SPARC International Compliance and Compatibility Committee

Interface Nomination and Approval Process

Issue 0.6

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1. Overview

SPARC International chartered the Compliance and Compatibility Committee (C&C Committee) to identify, and develop consensus on, a robust set of interface specifications for use on all SPARC-based platforms. The committee fulfills this charter by creating periodic editions of the SPARC Compliance Definition (SCD) which defines the basis for SPARC product interoperability at the binary (run-time) level.

This document describes the procedures followed by the C&C Committee to consider, evaluate, and accept interface specifications for inclusion in the SCD.

1.1 Audience

SI and C&C members who want to sponsor an interface for consideration for inclusion in a future edition of the SPARC Compliance Definition.

1.2 Table of Contents

- Characteristics of an Interface Specification
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2. Characteristics of an Interface Specification

Any candidate interface under consideration for inclusion in the SCD must be evaluated against the following criteria.

a) The interfaces needs to be *just* an interface, not a specific product.

b) The interface must be a published specification that permits either an alternative implementation(s) or the construction of entities that mate with the

interface.

c) The interface must be suitable for a *binary* (run-time) interface, i.e., it must define a boundary at which mating is performed at execution. The interface must be able to be validated by automated tools.

d) There must be a commitment to stability and longevity of the interface. Interface definitions with a high degree of stability encourage the development of applications that consume that interface, so it is important that the interface be perceived as something that the SPARC community will live with for a long period of time. Therefore, there must be a commitment that the interface will not be changed in a non-upward compatible manner for a minimum of three years after the effective date of the first SCD edition that contains the interface. The three year value constitutes a strongly recommended guideline.

e) For credibility, as an interchange specification, any candidate interface must have at least one implementation that exports that interface which is available to the SPARC community. Any licensing terms and conditions are collected by the C&C Committee and presented to the I Board of DIrectors for final evaluation and approval.

f) There must be a validation suite available for testing conformance to the interface or a commitment to supplying such a suite within the near future. Terms and conditions for the suite are also part of the evaluation of a proposal.

3. Interface Nomination and Approval Process

This section defines the process wherein a candidate interface is nominated by a sponsor, evaluated by a Working Group, and approved by the C&C committee and SI Board of Directors for inclusion in a future SCD edition. See Figure 1 for a graphical representation of the process steps.

***Step 1**: Nomination of an Interface*

The discussion process for an individual interface specification is initiated within the C&C Committee by submission of a candidate interface to SPARC International. The submission can be made by any individual SIG or SI member. The specification should be submitted in writing to the *scc-interface@sparc.com* alias for assignment of a control number.

***Step 2**: Presentation to the Committee*

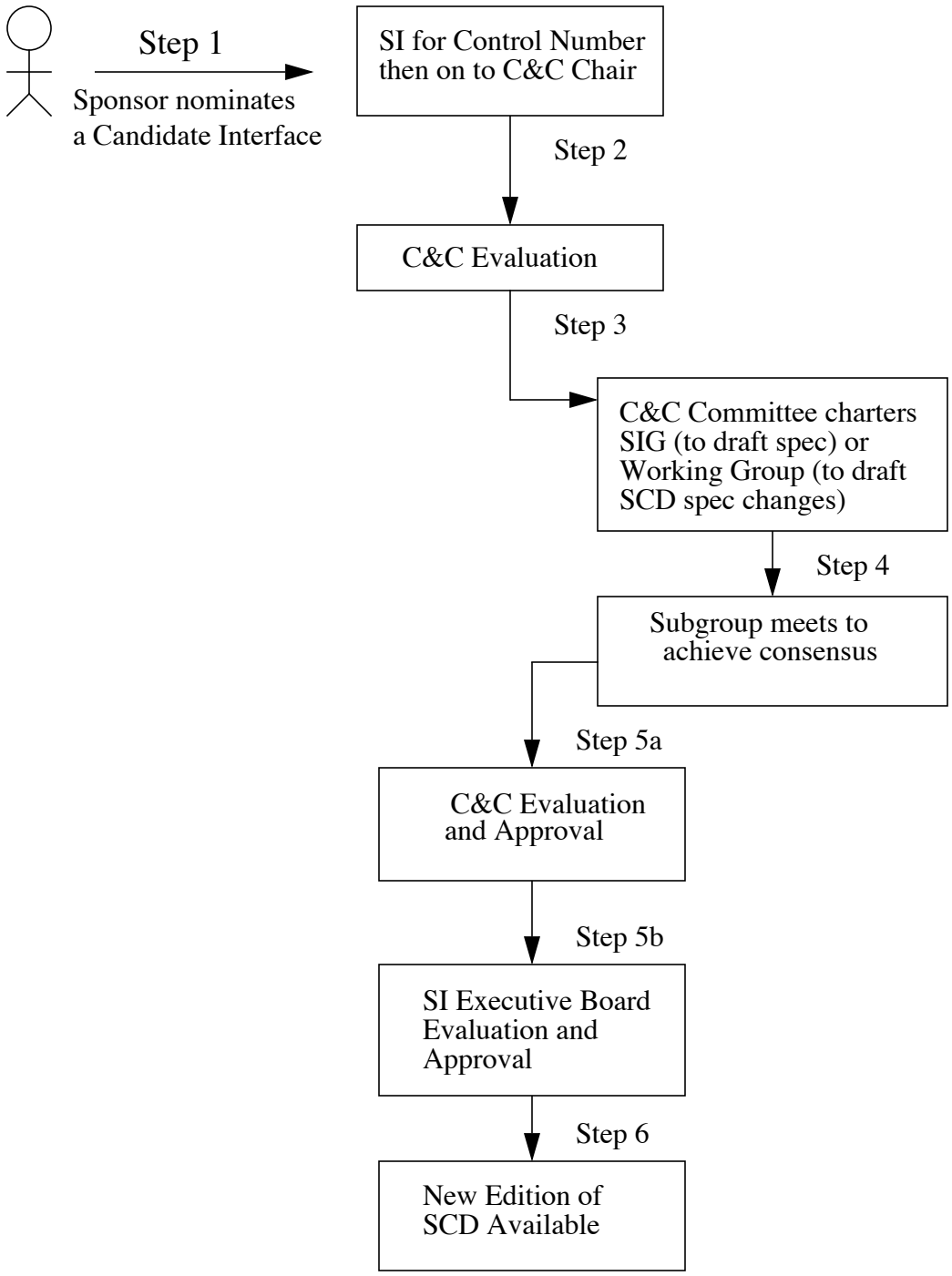

Figure 1: C&C Interface Nomination, Review and Approval Procedures

After assignment of a control number, the sponsor must forward the candidate interface to the C&C Chair. If the requested interface is unclear the Chair may request clarification from the sponsor, however such clarification may not delay the distribution of the proposal to committee members by more than 30 days. If no clarifications are necessary, the proposal will be distributed to all committee members by the Chair. The Chair will add discussion of the candidate interface on the next C&C committee meeting agenda, provided that the candidate specification is available two weeks prior to the next scheduled meeting.

Step 3*: Evaluation of a Nominated Interface*

In order to be accepted by the C&C committee for consideration, a candidate interface specification should meet the criteria listed earlier in this document.

The committee may either directly evaluate the nominated interface using the evaluation criteria, or charter a Working Group to evaluate the nominated interface on behalf of the committee. In either case, if the candidate interface acceptably meets the criteria above, it will be assigned to a Working Group for a more detailed review and discussion by interested parties within the committee.

Formation of a Working Groups is achieved by a simple majority vote at a regularly scheduled C&C Committee meeting.

Step 4*: Working Group Review Forums*

If approved by the C&C committee for further consideration, a Working Group will be established to provide a forum for interested committee members to discuss the details of the interface. The interface sponsor must provide a text submission for the candidate interface to the Working Group in a scope and depth consistent with the existing SCD document. The submission must be made in either plain ASCII text files or a Postscript file.

It is the responsibility of the Working Group Chair to determine the most productive information exchange sessions. This can include email discussions, weekly/monthly meetings, special subcommittee meetings, or conference calls. The Working Group will provide status reports to the C&C Committee members regarding the state of their progress. The Working Group is encouraged to make draft specifications available to the C&C Committee for review and comment.

Once the Working Group has developed the text for inclusion to the SCD, including all changes and modifications in other parts of the document related to this interface and has reached a consensus regarding the state of the candidate interface specification, it then submits its work to the full C&C committee for review. This submission must include the following information:

Control Number Initial control number assigned by SI

Interface	Name given to the set of interfaces to be included
Revision Date	Date interface specification document was produced
Class of Interface	Mandatory or Optional, where Mandatory Interfaces must be provided and Optional Interfaces may or may not be provided; if provided they must adhere to the interface as defined.
Synopsis	A brief (one paragraph) description of the interface
SCD Text	The interface specification, including all commands, libraries, header file information, associated version numbers, and any other information deemed necessary by the Working Group to fully define this interface
Rationale Text	The rationale, describes and summarizes the Work Group's decisions for including this set of interfaces.
Reference Documents	Any other documents required to fully define the set of interfaces specified

***Step 5**: Approval / Rejection of a Candidate Interface*

In keeping with the spirit of the TLTA, there will be a two-stage approval process for the final drafts of all interfaces, the first at the C&C committee level and the second at the SPARC International Executive member level.

Note that automated test tools must either be supplied with the candidate interface or developed, for a fee, by SI (or an SI member) before inclusion in the standard can be approved.

***Step 5a**: C&C Committee Approval*

The C&C Committee will review the proposed changes to the SCD that represent the incorporation of the draft interface specification and must approve it by a 2/3 majority of its members, with one vote per organization. Note: as an item of practicality, the 2/3 majority must include approval of all SI Executive Board member representatives. Voting for the approval of an interface must be a scheduled agenda item and all voting material must be made available two weeks in advance of any voting session.

If approved, new interfaces will be assigned to an edition of the SCD specification that has an effective date no less than 6 months, but not more than 12 months, in the future so that members have a reasonable opportunity to create products supporting that specification prior to its perception as "the current standard." This

property could be relaxed for interfaces that are classified as "Options."

***Step 5b**: SI Board Approval*

Once approved by the C&C Committee, the SCD edition will be circulated to all SI Board of Directors for comment. The comment period shall be thirty days. Voting by the Executive level members will be scheduled at the discretion of the SPARC International Chair. A proposal shall only be adopted by unanimous vote of the SI Board members. With Sun's written waiver of the requirement for unanimity, SI may agree, by majority vote of its executive members, that all future changes to the SCD will be approved by a supermajority vote of its Executive members. The supermajority shall not be less than two thirds of the SI Executive members.

***Step 6**: SCD Publication*

After final approval by the SI Board, a new edition of the SCD will be published by SI.

4. SCD Version Numbers and Publication Schedule

4.1 Publication Schedule

The goal is to have new editions of the SCD specification available every 6 months. Given this regularly scheduled release model, whatever interfaces are approved when the publication date occurs will be included in the release. Interfaces still undergoing review will be postponed until a future edition, i.e., the date will not be held to include a specific specification.

This approach leads to two annual publication schedules, as follows. C&C Working Groups should be aware of the following guidelines when submitting their interface specifications for review and approval by the C&C committee.

Schedule 1:

- July: Working Group exists
- September: Cutoff for WG submissions to C&C for new additions
- November: C&C Committee Meeting Approval
- December: SI Board Meeting Approval
- January: Publication
- March UniForum Announcement

Schedule 2:

- March: Cutoff for any new additions
- May: C&C Committee Meeting Approval
- June: SI Board Meeting Approval

- July: Publication
- August: Announcement

4.2 Version Numbering

The SCD version number is determined by its technology contents and the level of compatibility incorporated in the particular edition. As such, the exact number can only be determined when the edition is approved for publication.

The versioning convention of SCD Version "Major.Minor.Micro" will be used, where these terms are defined as:

- Major Release
  - *Version*: X.0 is a major release, i.e., major releases always have a zero as the minor release number.
  - *Content*: A major release introduces or changes significant interfaces and architectural features. It may include errata from previous releases.
  - *Compatibility*: It is typically incompatible with prior releases, although it is not required to be incompatible.
  - *Schedule*: Major releases are not a regular occurrence.
  - *Publication*: Should be available through SPARC International.
- Minor Releases
  - *Version*: X.Y, where Y > 0 is a minor release.
  - *Content*: A minor release introduces non-interfering new Mandatory or Optional interfaces and architectural features, plus errata.
  - *Compatibility*: A minor release must contain all of the Mandatory and Optional interfaces that were in the previous minor or micro release against the previous major release, including errata.
  - *Schedule*: Minor releases occur with fairly predictable regularity following the base major release (the goal is every six months).
  - *Publication*: Should be available through SPARC International.
- Micro Releases
  - *Version*: X.Y.Z, where Z > 0 is a micro release.
  - *Content*: A micro release incorporates errata or introduces a limited set of new interfaces.
  - *Compatibility*: A micro release does not introduce incompatibilities with the prior minor or micro release upon which it was based. Any perceivable difference between the micro release and the base minor

release must be a direct result of an errata change.

- *Schedule*: Micro releases are scheduled as necessary.
- *Publication*: For cost reasons, it is recommended that SPARC International make micro releases available only by an automated mailing list.

5. References

- SPARC International Compliance and Compatibility Committee - Rules, Process and Procedures, December 1992.
- SPARC International Compliance and Compatibility Committee - SCD Testing, Compliance and Waiver Procedures, December 1992.
- Technology License and Trademark Agreement, June 12, 1990.
- AT&T, System V Application Binary Interface, 1990, Prentice Hall, ISBN 0-13-877598-2.
- AT&T, System V Application Binary Interface: SPARC Processor Supplement, 1990, Prentice Hall, ISBN 0-13-877630-X.