System Management Forum

Conformance Program Issue Tracking Process

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This document’s normative language is English. Translation into other languages is permitted.
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1 Introduction

The SMF will use the open source tool “Mantis” to track issues related to the development and release of the conformance programs it develops and maintains, including implementation specifications, Conformance Test Suites (CTS), program documentation, and program tools and infrastructure. This paper defines the process of tracking open issues relevant to release of a conformance program, including the data model for the Mantis database, the life-cycle of a Mantis record, and the roles and responsibilities of participating companies, individuals, working groups, sub-committees and forums of the DMTF in the issue tracking process.

The process flow defined in this document is presented graphically in a companion document entitled “SMF Issue Resolution Process”. This document is stored in Adobe PDF format on the SMF group web site at the following link:

2 Roles and responsibilities

2.1 SMF Chair(s) and Program Manager
The SMF Chair(s) and Program Manager are responsible for administration of the Mantis configuration for tracking Conformance Program issues. The Chair(s) and Program Manager are also responsible for monitoring the Issue Resolution Process and managing updates to entries when necessary.

2.2 CTS source control manager
The SMF will appoint a source control manager who must be an employee of an SMF member or a contractor or a vendor of the SMF. The source control manager is responsible for reviewing SMF-confirmed fix proposals for design and integration issues. If the CTS source is maintained by the SMF, the source control manager is also responsible for ensuring that all source submissions are authorized by an SMF Mantis entry and that all files submitted contain comments that document the Mantis entry identifier and a short description of the change to that particular file. If the CTS source is maintained by a vendor, then requirements in this section do not apply.

2.3 Reporters
Any SMF member may report issues. Reporters are responsible for tracking issues that they enter until the issue is resolved. Reporters or Developers have the exclusive responsibility to set an issue status to “resolved”. The SMF has the responsibility to verify the correctness of the resolved issues.

2.4 Program Administrator
The Program Administrator of an SMF conformance program is responsible for reporting issues on behalf of any conformance program Participant that is not a member of the DMTF or SMF. (That is, issue tracking system login is only allowed to DMTF members.) The Program Administrator is responsible for ensuring that the Participant receives or has access to issue status information.

2.5 Assignees or testware developers
A testware developer may represent an SMF member company or a Contractor of the SMF or a Vendor of the SMF.

Any SMF member may be assigned an issue for resolution. Resolution may take the form of a specification or Conformance Test Suite modification.

Contractors or vendors of the SMF may also be assigned issues for investigation and estimation and for resolution.
2.6 SMF Leadership Members

SMF Leadership Members are responsible for reviewing all new issues, accepting new issues for resolution, approving proposed fixes, and closing resolved issues. SMF issue resolution process decisions may be made in one of two ways: a decision made during a regularly scheduled SMF meeting or agreement of two or more members recorded in the Notes of a Mantis entry. When Issue Resolution Process decisions are made in a regular SMF meeting, the SMF Chair(s) or Program Manager must update the entry with a Note containing the date of the meeting and the meeting minutes must reflect the decision made.
3 Data model

This section describes the SMF’s specific use of the data model implemented by Mantis. Each record in Mantis will represent a single issue reported by a single individual. An issue may be created citing conformance testware, a DMTF specification, or other DMTF working group or forum deliverable.

Each Mantis record contains the fields below. Those fields in bold text represent fields that must be added to the standard distribution of Mantis (i.e., customization of Mantis).

The SMF use of these fields is described in the sections that follow.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Mantis-assigned, unique identifier for the issue</td>
</tr>
<tr>
<td>Project</td>
<td>General project that the issue is related to</td>
</tr>
<tr>
<td>Category</td>
<td>A sub-area of the project identified in &quot;Project&quot; (enumeration)</td>
</tr>
<tr>
<td>Summary</td>
<td>Reporter-entered short text description of issue</td>
</tr>
<tr>
<td>Description</td>
<td>Reporter-entered long form text description of issue including its resolution.</td>
</tr>
<tr>
<td>Reporter</td>
<td>Individual reporting the issue</td>
</tr>
<tr>
<td>Assigned</td>
<td>Individual assigned the issue for resolution (a.k.a. “Developer”)</td>
</tr>
<tr>
<td>Priority</td>
<td>Reporter-assigned priority of the request (enumeration)</td>
</tr>
<tr>
<td>Severity</td>
<td>Reporter-assigned severity of the issue (enumeration)</td>
</tr>
<tr>
<td>Reproducible</td>
<td>Observation of reproducibility (enumeration)</td>
</tr>
<tr>
<td>Projection</td>
<td>Estimate of work required to modify the product</td>
</tr>
<tr>
<td>Date Submitted</td>
<td>Date Reporter entered the issue</td>
</tr>
<tr>
<td>OS</td>
<td>Operating System used by Reporter</td>
</tr>
<tr>
<td>OS Version</td>
<td>Operating System version used by Reporter</td>
</tr>
<tr>
<td>Platform</td>
<td>System hardware used by Reporter</td>
</tr>
<tr>
<td>View Status</td>
<td>Reporter-assigned visibility of issue (enumeration)</td>
</tr>
<tr>
<td>Updated</td>
<td>Last date record was updated</td>
</tr>
<tr>
<td>Status</td>
<td>Process status of the issue record (enumeration)</td>
</tr>
<tr>
<td>Resolution</td>
<td>Disposition of the issue resolution (enumeration)</td>
</tr>
<tr>
<td>Fixed in Version</td>
<td>Developer-assigned Conformance Test Suite version to contain the resolution</td>
</tr>
</tbody>
</table>
3.1 Project
For tracking conformance test suite issues using Mantis projects, the SMF will group CTS issues at the highest level by initiative Conformance Test Suite release. Examples of “projects” are: “SMASH CTS v1.0”, “DASH CTS v2.0”, etc.

3.2 Category
The SMF uses the “category” enumeration to track the sub-component of the Conformance Test Suite that is the focus of the issue record. In general, these categories will reflect the areas of conformance and not specific documents, testware, or source data files. Specifically, the category values used by the SMF issue tracking are
- Profile names (not specification numbers or versions)
- CIM infrastructure specification names
- WBEM protocol specification names
- General categories (“Conformance Testware”)

For example, for the category “Fan Profile”, the issue record may be for an issue relevant to the Fan Profile specification or to a conformance test for the Fan Profile. For the categories related to DMTF specification, the specific DMTF deliverable is identified (see requirement citation section).

3.3 Summary/Description
A Reporter-entered text description of the issue is required.
The Summary field is a short text description of the issue.
The Description field is a long form version of the summary. The Description field should contain enough detail about the issue to allow the SMF to determine what the issue is.
The following sections describe elements that the Description should contain.

3.3.1 Requirement citation
The Reporter should include a requirement citation in the Description text to note the specific document reference for the relevant conformance clause or relevant testware requirement. This reference must uniquely identify the text that states the requirement the implementation must meet and that the conformance testware must evaluate. The Reporter should include this citation in the issue record when created.
The requirement citation should be the first line in the Description when included and should be formatted as follows:

<doc-id>:<revision>:<section#>:<doc-line#>:<req’t-index>

For example,

DSP1052:1.0.0b:7.1.1:282:1

References the 1.0.0b revision of the Computer System Profile, Section 7.1.2, line 282. The requirement states that the OtherIdentifyingInfo value must be a valid MAC address when “CIM:MAC” is the value of the corresponding IdentifyingDescriptions property.

The doc-line# is optional and is used when available.

The req’t-index is used whenever a line number references a table or some other text format where multiple requirements are located at the same line number.

### 3.4 Reporter

Reporters are any individuals with authorized access to conformance test suites developed and maintained by the SMF. These may include individuals who participate in the SMF, employees of their companies, members of the relevant DMTF working groups (e.g., SDMPWG), etc. Reporting individuals must be employees of DMTF member companies and must have a DMTF login in order to enter an issue.

### 3.5 Assigned

Individuals who are assigned issues for resolution must be employees of DMTF member companies or Contractors or Vendors of SMF and must have a DMTF login in order to enter an issue. Assignees may be individuals who participate in the SMF, are employees of a DMTF member company, or are members of the relevant DMTF working groups (e.g., SDMPWG). Contractors or vendors of the SMF may also be assigned issues for investigation and estimation and for resolution.

In general, issues deemed by the SMF to be resolved in conformance testware are assigned to the SMF program manager, an SMF member, or to an SMF member individual who represents the testware development project to the SMF. Issues deemed by the SMF to be resolved in a DMTF specification are assigned to the chair of the relevant DMTF working group, committee, or sub-committee.
3.6 Priority

The “priority” is the urgency of resolution perceived by the Reporter. The “priority” is assigned by the Reporter and is changed only by the Reporter (e.g., the urgency may change during the life of the issue). The values of “priority” are as follows:

<table>
<thead>
<tr>
<th>priority</th>
<th>SMF usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>The Reporter doesn't care when this is addressed. The SMF may never address this issue.</td>
</tr>
<tr>
<td>low</td>
<td>The Reporter feels that this can be addressed “when the SMF gets around to it”. The SMF may address this issue in a future release of the conformance test suite.</td>
</tr>
<tr>
<td>normal</td>
<td>The Reporter feels that this is a typical issue. The SMF will address this issue on a first-in, first-out basis.</td>
</tr>
<tr>
<td>high</td>
<td>The Reporter feels that this issue should be addressed before other typical issues or that this issue is fundamental. The SMF should address this issue before all normal priority issues.</td>
</tr>
<tr>
<td>urgent</td>
<td>The Reporter feels that this issue should be addressed as soon as possible. The SMF should address this issue before all high priority issues and should consider holding the release of an upcoming conformance test suite version to include a resolution for this issue.</td>
</tr>
<tr>
<td>immediate</td>
<td>The highest urgency recognized by this process is “urgent”. The priority “immediate” is not used by the SMF.</td>
</tr>
</tbody>
</table>
3.7 Severity

The “severity” field is used by the Reporter to describe the effect that the issue has on their ability to use the conformance test suite with their implementation. This value is not modified once set by the Reporter. The acceptable values for “severity” are defined by an enumeration as follows:

<table>
<thead>
<tr>
<th>severity</th>
<th>SMF usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>block</td>
<td>The issue prevents the use of subsequent conformance test suite functionality or blocks the execution of conformance tests available.</td>
</tr>
<tr>
<td>crash</td>
<td>The issue causes the conformance test suite to crash/fail.</td>
</tr>
<tr>
<td>major</td>
<td>The issue identifies either the failure of the conformance testware to properly test a requirement of a specification or the failure of a requirement specification to clearly define the requirement for the implementation.</td>
</tr>
<tr>
<td>minor</td>
<td>The issue is with the usability or some other aspect of the conformance test suite that does not relate to the proper testing of conformance requirements (e.g., testware halts without warning if disk space is not available)</td>
</tr>
<tr>
<td>trivial</td>
<td>The issue reports a trivial aspect of the conformance test suite (e.g., formatting of output) that does not affect the function of the conformance test suite.</td>
</tr>
<tr>
<td>tweak</td>
<td>Not used by the SMF—use “trivial” instead.</td>
</tr>
<tr>
<td>text</td>
<td>Text in the conformance test suite or referenced specifications is in error but the error does not affect the proper execution of the conformance test suite or the proper interpretation of a specification.</td>
</tr>
<tr>
<td>feature</td>
<td>This issue item is a request for a new usability feature of the conformance test suite (e.g., “include % complete in the output”) This value is not to be used to report a failure to test a test point of a specification or some other failure to properly test an implementation for conformance.</td>
</tr>
</tbody>
</table>

3.8 Reproducible

Reproducible

Reporter-assigned observation of reproducibility (enumeration). This field is optional in SMF usage. The reporter should provide instructions for how to reproduce the bug as well as details about the environment used to report the bug.

3.9 Projection

This field is not used by the SMF.

3.10 Date Submitted

Date reporter entered the issue is automatically-assigned by Mantis.
3.11 **OS**
Operating System used by Reporter (optional).

3.12 **OS Version**
Operating System version used by Reporter (optional).

3.13 **Platform**
System hardware used by Reporter (optional).

3.14 **View Status**
This field is not used by the SMF.

3.15 **Updated**
Last date record was updated, automatically-updated by Mantis.
3.16 Status

The “status” field is used to track the process flow disposition of the issue record itself. An issue will follow the SMF Issue Resolution Process for issue reporting, tracking, and resolution.

The following table describes the possible issue states and the SMF usage of those states. The columns “status”, “assignee”, and “resolution” represent possible values for these entry fields in Mantis. The column “SMF usage / next action” describes the status of an issue in this state and the next action to be taken towards resolution. The “Set by” column indicates which SMF actor places the issue in this state. The “Owned by” column indicates which SMF actor owns the next action.

For some issue statuses, the ‘assignee’ and ‘resolution’ fields are used to clarify the state of the issue and to determine the next action that should be taken on the issue.

<table>
<thead>
<tr>
<th>Status</th>
<th>assignee</th>
<th>resolution</th>
<th>SMF usage / next action</th>
<th>Set by</th>
<th>Owned by</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>&lt;any&gt;</td>
<td>&lt;any&gt;</td>
<td>A new issue</td>
<td>Reporter</td>
<td>SMF</td>
</tr>
<tr>
<td>Feedback</td>
<td>&lt;any&gt;</td>
<td>NOT [ open</td>
<td>SMF has determined that no specification or testware modification is warranted. Issue has been rejected by the SMF and needs verification by the Reporter.</td>
<td>SMF</td>
<td>Reporter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reopened</td>
<td>fixed</td>
<td>Reporter</td>
<td></td>
</tr>
<tr>
<td>[Assignee]</td>
<td>fixed</td>
<td></td>
<td>The owner has investigated and proposed a resolution for the issue. If a specification or testware modification was required, it has been completed and a draft or test version is available to the Reporter. The Reporter has been asked to verify that the resolution is acceptable.</td>
<td>SMF</td>
<td>Reporter</td>
</tr>
<tr>
<td></td>
<td>&lt;any&gt;</td>
<td>open</td>
<td>reopened</td>
<td>SMF or Assignee</td>
<td>Reporter</td>
</tr>
</tbody>
</table>

Issue cannot be properly investigated by the SMF – Reporter has been requested to provide additional details.
<table>
<thead>
<tr>
<th>Status</th>
<th>assignee</th>
<th>resolution</th>
<th>SMF usage / next action</th>
<th>Set by</th>
<th>Owned by</th>
</tr>
</thead>
<tbody>
<tr>
<td>acknowledged</td>
<td>&lt;any&gt;</td>
<td>&lt;any&gt;</td>
<td>SMF deems that the report contains enough information to warrant investigation</td>
<td>SMF</td>
<td>SMF</td>
</tr>
<tr>
<td>confirmed</td>
<td>&lt;blank&gt;</td>
<td>NOT [ open</td>
<td>SMF has performed a first-pass analysis of the issue and believes there is enough data to assign the issue to an SMF member, a testware developer, or to a DMTF working group for further analysis and resolution</td>
<td>SMF</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reopened</td>
<td>Reporter has provided additional feedback/details about the issue.</td>
<td>Reporter</td>
<td>SMF</td>
</tr>
<tr>
<td>Assigned</td>
<td>[Assignee]</td>
<td>open</td>
<td>reopened</td>
<td>SMF has assigned the issue to an individual who is either a member of the SMF, a testware developer, or the chair of a DMTF working group for resolution in testware or a specification.</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td>[Assignee]</td>
<td>fixed</td>
<td>The owner has investigated and proposed a resolution for the issue. If a specification or testware modification was required, it has been completed and a draft or test version is available to the Reporter.</td>
<td>Assignee</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td>&lt;non-blank&gt;</td>
<td>NOT [ open</td>
<td>The assigned individual has rejected the issue for resolution on behalf of the corresponding development group or DMTF working group.</td>
<td>SMF or Assignee</td>
<td>Reporter</td>
</tr>
<tr>
<td>Status</td>
<td>assignee</td>
<td>resolution</td>
<td>SMF usage / next action</td>
<td>Set by</td>
<td>Owned by</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Resolved</td>
<td>[Assignee]</td>
<td>fixed</td>
<td>The Reporter has verified the specification or testware modification and approves.</td>
<td>Reporter</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td>&lt;any&gt;</td>
<td>NOT [ open</td>
<td>Reporter has acknowledged the issue rejection and does not contest.</td>
<td>Reporter</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reopened</td>
<td>fixed ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed</td>
<td>&lt;any&gt;</td>
<td>&lt;any&gt;</td>
<td>The SMF has confirmed that the resolution is acceptable by the Reporter and that all</td>
<td>SMF</td>
<td>SMF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>dependent issues have also been resolved.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.17 Resolution

Owner-supplied disposition of the issue resolution (required).

### 3.18 Fixed in Version

Owner-assigned project version to contain the resolution (required).

### 3.19 Notes

Contains annotations and clarifications regarding an erratum or its resolution during the lifecycle of the Mantis entry.

Contractor or vendor notes should include ETA.
4 Process

The following sections describe the Issue Resolution process steps. These steps are correlated with the lettered tags on the SMF Issue Resolution Process flowchart, which appear here in parentheses at the end of each section heading.

4.1 Create new issue (A)

SMF members create new issues. New issues are placed in new status by Mantis. Each new entry must have the following fields entered:

- **ID**: Will be assigned by Mantis
- **Project**: Reporter must select
- **Reporter**: Will be assigned by Mantis
- **Priority**: Reporter-assigned priority of the request
- **Severity**: Reporter-assigned severity of the issue
- **Category**: Reporter should speculate which category the issue falls into; categories define the area of DMTF requirement specifications that the issue is related to
- **Summary**: Reporter-entered text description of issue
- **Description**: The Reporter should note which DMTF requirement is at issue by entering the requirement identifier as the first line of the Description.

The SMF is responsible for reviewing and processing all issues that have a “status” field value of “new” or that have a “status” field value of “assigned” and the “resolution” field is set to a value other than “open” or “reopened”.

4.2 Review new issues

The SMF will regularly review new issues and determine if enough information has been provided to determine if the issue should be resolved in conformance testware or in a DMTF specification.

4.2.1 SMF accepts issue for investigation (B)

The SMF places an issue in acknowledged status whenever there is sufficient information to determine how to proceed with issue resolution. An issue may be accepted either by decision of the SMF during a regularly-scheduled SMF meeting or by agreement of two or more SMF Leadership members recorded in the issue entry.

4.2.1.1 Contracted Developer or vendor estimates time to investigate

When the SMF accepts an issue for investigation (Status==acknowledged), an SMF-contracted developer is allowed to post an estimate for the amount of time expected to investigate and propose a fix. This estimate should be entered into the entry as a Note and should be labeled “Investigation Estimate: <hours>".
4.2.2 Proposing a fix

Once an issue is accepted by the SMF, any SMF member may propose a resolution (fix) by entering the proposed resolution in a note of the fix.

When a Contracted Developer or vendor posts a fix proposal, the contractor should also include “Investigation Actual: <hours>”.

4.2.3 SMF determines that more info is needed (I)

The SMF places an issue in feedback status and sets the “assignee” field to “[Reporter]” whenever there is insufficient information to determine how to proceed with issue resolution.

It is the responsibility of the Reporter to provide the needed information and to notify that the information has been supplied by setting the assignee field to “administrator”.

The Reporter is responsible for reviewing and processing all issues that have a “status” field value of “feedback” and an “assignee” field that contains their login.

4.3 Review acknowledged issues

The SMF will regularly review acknowledged issues and determine if the issue is best resolved with a conformance testware modification or if the issue should be resolved in a specification modification.

During the review of acknowledged issues, the SMF reviews the proposed fixes, if the CTS source is maintained by SMF.

An issue in “acknowledged” status must have an approved fix to be assigned to a developer for resolution.

4.3.1 SMF member proposes a fix

An SMF member may propose a fix for an issue at any time. The fix proposal must be either included in the Description at entry creation or added as a Note to the issue. If the CTS source is maintained by SMF the fix proposal must identify the files and line numbers in the files that are affected. A general description of the fix is acceptable; however, if the CTS source is maintained by SMF lines of code showing the exact change is preferred.

4.3.1.1 Contracted Developer or Vendor proposes a fix

When the contracted developer or Vendor proposes a fix, the contractor or Vendor should include an estimate for the amount of time expected to apply the fix. This estimate should be entered into the entry as a Note and should be labeled “Estimated Time to Fix: <hours>”.

4.3.2 SMF approves a proposed fix

The SMF must review proposed fixes and approve the proposed fix for implementation. Proposed fixes must be approved by the SMF, either in a regular meeting or by two or more members approval logged in the entry notes.

The SMF-appointed source control manager also reviews the proposed fix for design and integration issues.

Once a proposed fix is approved by the SMF and the source control manager, the issue is placed in “confirmed” or “assigned” status as determined in the following steps.
4.3.3 SMF confirms issue for resolution [C]

If an issue has an approved fix, but no developer is available for assignment, the SMF may place the issue record in **confirmed** status to indicate that the fix has been approved.

4.3.4 SMF assigns issue for resolution [D]

Issues that are to be resolved with a conformance testware modification are **assigned** to an individual or Contractor or Vendor who is authorized by the SMF to access and modify the conformance testware.

Issues that are to be reviewed and addressed in a specification are **assigned** to the working group chair of the working group that owns the specification.

Assigned issues must have the following fields completed:

- **Assigned** Individual assigned the issue for resolution

4.3.4.1 SMF assigns issue to Contracted Developer or Vendor for resolution

The SMF may assign issues to Contracted Developers or Vendor for resolution. If the issue was not investigated by the Contractor or Vendor, then the Contractor or Vendor must provide an estimated time-to-fix based on the approved fix proposal using the format “Estimated Time To Fix: <hours>”.

Once the SMF has the Estimated Time To Fix, then the SMF should first evaluate the cost of the fix and then determine whether to assign the issue to the Contracted Developer or Vendor for resolution.

4.4 Issues with multiple part resolutions

In some cases a single issue may require resolution in many DMTF products, testware and specifications, or may require many resolutions in one product, or both. Also, in some cases, there may be a separate Mantis issue tracking area established for the subject DMTF product and, in order to resolve the issue, a record is needed in the DMTF product’s Mantis project area.

When a single CTS issue requires resolution in a separate Mantis project area or requires resolution in multiple DMTF products, the primary (original) Mantis issue record shall be cloned to create one or more child issue records. Each child record shall track the resolution of a component of the primary issue.

The primary issue record shall remain in the CTS project area for the lifecycle of the issue. Child records may be moved to other DMTF Mantis project areas for resolution. When child records are moved to other DMTF Mantis projects, the issue resolution is subject to the issue resolution process of the owning DMTF body. The owning DMTF body shall not remove the relationship with the parent primary issue.

The primary issue shall not be considered as a candidate for “closed” status until all child issues have been resolved or closed.

Where the testware development organization is also using the DMTF’s instance of Mantis, the program manager/SMF member responsible is responsible for creating a child Mantis entry for the issue record. The child record will represent the status of the code changes. Multiple child records may be associated with the single SMF issue record, if needed.
Once the child record is created, the program manager/SMF member responsible moves the child record to the corresponding Mantis project area for testware issues. The child record will track the resolution of the particular testware issue only, not the status of the primary SMF CTS issue. Once the child testware issue is resolved, then the primary SMF CTS issue may be closed, provided all other child issues related to the CTS issue have been resolved or closed.

For example: An issue is logged for test ID “Protocol Test X”. The SMF determines that there is a testware fix to be made, but there is also a specification clarification needed to support the change. A second issue is created as a child issue of the “Protocol Test X” issue and is assigned to the DMTF working group responsible for the specification. The two issues are resolved in parallel. The developer is aware of the working group’s proposed change and makes the corresponding change in the testware. The testware issue is verified by the Reporter and the issue status is set to “resolved”. Later, the working group approves the specification change and sets the specification issue status to “resolved” and, when the specification is Final, “closed”. The parent testware issue can then be set “closed” by the SMF.

### 4.5 Testware and specification update processes (E)

SMF issue records remain in the assigned status as the testware development process or the working group specification review/update process investigates and develops a resolution. The assignee should update the notes field with following information:

- **ETA**  
  Owner-assigned expected resolution date

- **Reproducibility**  
  Observation of reproducibility

The SMF Issue Resolution Process recognizes that pre-defined processes are in place for both testware development and specification development. Each of these processes have mechanisms for tracking issues and resolving those issues. Specific details of this linkage are included in the following subsections.

When the issue owner has resolved the issue (either in testware or in a specification), then the issue record must be updated with the following information:

- **Resolution**  
  Disposition of the issue resolution

- **Fixed in Version**  
  Owner-assigned project version to contain the resolution

#### 4.5.1.1 Local identifier cross-tracking

If a private issue/bug tracking system is used locally by the member or Contractor or Vendor, the member or Contractor or Vendor is responsible for creating a corresponding issue record in the local defect tracking system used by the testware development organization and updating the SMF Mantis record with the local tracking identifier for that record.

#### 4.5.2 Moving issues to DMTF Mantis project areas for testware

In cases where the testware development organization is using a different project area within the DMTF’s instance of Mantis, the program manager/SMF member responsible is responsible for creating a child Mantis entry for the issue record and moving it to the appropriate Mantis project area. The child record will represent the status of the code changes. Multiple child records may be associated with the single SMF issue record, if needed.
4.5.3 Submitting a fix

The Assignee pursues resolution of the issue in testware and must take one of the following actions:

- Produce a fix for the testware that addresses the issue. When the fix is available to SMF members in a release candidate, the SMF issue record is updated with the “resolution” field value set to “fixed” status.

- Require more information to provide a resolution. In this case, the issue record is placed in feedback status and assigned to the Reporter, who is responsible for providing additional information.

When a contracted developer updates the entry with “resolution==fixed”, the developer should include a note containing the actual time-to-fix in the form “Actual Fix Time”.

4.5.4 Specification updates

The working group chair is responsible for creating a corresponding issue record in the defect tracking system used by the working group and updating the SMF Mantis record with the tracking identifier for that record. This may be a Change Request number (CR) or some other defect tracking identifier used by the working group.

4.5.4.1 Moving issues to DMTF Mantis project areas for specifications

In cases where the DMTF working group is also using the DMTF’s instance of Mantis, the program manager/SMF member responsible for the primary issue is responsible for creating a child Mantis entry for the issue record and moving it to the appropriate Mantis project area for the DMTF specification product. The child record will represent the status of the code changes. Multiple child records may be associated with the single SMF issue record, if needed. The working group will then own the child Mantis issue and will resolve the issue using working group issue resolution processes.

4.5.4.2 Updating specification issues

The working group pursues resolution of the issue within the normal working group processes and must take one of the following actions:

- Produce a modification for the specification that addresses the issue. When the modification is available to SMF members in a posted update to the specification, the SMF issue record is updated and the “resolution” field value is set to “fixed”.

- Require more information to provide a resolution. This is handled between the working group and the SMF without change to the assigned status of the issue unless the SMF and working group determines that specification modification is blocked and more information is required from the Reporter. In this case, the issue record is placed in feedback status and assigned to the Reporter, who is responsible for providing additional information.

- Decide that no change will be made to the specification. The arbitration of issues returned by the working group to the SMF is handled between the working group and the SMF without change to the assigned status of the issue until the SMF and working group arbitration has determined the best course of action for the issue resolution. When a course of action is determined, the issue may be placed back in the acknowledged status and the SMF pursues the course of action, which may result in the issue being confirmed again as a specification issue or as a testware issue. If the SMF agrees that the issue should be rejected, the issue is returned to
the Reporter by setting the “status” field value to “feedback”, the “resolution” field to
“won’t fix” or another appropriate value, and the “assignee” field is set to “[Reporter]”.

4.5.5 Reviewing fixed issues

The SMF regularly reviews issues that have the “resolution” field value “fixed” to determine if
further action is needed before requesting the Reporter to validate the resolution.

For specification change resolutions, the SMF will determine whether testware changes are
required by the specification change. If so, the issue is assigned to the testware
development organization.

If no further actions are needed, the SMF sets the status to “feedback”. The issue Reporter is
responsible for verifying that the resolution is acceptable.

4.5.6 Process steps for specification and testware

4.5.6.1 Specification or testware change is available to members [F]

The Assignee sets the “Fixed in Version” field to the appropriate release candidate identifier.
The SMF Chair(s) or Program Manager sets the “status” field value to “feedback”.

The Reporter is responsible for reviewing and verifying all issues that have a “status” field
value of “feedback” and a “resolution” field value of “fixed”.

4.5.6.2 Assignee rejects request to modify specification or testware [G]

The Assignee sets the “resolution” field value to a value that is not “open”, “reopened”, or
“fixed”.

The SMF is responsible for reviewing and processing all issues that have a “resolution” field
value other than "open", "reopened", or "fixed".

4.5.6.3 Assignee has insufficient info to fix issue [I]

The Assignee sets the “status” field value to “feedback”.

The Reporter is responsible for reviewing and providing feedback for all issues that have a
“status” field value of “feedback” and a “resolution” field value of “open” or “reopened”.

4.6 Reviewing rejected issues (H)

The Reporter is responsible for reviewing and verifying any issues that have been rejected by
the SMF. Rejected issues are indicated when the value of the “resolution” field is not one of
“open”, “reopened”, or “fixed” and the “status” field value is “feedback”.

4.7 Providing feedback (J)

The Reporter is responsible for providing feedback to all issues where the “status” field value
is “feedback”.

When feedback information has been added to the record, the Reporter returns the issue by
setting the “status” to “acknowledged”.
4.8 Verifying fixed issues (L)

The Reporter is responsible for reviewing and verifying any fixes that are indicated when the value of the "resolution" field is “fixed” and the “status” field value is “feedback”.

4.8.1 Testware and/or specification change verified (M)

When the Reporter has verified that the modifications available resolve the issue, the Reporter sets the "status" field value to “resolved”.

4.8.2 Appeal issue (K)

When the Reporter is not satisfied that the available modifications resolve the issue, the Reporter may reopen the issue.

4.9 Closing verified issues (N)

Once the issue resolution has been verified by the Reporter and indicated to the SMF by setting the “status” field value to “resolved”, the SMF is responsible for placing the issue record in closed status.

Issues are closed when all of the following conditions are met:

- All dependent Conformance Program issues have reached “resolved” status, including specification issues.
- The relevant DMTF specifications have achieved Final status.
- The Conformance Test Suite has been approved as Final.
## 5 Issue State Table

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<tr>
<th>Issue State</th>
<th>status</th>
<th>resolution</th>
<th>assignee</th>
<th>Owner</th>
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ANNEX A
(normative)

Change log

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