Standard Registry Development and Publication Process

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Foreword

The *Standard Registry Development and Publication Process* (DSP4006) was prepared by the DMTF WBEM Infrastructure and Protocols (WIP) Working Group.

DMTF is a not-for-profit association of industry members dedicated to promoting enterprise and systems management and interoperability.

Standard Registry Development and Publication Process

1 Scope

This document defines the process for creating and publishing standard registry documents. Appropriate management of these registry documents ensures that the targeted subject matter is designed once and the evolution of the documents is controlled. This document does not discuss the details of how a client application shall use or process the registries.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

2.1 Approved References

DMTF DSP4004, *DMTF Release Process*, Version 1.3, July 25, 2005

DMTF DSP4009, *DMTF Process for Publishing XML Schema, XML Documents, and XSLT Stylesheets*, Version 1.0.0a, Sept 14, 2007

2.2 References under Development

None

3 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1
standard identifier

An expression or record of a particular object, attribute, or thing that has been defined and agreed on by the DMTF and other industry standard governing organizations

3.2
registry

A published collection of identifiers or expressions

3.3
Uniform Resource Identifier
URI

An address for a resource available on the Internet

4   Symbols and Abbreviated Terms

The following symbols and abbreviations are used in this document.

4.4
CIM

Common Information Model

4.5
WBEM

Web Based Enterprise Management

4.6
WIP

WBEM Infrastructure and Protocols

4.7
URI

Uniform Resource Identifier

4.8
XSD

XML schema definition

4.9
XSL

extensible stylesheet language

5   Introduction

This document outlines the process required to develop and publish registries. The registries shall be developed according to a defined XML schema and may use some XSL transformation files developed to transform the XML registries into HTML readable and printable files. This clause provides a detailed description of each type of file. The latest preliminary and final versions of these documents can be found on the external website described in 6.3.2.2.

5.1   Standard Registry

A registry is an XML file that contains one or more standardized identifiers. The registry defines the format and semantics of the contents of some of the properties available in CIM classes. The registry does not define new classes or new class properties, nor does it change the semantics of existing classes or properties.

The Common Information Model (CIM) defines standard properties and their meaning. A registry extends this definition by narrowly defining specific content of properties per a standard identifier. Some properties are defined to be dynamic content and sometimes an array of dynamic elements. A registry provides a format to define the dynamic content.

A registry includes both static and dynamic content. The expectation is that a provider will output the content that is used to identify the source, static content that conveys the same meaning described in the registry, and dynamic content in the order specified in the registry. The static text can be anything the provider chooses as long as the meaning is the same as the static content in the registry.

It is recommended that a registry be created in a single source language. For this reason, the DMTF publishes registries in English only. It is not recommended that the dynamic elements contain translatable text because it would make localization of the registry difficult.

5.2   XML Schema Specification

The registry XML schema definition (XSD) file is a specification document that formally describes the elements in the XML registry file. This specification can be used to verify that each item of content in the XML registry adheres to the description of the element in which the content is to be placed. Along with the XSD file, the standard registry XML schema definition is available in HTML format, viewable by an Internet browser.

5.3   XSL Files

The registry extensible stylesheet language (XSL) files define the presentation of the XML registries. These files should be used to transform the registries into readable and viewable formats. If a new XSL file is developed, it is recommended that the developer of the XSL file contribute the file to the WBEM Infrastructure and Protocols (WIP) Working Group because the XSL file should be usable by any registry that adheres to the registry schema specification.

5.4   Versioning Scheme

The registries, the registry schema specification and definition, and XSL files shall use the DMTF Release Process version numbering scheme. Each document will have its own individual version; this includes the registries, schema, and XSL files.

The definition of each revision level is outlined below. These definitions apply to each of the standard registry documents.

Major Release

A major release is a change that does not maintain backwards compatibility. For example, a major release of all of the registry documents would be required if the registry schema deprecates an element or new required elements are added to the registry schema.

Minor Release

A minor release is required when changes occur that maintain backwards compatibility but are more significant than a spelling or grammatical update. For example, new optional elements are added to the registry schema, or new standard messages are added to an existing message registry, an update to the message registry to support a new version of the CIM Schema, or a change in the html format generated by the XSL file. Note that an addition of an element to the registry schema does not require a new release of the registries unless the registry will take advantage of the new element.

Update Release

An update release is used to correct spelling, grammatical, or syntax issues. An example would be a change to the description of a message in the Platform Message Registry, DSP8007.

6   Process

Several steps are involved in the development and publication of standard registries. This clause outlines the steps in detail.

6.1   General

The responsibility for each registry developed in the DMTF belongs to the working group that owns the specification for which the registry is created. The working group that owns the specification for which the registry is created and the WIP Working Group is jointly responsible for the standard registry schema specification and definition, the XSL files, and any common registries that may span multiple specifications. A common registry eliminates the need for the developers of registries to duplicate the indicators used across specifications in every specification's individual registry.

Each working group owns the execution of the *Standard Registry Development and Publication Process* to develop the standard registries. The working group chair may delegate any of the steps involved in the process to an alternative working group or working subgroup, but the working group retains the responsibility.

6.2   Registry Development Process

The development process is divided into two procedures:

- Create a new standard registry.
- Update an existing standard registry.

6.2.1   Create a New Standard Registry

This subclause provides the steps for creating a new standard registry.

6.2.1.1   STEP 1: Get the Latest Version of the Registry Template, Schema, and XSL Files

The latest preliminary and final versions of the registry schema definition and XSL files can be found on the external website described in 6.3.2.2. Use these versions when developing a new registry.

A registry template that can be used as a guide to develop a registry can be found on the DMTF Technical Committee's website: http://www.dmtf.org/apps/org/workgroup/technical/documents.php.

6.2.1.2   STEP 2: Obtain a DMTF Specification Number for the Registry

Follow the standard *DMTF Release Process* (DSP4004) to obtain a DMTF specification number (DSP).

6.2.1.3   STEP 3: Determine the File Name for the Registry

Per clause 4 of DSP4009, the XML instance document (that is, the XML file) shall be a DSP numbered document. An example is the *DMTF WBEM Operations Message Registry* (DSP8016).

The release of XML instance documents with a static XML schema shall follow the process for DMTF standards defined in the *DMTF Release Process* (DSP4004), using a file extension of **.xml** (for example, DSP8016.xml).

6.2.1.4   STEP 4: Create the Standard Registry

To create the registry, follow these steps:

1) Obtain the latest XML template to use as a guide.

2) Ensure that the registry contains the comment section that includes the standard Notice found in all DMTF externally published documents.

The Notice section includes the document DSP number, name and description, version, authors, date of last update, status, and the DMTF copyright information. The comment section also contains a description of the document and a list of change requests.

3) Ensure that the registry adheres to the appropriate registry XML schema specification and refers to this schema in each of the XML registry file's namespace and schema location URI declarations.

4) Because registries are organized by specifications, ensure that the XML registry file contains only standard identifiers that apply to the specification documents referenced in the registry. For example, if the registry references only the *Fan Profile*, it will have only the identifiers required by the *Fan Profile*.

6.2.1.5   STEP 5: Obtain or Provide the Unique Identifiers

All registry XML schema specifications define an XML element that is a unique identifier for each identifier in the registry. For example, the *Platform Message Registry* (DSP0228) schema defines MESSAGE_ID as the unique identifier. Unique identifiers consist of a prefix and the identifier attribute that shall be used as a unique identifier among all registries owned by a particular owning entity. The value of the prefix shall be a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the identifier or is a registered ID that is assigned to the entity by a recognized global authority. For DMTF defined identifiers the prefix is assigned by the owning working group. The identifier attribute shall be defined by the Registry Schema specification. For example, DSP0228 defines the identifier attribute as SEQUENCE_NUMBER.

 To avoid duplicate identifiers, the chair of the working group that owns the registry governs all identifiers.

The author of the registry should send an e-mail request to the working group chair to request sequence numbers to use as identifiers or to request permission to use identifiers previously defined by the working group or by a non-DMTF owning entity.

6.2.1.6   STEP 6: Document the Required Identifiers in the Specification for which the Registry Was Created

To require an implementer of a specification to use the standard identifiers defined for that specification, the required identifiers must be documented in that specification. Identify the registry by documenting the respective DSP number in the specification. For each required identifier, the following attributes should be specified:

- the prefix, as defined by the registry schema specification
- the identifier

A developer does not have to document an identifier in every specification that requires use of the identifier if the specification refers to another specification that owns the identifier.

6.2.2   Update a Standard Registry

1) To update a registry, obtain the latest version of the registry.

The latest preliminary and final versions of the registry, registry schema, and XSL files can be found on the external website described in 6.3.2.2.

2) Clearly delineate proposed changes in the updated version of the registry.

3) Proceed to the registration publication process described in 6.3, noting that only changes to the registry, not the entire registry, will be balloted (see 6.3.1.1).

6.3   Registry Publication Process

This subclause describes how the registries, the registry schema definition specification, and the XSL files will be made available outside of the DMTF for implementers of client applications and providers to access. Note that the registries published by the DMTF are in English only.

The publishing process encompasses the release process and the locations for published documents during the release phases.

6.3.1   Release Process

This subclause describes the steps in the release process.

6.3.1.1   STEP 1: Ballot the Registry According to the DMTF Release Process

Registries that are published as part of the standard messages effort follow the *DMTF Release Process* (DSP4004). The release process specifies four phases for the documents:

- Work In Progress
- Draft Standard
- Preliminary Standard
- Final Standard

For each phase, details that are specific to the development of the registries or that deviate from the *DMTF Release Process* are discussed in this clause.

In the DMTF, the responsibility for developing each registry belongs to the working group that owns the specification for which the registry is created. The WIP Working Group is responsible for the registry schema specification and definition and the XSL files.

6.3.1.1.1   Preliminary Standard

For the registry to reach the Preliminary Standard phase, it must contain one or more standard identifiers in the XML format described by the registry XML schema definition specification and adhere to the steps defined in 6.2.1. All standard messages documents must also contain a comment section that includes the standard DMTF Notice information. The format can be found in the latest registry template.

In this phase, working groups create the Change Request to make the document final or continue to move the document forward to the next preliminary release.

6.3.1.1.2   Final Standard

For a registry to reach the Final Standard phase, it should adhere to the requirements defined for the Preliminary Standard phase. Also, if the registry is dependent on a CIM schema, the CIM schema must also be in the Final Standard phase.

6.3.1.2   STEP 2: Publish the Registry to the DMTF Repository According to the Defined Organizational Structure

Several types of files must be published to maintain a standardized identifier. Subclause 6.3.2 describes the DMTF website location to which the documents will be published and how these documents will be packaged and organized both internally and externally based on the maturity level of the document.

6.3.2   Locations for Published Documents

This subclause describes how the registries will be published.

6.3.2.1   Internal Website — Documents under Development

While a registry is being developed in the DMTF and has not reached the preliminary or final phase of the release process, it should be posted only to the internal website of the working group that owns the registry.

6.3.2.2   External Website — Documents That Are Preliminary or Final

As required, the appropriate working group will have new directories created on the external DMTF website as defined by DSP4009. These directories will contain all of the documents that are required to implement and use the standard identifiers in the registries.

Annex A
(informative)

Change Log

Version	Date	Editor	Description
1.0.0 Work-In-Progress	2006/01/20	Linda Martinez	Reformatted for better readability.
1.0.0a	2006/03/01	Linda Martinez	Incorporated comments from first WIP ballot.
1.0.0b	2006/03/15	Linda Martinez	Updated to close on comments from first WIP ballot.
1.0.0c	2006/03/22	Linda Martinez	Updated based on discussion in WIP meeting on 2006/03/22.
1.0.0d	2006/03/23	Linda Martinez	Updated URI Format in Appendix and Document Repository and Organization sections.
1.0.0e	2006/04/07	Linda Martinez	Updated to close on comments from second ballot of WIPCR00273, 274, and 275.
1.0.0 Draft	2006/04/27	Linda Martinez	Updated to close on comments from third ballot of WIPCR00273, 274, and 275. Updated document status to Draft.
1.0.0f	2007/05/31	Joe Kozlowski	Updated to incorporate support for registry types other than Message.
1.0.0g	2007/10/03	Joe Kozlowski	Updated per WIP ballot comments. Removed annexes and cleaned up 6.1 and 6.2 to reflect DSP4009.
1.1.0	2007/10/16	Joe Kozlowski	Changed to 1.1 per TC decision.

Annex B
(informative)

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