



PWG-CIM Realignment Project

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What's the Project?

- Bring the DMTF model of a printer into alignment with the current PWG Semantic Model.
 - DMTF model was codified in mid-1990s, around the time of Printer MIB v1
 - Some evolution since then
 - Some expansion into other printing-related areas

DMTF Work Register for This Project

- "Work register" (= project description) initiated in January 2005
 - Familiarize WGs with CIM and PWG models
 - Review models, evaluate content to incorporate into CIM
 - Make formal change requests
- Announced on the front page of dmtf.org
- CIM model includes Printer, Print Service (and Service Access Point), Print Queue, and Print Job
 - Semantic model covers only Printer, Job, Document
 - Intersection = Printer + Job
 - SM and IPP job semantics may also have some implications for semantics of CIM Print Service (guess)

Steps and Schedule

Form working group	Feb
Educate, evaluate content	March - April
Map models	April - June
Draft & review revisions	June - Aug
Last call	mid Aug
Approve	end Aug

- Started late, clearly need to revise

Deliverable Items

- DMTF Change Requests (CRs) to revise CIM v2.x specification
- DMTF CR is a formal document
 - Description
 - Rationale
 - Requested changes
 - Replace <moldy, old text> with <fresh, new text>
 - Text is in MOF (Managed Object Format) (more later)
 - Discussion points
 - Ballot feedback
 - All ballot comments, with resolutions
 - Submitted in HTML format
- Must be approved by DMTF Technical Committee (TC)

Example of MOF

- PrinterStatus property from CIM_Printer class
- [Description (
 "Status information for a Printer, beyond that specified in "
 "the LogicalDevice Availability property. Values include "
 "\Idle\" (3) and an indication that the Device is currently "
 "printing (4)."),
 ValueMap { "1", "2", "3", "4", "5", "6", "7" },
 Values { "Other", "Unknown", "Idle", "Printing", "Warmup",
 "Stopped Printing", "Offline" },
 MappingStrings { "MIB.IETF|Printer-MIB.hrPrinterStatus" }]
uint16 PrinterStatus;
- Hard to read, hard to edit
- We really don't want to use this format while drafting and discussing the proposed changes

Process Proposal

- Use a format for drafting, editing, discussion that is easier to read and edit
- When done, translate that format into MOF
- Requirements for format:
 - Formal syntax, unambiguous, with a specified grammar
 - Machine-readable, translatable to other formats, esp. MOF and ASN.1
 - I volunteer to write a translator
 - No nuisance punctuation as in MOF: quotes, brackets
 - Less order-dependency than MOF, or at least better order
 - Easier to edit: syntax helpers in editors, color highlighting
 - E.g., XML, with a schema we generate and agree on

Questions?