The Printer Working Group

Semantic Model Workgroup

Wednesday, Feb 10, 2016

Sunnyvale, CA

Daniel Manchala (Xerox)

Introduction

- The current Semantic Model workgroup is the latest in a series of PWG workgroups documenting and maintaining the Hard Copy Imaging System model.

- This model defines the semantic elements that constitute the imaging services and subunits of a network connected Imaging System, and the actions that operate on the objects and elements of the model, independent of a specific protocol or network environment.

- By the current workgroup charter, the primary function of the workgroup is to keep the model updated with additions and changes developed by other PWG workgroups, to make the model documentation accessible without the need for special software, and to provided for the review and approval of model updates by the PWG membership.

Officers and Editors

- Chair:
  - Daniel Manchala (Xerox)
- Vice-Chair:
  - Paul Tykodi (TCS)
- Secretary:
  - Bill Wagner (TIC)
- Document Editors:
  - Daniel Manchala (Xerox) – SM3 Schema
  - Ira McDonald (High North) – JDFMAP (awaiting prototype)
  - Rick Yardumian (Canon) – JDFMAP (awaiting prototype)

SM Meeting Agenda

When	What
10:30-10:45	Administrivia, Introduction and Status.
10:45-11:15	Proposed Process for Maintaining and Approving the Model.
11:15-11:45	Co-ordination of SM with other workgroups.
11:45-12:00	Next Steps.

Semantic Model Status

- The latest Semantic Model Version is PWG_SM_3.0_v2.905.
  - In addition to correcting errors and XML-related problems, this version reflects the security changes suggested by the PWG IDS group and initially added by Joe Murdock.
  - This version does not reflect features introduced by the Cloud Model workgroup, or recent IPP workgroup changes.
- Version 2.905 is accessible as WSDL and Liquid XML project files at: http://ftp.pwg.org/pub/pwg/sm3/schemas/PWG_SM_3.0_v2.905.zip
- The browseable version of the model cane be accessed at: http://www.pwg.org/sm/schemas/Rev2.905/system.html
- Older versions including v2.904, 2.903, 1.185 are accessible at http://ftp.pwg.org/pub/pwg/sm3/schemas/.
- *Comment: Maintenance of the model is a continuing and time-consuming effort for the editor, but also demands effort from the workgroup to be aware of and evaluate changes in Imaging that should be reflected in the model.*

- **Mapping CIP4 JDF to PWG Print Job Ticket v1.0 (JDFMAP)**
  - Description: define a normative mapping from XML objects and attributes in the CIP4 Job Definition Format [CIP4JDF] to XML elements in the PWG Print Job Ticket and Associated Capabilities [PWG5108.7]
  - Status: The editors believe that they have a technically complete Prototype draft of JDFMAP.
  - This work was done within the SM WG with significant contributions from Rainer Prosi of CIP4. Presently, the workgroup is trying to solicit a set of JDF few CIP4 Job Ticket examples from Rainer Prosi. When these examples are received, select PWG members will be approached and asked to prototype the mapping of these limited examples.

Review of Conference Call Minutes

- **Minutes Since Last Face-to-face**
  - **ftp://ftp.pwg.org/pub/pwg/sm3/minutes/SMWG-sm3-Minutes-20151130.pdf**
  - **ftp://ftp.pwg.org/pub/pwg/sm3/minutes/SMWG-concall-minutes-20160125.pdf**
- **Action Items**
- Ira to follow up with Rainer Prosi (Heidelberg, CIP4 CTO) with respect to his providing a set of JDF examples to be used to prototype the JDF mapping specification
- Paul to contact PWG members possibly interested in doing the prototype once these examples are available and the prototype task can be scoped.
- The Semantic Model Workgroup and other interested parties are to review the ideas and conclusions with respect to the process outlined in these minutes, and comment on them or offer alternative approaches via the SM3 mail list.
- The workgroup is to determine whether the current Liquid XML tool can provide an adequate browse-able version of the model with reasonable effort. Done, it can.
- Ideas and approaches will be reviewed at the next Semantic Model conference call to select the points for the Semantic Model Maintenance and Approval Process draft.

Proposed Process for Maintaining and Approving the Model

- PWG Policy for Maintenance and Approval of Schemata
  - Draft at: ftp://ftp.pwg.org/pub/pwg/sm3/wd/wd-sm3-policy-schemata-20160125.docx
  - Review
- Questions:
  - Should there be a general PWG process for Schemata and a separate SM Workgroup-specific process for maintenance of the Semantic Model?
  - Are the provisions for update, storage, approval, and accessibility in the draft appropriate to the Semantic Model schema?
    - What is the definitive form (HTML or code)?
    - Where is the definitive form stored?
  - How is WSDL to be displayed in a comprehensible form?
  - What is the best way to make updates and changes to the model readily apparent, allowing comment and review without requiring going through the entire model?
  - Is the Model of sufficient importance to the membership to justify the potential cost of technical assistance?

Co-ordination of SM with other workgroups

- SM Workgroup is to incorporate features developed by other PWG workgroups (IPP) into the model.
  - Should the workgroup strive to reflect, as best it can, these features, ranging from additional values for leaf elements to the addition of new first and second level elements, after those developments have been appropriately approved; or
  - Should the semantic model workgroup participate in the development and evaluation of these features, particularly considering how they would be reflected in the model and how consistent they are with the existing model?
  - Is the SM workgroup to monitor other workgroups' activity and decide if and how new features are reflected; or
  - Is it to be part of the development process of any PWG workgroup to interface with the SM workgroup and work with the SM workgroup to ensure that the developed item is properly incorporated into the model?

What should be Incorporated into SM3?

- Should the PWG Semantic Model SM3 be changed to reflect changes previously agreed to?
  - Elimination of EmailIn and EmailOut services?
  - Elimination of FaxIn Services
  - Change of System Control Service to System Service
  - Elimination of Resource Service and incorporation of Resource Service elements into New System Service
- Should Cloud Imaging Model be incorporated into SM3?
  - In cases where the IPP Infra and Cloud Imaging Model differ, which should be reflected in the SM3 model?
- Should IPP 3D Printing work be in SM3?
  - Should it be in an SM4?
  - Should a 3D Printing System be maintained as a model separate from the existing MFD model?

More Info/How to participate

➢ **We welcome more participation from member companies**

➢ **Much of the discussion of issues will be on the SM3 mail list. You must subscribe to the list to be able to post to the list. See http://www.pwg.org/mailman/listinfo/sm3 to subscribe.**

➢ **The group maintains a Web Page for Semantic Model that includes links to the latest documents, schema and a browse-able version of the schema at http://www.pwg.org/sm3**

➢ **Next conference call: February 22, 2016; 12:00 – 1:00 Pacific Time / 3:00 – 4:00 PM Eastern Time.**

Call-in toll-free number (US/Canada): 1-866-469-3239

Call-in toll number (US/Canada): 1-650-429-3300

Call-in toll number (US/Canada): 1-408-856-9570

https://ieee-isto.webex.com/ieee-isto

Appendix

Past Specifications

Approved Documents

Print Service: *Approved January 2004*

- PWG5105.1:
  PWG Semantic Model Specification Version 1.00

- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm10-20040120-5105.1.pdf

Scan Service: *Approved April 2009*

- PWG5108.02-2009:
  Network Scan Service Semantic Model and Service Interface Version 1.0

- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-scan10-20090410-5108.02.pdf

Resource Service: *Approved July 2009*

- PWG5108.03-2009:
  Network Resource Service Semantic Model and Service Interface Version 1.0

- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-resource10-20090703-5108.03.pdf

Approved Documents

MFD Common Semantics: *Approved April 2011*

- PWG5108.01-2011:
  MFD Model and Common Semantics Version 1.00
- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-mfdmodel10-20110415-5108.1.pdf

Copy Service: *Approved June 2011*

- PWG5108.04-2011:
  Copy Service Semantic Model and Service Interface Version 1.00
- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-copy10-20110610-5108.04.pdf

MFD Requirements: *Approved September 2010*

- Multifunction Device Service Model Requirements
- ftp://ftp.pwg.org/pub/pwg/informational/req-mfdreq10-20100901.pdf

FaxOut Service : *Approved August 2011*

- PWG 5108.05-2011:
  FaxOut Service Semantic Model and Service Interface Version 1.0
- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-faxout10-20110809-5108.05.pdf

System Control Service: *Approved February 2012*

- PWG 5108.06-2011:
  System Object and System Control Service Semantics Version 1.0
- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-system10-20120217-5108.06.pdf

Print Job Ticket: *Approved August 2012*

- PWG 5108.07-2012:
  PWG Print Job Ticket and Associated Capabilities Version 1.0
- ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-pjt10-20120813-5108.07.pdf