 Oct 1998), cont'd

- Optional requirement candidate (metaobject retrieval commands) are being addressed under the theme of "XML query language facilities" by W3C, meeting in Dec 98

Status as of 8 November 1998

- DTD generation has been demonstrated in XMI prototype, removing interim need for hand-encoding
- Advantages of XMI are compelling: completeness for metadefinition, ease of serialization, readability, Web integration, internationalization, extra-MOF interoperability

Status (8 Nov 1998), cont'd

- XMI harnesses XML's nearly ideal metadefinition notation (tags required on atomic content and DTD's optionally defined over tagged content)

- Concept has been sufficiently proven by XMI's DTD generation and hand-encoded XMI efforts

Conclusion

- XMI specification as SMIF solution is solid:
  - Implementability shown by DTD generation
  - Completeness shown by success in hand-encoding of local product-related metamodels and models by various Submitting and Supporting groups
  - XMI team is working through a bug list
  - XMI endorsed by UOL, CDIF
- XMI submission is ready for a vote in the following meeting.