Criteria for creation and use of Canonical XMI

If the decision is made to switch to a canonical XMI it will not occur until after June 2018.

Criteria

* XMI must have sufficient content to support the production of multiple bindings (ala current production flow)
  + Including documentation and images
* Capability of automatic production of binding from XMI
  + Can you produce comparable bindings that reflect the model directly from UML (via XMI) in different tools (DS’s point)
* People can look at the DDI model in other tools (one-way trip)
  + Output from different tools (GD’s point) -- IS THIS A REQUIREMENT/WISH?
    - People want to use the xmi and import in own UML tools. If they extend the model you have no guarantee that it can be reimported into the production line to generate bindings
    - Is there a requirement that they can make something useful out of it particularly in the DDI production pipeline?
    - Would the outputs be interoperable with output from different tools
    - Briefly is the criteria a one-way trip from DDI to external tool or a round-trip? NO ROUNDTRIP!
* Validation of the model in UML tools
  + Specifically validation of the model in OMG/NIST validator
    - Can this be done in the production framework
      * The NIST tool is a free server application which could be used in a Windows environment
* Connect the model to other models (interoperability)
  + Allow someone to look at multiple UML models in conjunction with each other
* XMI must be standards compliant (UML, XMI)
  + UML and XMI are published standards from OMG
* Using standard UML ways for defining functional views
  + currently realized by using the EA extensions for diagrams
  + A view just makes a reference to an existing class

Risks

* Cost of moving XSLT transforms to a new source XMI
* Cost to change the exporter from modeling tool
* Different visual rendering of model in different packages
  + Can be addressed by improving the model by expanding text expressions of the relationships rather than depending on the visual rendering
* Is the workload higher to update versions of canonical XMI or versioning of one product e.g. sticking with EA
  + Current XMI is a EA flavour which doesn’t seem to reflect the current version of EA. If bound to a vendor format, it should be possible to import the XMI without errors and warnings into the current version of EA

Issues

* Functional views are currently realized by using EA extensions for diagrams
* Use of collection patterns could be non visible in the XMI and UML tools. Does only the documentation help in this or is a way in the UML model and the XMI to describe this?

Tasks (time, costs)

* Drupal export of revised XMI
* Change in transformation scripts for generating PSM and bindings
* Testing to verify we are getting the same end results
* EA extension content - how is it used and what does the loss or reexpression of this information in canonical XMI affect overall production (including documentation creation)