



DMTF Release Process

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Abstract

This document defines the DMTF Process for all DMTF releases that are intended to become standards (known as DMTF Standard Documents). These DMTF Standard Documents include specifications, white papers, CIM schema (including LDAP mappings), XML definitions (DTDs and XML Schema), and other documents deemed by the Technical Committee and Board of Directors to be relevant to the DMTF standards mission.

Notice

DSP4004

Status: Informational

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1 DMTF Release Process

The phases in the release process of a DMTF Standard are:

1. Obtain a DSP number
2. Work in Progress
3. Preliminary Standard
4. Final Standard

Examples of DMTF Standards include profiles, SM CLP mapping specifications, standard message registries, and assorted WBEM specifications such as DSP0200 and DSP0201.

In addition to DMTF Standards, a Committee may release white papers, process documents or technical notes that provide supplemental content on the work produced by the Committee. These documents are released with a status of Informational.

As DMTF Standards progress through the DMTF Release Process, their status, as documented in the document, changes from Work-in-Progress, to Preliminary Standard, and finally to Final Standard. This process applies to all DMTF Standard Documents published after July 1, 2006.

Every DMTF Standard must have its date, status and version on the cover page, as well as the required DMTF copyright notice and disclaimers. See section 4.1 for versioning requirements. In addition, Work in Progress and Preliminary Standard documents must contain the expiration date on the cover page. Standards that are in the approval process for release as a Preliminary or Final Standard will append " - Pending" to the status to indicate that the document has not been approved by the appropriate level for the status change to take effect. Once the standard has achieved the proper level of approval, the "- Pending" is removed before the specification is released.

The CIM standard is specified in Management Object Format (MOF). A DMTF CIM Schema consists of MOF files, UML diagrams, white papers, and other supporting documentation (for example, supporting examples). The contents of the MOF files and the documentation are updated as they progress through the DMTF Release Process.

DMTF documents are developed collaboratively by Working Groups, then reviewed and approved through the organization. Acceptable formats for DMTF artifacts have been defined because the software used across member company organizations for document review and editing varies. Member companies do not have to purchase specific versions of software products to participate in the DMTF development or approval process. Items submitted to the DMTF must be in an acceptable format, as described in section 1.1. Items submitted to the DMTF after July 1, 2004 must use this format.

1.1 Accepted Formats

DMTF sources must be in one of the following formats:

- UTF8 text format for MOF

- Visio 2002 for UML
- HTML for Change Requests
- Other sources must be in Word 2000, HTML, UTF8, or Visio 2002 as appropriate.

Source files for DMTF documents which are made available outside of DMTF working groups must be stored in the DMTF CVS repository.

A Working Group must submit DMTF specifications in PDF format to the appropriate committee for approval. PDF is a common document publication format within the industry, and PDF readers are free and available on the Internet. DMTF specifications are released in PDF format. The Working Group may also include the source document of the specification in Word 2000 or HTML format. This format is useful when change tracking is enabled. Reviewers can add comments directly to the source file, if appropriate.

Working Groups may choose, by consensus and approval by the Working Group chair, to use a different source format during the development process. However, this source format must be converted to an acceptable format before it is released outside of the Working Group.

DMTF published artifacts must be in one of the following formats:

- UTF8 text format for MOF
- PDF for UML
- PDF for standards, white papers, and technical notes
- Supplemental information may be provided in HTML (for example, hyperlinked MOF documentation), UTF8 text (for example, XML MOF rendering), PDF, or Visio 2002, as appropriate.

Published artifacts may be provided in compressed (.zip) format for download convenience.

The filename for DMTF Specifications which are made available outside of a DMTF Working Group should follow the format:

"DSP"<4 digit document number><file extension>

Versioning information, release date, etc. are not conveyed by the filename. This information must be embedded inside the Specification itself. When specifying the document number for DMTF specifications numbered less than 1000, the leading zero must be specified. For example, "DSP0825.pdf" is correct, while "DSP825.pdf" is not.

1.2 Obtain DSP Number

The first step of the process is for the Working Group to obtain editorial responsibility of the specification. In the case of new works, this means acquiring a DSP number. In the case of prior works, this means acquiring editorial responsibility of the appropriate document, in whole or in part. For the Schema, this is decided according to Working

Group charter and the section of the MOF being modified and is done through the CR process described in Section 3. For Profiles, this must be done in accordance with the policies and procedures documented in DSP4005. For all other documents, this must be done in accordance with the policies and procedures documented in DSP4007.

1.3 Work in Progress

Proposals or rough drafts for additions or changes to any type of DMTF Standard Document, including updates, are made available to the originating Working Groups by posting this information to the Working Groups' Web page(s). Additions and changes to DMTF Standard Documents must be described using the standard DMTF Change Request format (as described in section 3). If the proposal is written in collaboration with another standards body, it may also be posted to the membership of that standards body, using the guidelines of that standards body.

A Working Group may vote to release a Work In Progress for review to one or more recipients, including the general DMTF membership, a sharing Working Group, Alliance Partners organizations, or the general public. All such documents must be within the Working Group's charter scope and be clearly marked as "Work In Progress" on every page. All such documents must contain a DSP number, all DMTF copyright notices and required disclaimers including a notice that they are subject to change and their expiration date. A DMTF Standard shared as a Work in Progress must have version numbering which identifies the target version for release as a Final Standard.

In order for a document to be released as a Work In Progress outside of the Working Group, and shared with one or more recipients, the Working Group must vote to approve the release. Once approved by the Working Group, the proposed Work In Progress document will proceed to the Technical Committee. The Technical Committee must approve all DMTF Work In Progress Documents before they are released to ensure that it is within the Working Group's chartered scope. The submission to the TC will follow the standard CR approval process. The accompanying CR must explicitly identify the intended recipients and the requested expiration date.

All Work In Progress documents approved by the Technical Committee must contain an expiration date which can be one to six months from the date of approval by the TC. After the expiration date has been reached, the Technical Committee is responsible for ensuring the document is no longer shared with the recipients. Prior to expiration of the document the originating WG may submit a CR requesting the expiration period to be extended. If a CR is submitted, the Technical Committee will review status and specification development activity, and decide whether to extend Work In Progress status. If no request is made, the default is for the document to be withdrawn upon expiration. The sharing of a Work In Progress, including extensions, must not exceed six months from the date of approval by the Technical Committee.

Note that any feedback from Alliance Partner organizations, the general public or company or individual who is not a member of the DMTF will only be accepted through the DMTF Feedback Portal to ensure that DMTF will have the copyright to the material and that the feedback will be in adherence to the DMTF Patent Policy.

After the Technical Committee has approved sharing a Work in Progress document, the owning Working Group may desire to have the document withdrawn prior to the agreed upon expiration date. The owning Working Group may submit a CR requesting to have the document withdrawn.

When the Working Group considers the Work in Progress ready to move to the Preliminary Standard phase, the proposals are released to the Technical Committee for approval.

1.4 DMTF Preliminary Standard

A Working Group may vote to release a Standard Document as Preliminary Standard for review to other DMTF Members not in the Working Group, a sharing Working Group, Alliance Partners organizations, or the general public. All such documents must be within the Working Group's charter scope and be clearly marked as "Preliminary Standard" on every page. All such documents must contain a DSP number, all DMTF copyright notices and required disclaimers including a notice that they are subject to change and an expiration date.

The Technical Committee must approve all DMTF Standard Documents or changes to DMTF Standard Documents before they are released as Preliminary Standards, in accordance with the Committee Voting Process. The DMTF Board must approve DMTF Preliminary Standards before they are released to the public in accordance with the DMTF Board Voting Rules.

Industry comment is invited during the Preliminary Standard phase. Companies are encouraged to use the Preliminary Standards that have been released for review. Comments, questions, and feedback on the Preliminary Standards will be addressed by the Technical Committee or by their designee. An individual can register and download CIM Schema (with the capability to bypass this registration). All registered individuals will be notified of any approved changes (occurring as feedback based upon the results of implementations) during this phase. Implementation feedback may generate Change Requests against the Preliminary Standard and go through the normal approval process (Work In Progress and Preliminary Standard). Approval of the DMTF Board is not required for these changes. However, the change will appear in a new version of the Preliminary Standard.

The Preliminary Standard phase should not be less than three months unless implementation experience justifies a shorter time period. (A schedule change would require an exception to the Release Process, and it would have to be approved by both the Technical Committee and the DMTF Board.) After the initial three months, the Technical Committee will review status and implementation activity, and decide whether to extend Preliminary Standard status on a monthly basis, for a maximum of three months for a total of six months. At the end of six months, the Technical Committee can recommend withdrawal of a Preliminary Standard, if there is no interest in implementation from the industry. To reach Final Standard, all outstanding Change Requests against the Preliminary Standard must be resolved.

In the case of CIM schemas, individual Working Groups create the Change Request to take the schema to the Final Standard phase or continue to move portions forward to the next Preliminary Standard release. At the discretion of the Working Group, parts of a schema may be removed.

For DMTF CIM Schema to reach the Final Standard status it must contain one or more Managed Object Format (MOF) files and UML diagrams that are provided in an acceptable format, as described in section 1.1. The MOF files must not contain any elements that are qualified as experimental. A white paper should also be released that includes a description of the circumstances under which the classes can be sub-classed, the expected usage of the classes, and at least two sample use cases. For a change to the CIM schema to be taken to the Final Standard phase, implementation experience from two independent implementations is required by a minimum of two companies that must be members of DMTF or an alliance partner. Implementation experience within an alliance partner organization may be substituted with approval of the Technical Committee if the CIM schema changes are representative of the model developed by the external organization. For example, if an IETF MIB is modeled in CIM, implementation experience for the MIB may be used to take the CIM changes to the Final Standard phase.

Implementation experience for the CIM schema includes using the server for experimental elements in prototypes, internal systems, or product development. Implementation experience does not have to be restricted to released products to be applicable. The goal is to validate that the new schema elements can be implemented and are complete.

1.5 DMTF Final Standard

A Working Group may vote to release a DMTF Standard Document as Final Standard for release to the general public. All such documents must be within the Working Group's charter scope and be clearly marked as "Final Standard" on every page. All such documents must contain a DSP number, all DMTF copyright notices and required disclaimers including a notice and must not contain an expiration date.

The Technical Committee must approve any DMTF Standard Document for release to the public as a Final Standard in accordance with the Committee Voting Rules. The DMTF Board must also approve the public release of all versions and releases of the DMTF Standards, in accordance with the DMTF Board Voting Rules.

Corrections to a Final Standard must be handled as ERRATA. Errata are released using the process that is defined in the DMTF errata process document.

1.6 Informational

Documents marked as Informational consist of presentations, white papers, process documents or any other non-DMTF Standard Document. DMTF Standards Documents must not be marked as Informational.

2 Review Phases

The length and posting of each phase varies as shown in the following table:

Phase	Length of Phase	Status	WEB Posting
Request for DSP	Indeterminate	N/A	N/A
Working Group	Indeterminate	Work in Progress	Working Group WEB Site
Optional - Published Work in Progress	Not more than six months (See Note.)	Work in Progress	DMTF Public Document Review Web Site
DMTF Preliminary Standard	Not less than three and not more than six months (See Note.)	Preliminary Standard	DMTF Public Web Site
DMTF Standard	Permanent	Final Standard	DMTF Public Web Site

Note: A schedule change requires an exception to the Release Process and must be approved by both the DMTF Technical Committee and the Board.

3 DMTF Change Request

DMTF Standard Documents are subject to change control. A member company or Alliance Partner organization may submit a Change Request to the appropriate Working Groups.

Only the responsible Working Group may submit approved Change Requests to the Technical Committee. A Change Request can begin in any Working Group, provided that Working Group has the charter. A Change Request for a Standard for which another Working Group has editorial responsibility must first be approved by that Working Group before it can proceed to the Technical Committee.

The description of the Change Request must include the following information by adhering to the following conventions:

(Specification impacted, version impacted, release state Final or Preliminary – if applicable) followed by a short description of the purpose of the Change Request and the model or models that are impacted by the change (if applicable).

Example: (CIM V2.8 Final) –Change Request to move classes from experimental to Final in the Core Model.

After the Change Request has been uploaded to the Technical Committee site, an e-mail message that introduces the Change Request should be sent to the Technical Committee chair and Technical Committee Secretary. Change Requests may also be introduced for ballot during the new Change Request introduction section of the weekly Technical Committee meeting.

Change Requests that are received by end of business on Wednesday will be balloted for the Technical Committee meeting on the following Tuesday. This schedule ensures that Technical Committee members have sufficient time to review the Change Requests internally. With sufficient justification, Change Requests received after the Wednesday deadline may be balloted at the discretion of the Technical Committee chair or the chair's designee. If Change Requests are balloted after the Wednesday deadline, an e-mail message must be sent to the Technical Committee members to notify them that additional ballots have been created.

A Change Request must clearly state the old and the proposed new text. Changes must address a single issue. Multiple issues must not be submitted in the same Change Request. However, if the same issue applies to multiple items or schema classes, it can be submitted as a single Change Request. Change Requests must include the version and release they are written against and the version and release to which they apply.

Changes that apply to multiple specifications must be submitted as separate Change Requests.

3.1 Withdrawing Change Requests

In certain circumstances, it may be necessary to withdraw a change request. If a Change Request fails a ballot at any stage, it can be withdrawn. If a Change Request is currently being balloted, it can be withdrawn by the author or the Working Group or Committee Chair. If a Change Request has been successfully balloted at the Technical Committee, a subsequent Change Request to withdraw the prior Change Request must be submitted and successfully pass ballot. In this case, the Change Request to be withdrawn is noted in the new Change Request as being a Dependent Change Request.

4 Numbering and Versioning DMTF Documents

DMTF Documents, with the exception of Schema, are given a DMTF Specification (DSP) number. The version information for the document is inserted following this DSP number. Schema are released as versioned MOF files with associated graphical representations that are rendered using UML diagrams (provided in an acceptable format), as described in section 1.1.

DSP numbers associated with DMTF documents fall into the following ranges:

- 0001-0999 – Technical Specifications
- 1000-1999 – Profiles
- 2000-2999 – White Papers, Technical Notes, and other informational documents
- 3000-3999 – Working Group Charters
- 4000-4999 – DMTF Process documents
- 5000-5999 – Conformance Specifications

DMTF documents that were approved before December 31, 2004 may have DSP numbers that are outside of the preceding ranges. When these documents are revised, they must be changed to conform to the above categories. However, documents should not be revised only for the purpose of placing them into the appropriate document category.

4.1 Cover Material for DMTF Documents

The cover material required for DMTF Documents can be broken down into two categories: DMTF Documents and DMTF Schema.

4.1.1 DMTF Documents

This category of documents consists of all DMTF documents which are not Schema, regardless of their status in the release process. Use of a standardized cover sheet and format is strongly encouraged, but not technically required.

DMTF Documents must contain the following information, which is based on status:

- Title
 - The title of the document as registered with the DSP number was obtained.
- Version number
 - This must included in compliance with Section 4.2
- Date
 - This must be the effective date of the specification.

- Expiration date

The expiration date is only needed for Work In Progress or Preliminary Standard documents. It should be of the same format as the date.

- Logo

A DMTF Logo should be included on the cover page

- Abstract

An Abstract of what is included in the

A “Notice” section should also be included on the bottom of the Cover Sheet. It should include the following

- DSP number

This must be the DSP number obtained according to the policy in Section 1.2.

- Document Status

This must be the status of the document as enumerated in Section 2. Note that at certain phases, the status must have “- Pending” appended to it as according to Section 1.

- DMTF Copyright notice
- DMTF Confidentiality statement
- DMTF Patent Policy notice

Documents are encouraged to set attributes of the documents that allow hover text to include the title of the

4.1.2 DMTF Schema

DMTF Schema have separate cover material requirements from the rest of the documents. There is no actual cover page for schema documents.

Any DMTF non-cover page style document must have the following material in it's header:

- DMTF Copyright notice
- Version
- Abstract Description
- Status

The format of these are dependent on the file type format but must be consistent across files of the same type.

4.2 Specification, White Paper, and Document Numbering Process

Versioning of a DMTF Specification takes the form $m.n.u[d[dd]]$, where:

m represents the major version identifier in numeric form

n represents the minor version identifier in numeric form

u represents the update (errata or coordination changes) in numeric form

dd represents the draft in alphabetic form

Final and approved versions are represented using only numeric entries (for example, 2.2 or 2.2.1).

Any DMTF Specification which has not been approved as Final but is shared outside of DMTF Working Groups must have the draft identified. Any references to the specification version must include the alpha (dd) appended to the identifying number. Drafts are denoted starting with a single alpha and if necessary will progress to two letter notation. Thus drafts progress: a,b,c ... x,y,z,aa, ab....zz.

For example, a Preliminary Standard with version 2.2.0f will be released as a Final Standard with version 2.2.0.

Standards that are in the approval process for a release phase will append " - Pending" to the status to indicate that the document has not been approved by the appropriate level for the status change to take effect. Once the standard has achieved the proper level of approval, the " - Pending" is removed before the specification is released.

4.3 Availability of Document Versions and Obsolescence

The release of a new version of a specification, white paper, or document does not make previous versions obsolete. Versions become obsolete when the market no longer requires them. The underlying goal is upward compatibility between versions. This goal should be approached with caution because maintaining upward compatibility between versions may not always be possible. Updates to a specific version and release of a specification, white paper, or document are submitted as Change Requests. Updates are used exclusively for errata or to incorporate smaller changes that are required between releases for schedule coordination with other organizations. Updates are numbered by the third significant digit after the release number (that is, 2.2.1). Each specification must contain a change history. (For graphical documents, such as UML diagrams, that are not conducive to including a change history, this history is repeated in the MOF file.) The status of these documents must be indicated as "Work In Progress," "Preliminary Standard," or "Final Standard." A change log and completed Change Request forms must be maintained for all specifications, white papers, and documents.

For a given version of a DMTF Standard, at most one draft may be shared as a Work in Progress, released as a Preliminary Standard, or released as a Final Standard. For example, it is not permissible for version 1.0.0f of a document to be shared outside of DMTF Working Groups as a Work in Progress simultaneous with the released of version 1.0.0g as a Preliminary Standard.

4.4 Schema Numbering Process

A new schema is released using MOF and follows a version naming convention similar to the convention used for specifications, white papers, and documents (that is, using the format *m.n.u*, *major.minor.update* version). Version information is included in the header of the MOF file after the title and filename. (These are the first comment lines in the MOF file.)

The CIM schema that starts in version 2.10 includes both Experimental and Final types of MOF. Experimental MOF includes new classes or changes that require implementation feedback. MOF changes that require implementation feedback must be tagged with the experimental qualifier.

The version of a class is updated when the class is changed. The version of the class becomes the version of the schema into which the change has been made.

Approved Change Requests to correct MOF syntax errors, such as cardinality mismatch or other updates for standards coordination are indicated using a third numeric value. For example, correcting a cardinality problem in version 2.2.0 would result in a new version that is identified as 2.2.1.

If the DMTF defines a new schema that is NOT backward compatible with a previous release (that is, one that reorders or changes the existing key or inheritance structure), then that schema becomes a new major version (that is, Schema version 3.0.0).

Each Schema release combines all of the Working Group changes to produce a self-consistent, commonly labeled version.

4.5 Versioning the CIM Infrastructure Specification

Updating the minor version number of the CIM Infrastructure Specification indicates that the changes do NOT require a change to the parsers, browsers, and other tools that consume CIM MOF. For example, Specification version 2.2 may be updated to become version 2.3

However, if there is a specification change that adds new data types (or otherwise affects existing MOF tools), this change is incompatible with existing tools and must carry a new major version. As a result, version 2.n would become CIM Infrastructure Specification version 3.0.

Appendix A – Change History

Version 0.1	August 21, 2001	Initial release
Version 0.2	August 22, 2001	L. Rafalow input
Version 0.3	August 23, 2001	Board input
Version 0.4	September 13, 2001	L. Rafalow and A. Westerinen input
Version 0.5	September 20, 2001	L. Rafalow, A. Westerinen, R. Moore, and J. Schott input
Version 0.6	December 10, 2003	T. Guay – Converted to use new template and applied the TC approved changes in CR638
Version 1.0	December 17, 2003	T. Guay – Updated document to reflect the current V2.8 process for TC review/discussion/changes.
Version 1.01	February 23, 2004	TC review feedback from the Face to Face
Version 1.02	April 9, 2004	T. Guay – Added informational status per TC recommendation.
Version 1.0.3	May 5, 2004	Cleaned up the document based on TC comments to prepare for ballot in the TC.
Version 1.1.0	May 14, 2004	Comments from CR1230 ballot
Version 1.1.0a	June 1, 2004	Comments from CR1230 ballot iteration
Version 1.1.0b	June 9, 2004	Comments from Veritas and HP
Version 1.1.0c	June 17, 2004	Final TC feedback
Version 1.1.0d	July 26, 2004	Board ballot feedback
Version 1.2	October 22, 2004	T. Guay – Changed casing of musts/etc, added the section on CVS, DSP categories, fixed the versioning to make it consistent, clarified implementation experience.
Version 1.2a	November 7, 2004	T.Guay – Clarified implementation experience section based on Brocade ballot feedback. Changed “shall” to “must” based on EMC ballot feedback.
Version 1.3	July 25, 2005	T. Guay – Updated document to clarify that each specification change must have a separate CR, correct Visio version, changed CIM schema version number based on the new process.
Version 1.4	October 5, 2005	Editorial update
Version 1.5a	April 20, 2006	Process committee changes.

Version 1.5b	May 1, 2006	Process committee changes.
Version 1.5c	May 12, 2006	Added Compliance Specification section
Version 1.6.0	January 17, 2007	Added CR Withdrawal Process and clarification on balloting