

To: JTC 1
From: John L. Hill, Chairman, JTC 1/SC 22
Subject: Study Group on Linux Report

Background:

During the 2002 meeting, JTC 1 approved the following resolution.

Resolution 11 - SC 22 Study Group on LINUX

JTC 1 appreciates the offer of the SC 22 Chairman to establish a Study Group on LINUX in SC 22.

JTC 1 asks SC 22 to:

- Accept nominations from JTC 1 National Bodies and other SCs, as well as Liaison Organizations and JTC 1 Recognized PAS Submitters, for participation in the Study Group.*
- Assess how its present activities are relevant to the LINUX Operating System market.*
- Assess how the activities of the Free Standard Group and other organization may be of interest with SC 22 mandate.*
- Initiate, if it judges it necessary, activities to increase the relevance of its work program to the LINUX Operating System market, as per the JTC 1 Directives.*
- Report on its activities to the next JTC 1 Plenary in 2003 in Singapore.*

As Chairman of ISO/IEC JTC 1 SC 22 on Programming Languages, Their Environments and System Software Interfaces, I called a meeting to accomplish the goals of the resolution. This document reports the results of that meeting:

Assessment of Outcome:

This section of the report shows the results of the meeting in comparison with the objectives as identified in the resolution (above). The meeting accomplished all the objectives JTC 1 set for it.

Objective	Accomplishment
Nominations	The attendance shows representation from eight national bodies, one JTC 1 liaison organization, and three organizations having no formal relation with JTC 1 in this subject matter. No prospective attendee was denied.
Linux Assessment	The vast majority of meeting time was taken in this activity. Nine contributions related to this.

Objective	Accomplishment
SC 22 PoW Assessment	The review took place. The scope POSIX (i.e., ISO/IEC 9945) 2003) overlaps a substantial part of LSB, however LSB is not a proper subset of POSIX.
Initiate Activities	The meeting approved recommendations urging: <ul style="list-style-type: none"> • FSG to become a PAS submitter • SC 22 to accept FSG as a Category A liaison organization • Canada to coordinate development of an NP
Report to JTC 1	This is the report

The Meeting:

The British Standards Institution (BSI) hosted the meeting on 2003-05-28/30 in Gunnersbury, UK. The attendance was as indicated below: Note that many attendees signed as representing multiple groups.

Group	Count	Representatives
National Bodies/Representatives (Canada, Denmark, Germany, Japan, Netherlands, Norway, Switzerland, UK, USA)	9	20
JTC 1 Liaison Organizations (ECMA)	1	1
'Outside' Organizations (The Free Standards Group, The Open Group, USENIX Association)	3	12
JTC 1 Officers (JTC 1 Chairman, SC 22 Chairman)	2	1
Total Attendance	---	24

Input Documents:

The meeting considered 11 contributions as follows:

SC 22 Document	Title
N3563	Japanese Position on the Establishment of International Standard for Linux
N3564	Japanese Contribution on Publication Methods of Possible International Standard for Linux
N3565	Free Standards Group Contribution to the Linux Study Group Meeting, 28 May 2003, London, United Kingdom
N3566	Free Standards Group Presentation to the Linux Study

SC 22 Document	Title
	Group Meeting, 28 May 2003, London, United Kingdom
N3567	Contribution on API Standards for the Linux Operating System to the Linux Study Group Meeting, 28 May 2003, London, United Kingdom
N3568	Contribution on API Standards Briefing for the Linux Study Group Meeting, 28 May 2003, London, United Kingdom
N3571	Canadian National Body Position on Creation of a Linux Study Group
N3572	JTC 1/SC 22 Chairman's Contribution to Linux Study Group Meeting
N3573	Final Agenda for the JTC 1/SC 22 Study Group on Linux Meeting, 28-30 May 2003, London, UK
N3580	Revised Free Standards Group Presentation to the Linux Study Group Meeting, 28 May 2003, London, United Kingdom
N3587	UK Contribution on Linux

Recommendations Approved:

The study group approved the following recommendations. Please note that the form of the recommendations is not typical of those from other meetings. This meeting chose to use the expanded 'whereas' form of recommendation as a means of carrying justification within the recommendation.

Resolution SG-01 - Definitions

Whereas the Linux Study Group recognized many possible interpretations of the scope of Linux related terms,

Resolved that, for the purposes of this meeting and the materials arising from it, the following definitions will be used:

- a)"LSB ABI layer": the binary interface of the kernel, C library, I18N functionality and core utilities corresponding to the APIs presented in ISO/IEC 9945: 2003 POSIX;
- b)"LSB": the LSB ABI layer plus those other sections in the Linux Standards Base (LSB) document, namely Packaging, File Hierarchy, User and Groups and System Initialization;
- c)"Linux Distribution": everything on any vendor's Linux release.

Resolution SG-02 - Free Standards Group PAS

Whereas the Linux Study Group recognizes an urgent market need for International Standards for Linux, and

Whereas The Free Standards Group have developed the LSB Specification in an open fashion, and

Whereas the LSB covers a significant part of the scope this study group believes should have International Standard coverage, and

Whereas the Free Standards Group have expressed a desire to become a PAS Submitter under the JTC 1 Directives,

The SC 22 Linux Study Group encourages the Free Standards Group to apply for PAS submitter status and to submit the most appropriate versions of documents comprising the generic LSB Specification and at least one architecture-specific LSB Specification for approval as an IS by the PAS process.

Update: The Free Standards Group submitted an application to become a PAS Submitter. The application is now under ballot within JTC 1 as document JTC 1 N 7166, closing on 2003-10-30.

Resolution SG-03 - Free Standards Group Liaison

Whereas this Study Group believes that an active and ongoing dialog and liaison would be of benefit to both SC22 and to The Free Standards Group, and

Whereas cooperation between SC22 and The Free Standards Group is essential to ensure that there is no divergence in standardization efforts, and

Whereas The Free Standards Group have shown a need for such liaison with respect to multiple projects and Working Groups within SC22, and

Whereas The Free Standards Group have expressed a desire to establish a Category A Liaison with SC22,

The SC 22 Linux Study Group recommends that SC22 establish a Category A Liaison with the Free Standards Group as soon as possible.

Update: The Free Standards Group submitted an application for the establishment of Category A liaison with JTC 1/SC 22. The letter ballot contained in document SC 22 N 3619 closes on 2003-11-19.

Resolution SG-04 - Review and Comment for LSB 1.9

Whereas the Free Standards Group (FSG) will have version 1.9 of the LSB available for comment in early August, and

Whereas the FSG procedures allow for public review and comment, and

Whereas it is anticipated that such a document would form the basis of a future PAS submission,

The SC 22 Linux Study Group encourages SC 22 national bodies and working groups to participate in the FSG public review process and instructs the SC 22 secretariat to

distribute LSB 1.9 to SC 22 national bodies and working groups when it becomes available.

Update: The Free Standards Group has begun public review of LSB 1.9 and the text has been distributed to the participants of the Linux Study Group.

Resolution SG-05 - POSIX and LSB Convergence

Whereas there exist differences between POSIX standards and the LSB,

the SC 22 Linux Study Group encourages the UK national body to submit to SC22 an NP to produce a TR enumerating the conflicts between POSIX and the LSB.

Update: The UK National Body has submitted a new work item proposal contained in document SC 22 N 3632 (also see JTC 1 N 7171). The letter ballot closes on 2003-11-29.

Resolution SG-06 - Meeting Host

Whereas the Japanese National Body has extended an invitation to host the next meeting to progress any Linux-related projects,

the SC 22 Linux Study Group recommends that SC 22 accept the invitation from the National Body of Japan to host the next Linux-related international meeting.

Resolution SG-07 - Copyright and Copyleft Issues

Whereas the LSB specification is developed under the GNU Free Documentation License, and

Whereas such a license has not been previously used in an ISO publication,

The SC 22 Linux Study Group requests the JTC 1 Chair to bring this issue to the attention of the appropriate people within the ISO Central Secretariat at the soonest possible opportunity, and report back to SC22 and The Free Standards Group.

Resolution SG-08 - Linux Project

Whereas the scope of the effort to produce standards within the Open Source space is large, and

Whereas there is a need to address the International Standard aspects of such standards,

The SC 22 Linux Study Group encourages the Canadian National Body to coordinate a

discussion to establish the scope of this problem and to submit an NP if required to SC22 by 2003-08-01.

Update: The Canadian National Body established a mailing list for scope discussion. However, the discussion did not lead to a new work item proposal.

Resolution SG-09 – Timetable

Whereas the next plenary meeting of SC22 is to be held in Oslo in September 2003, and

Whereas there is a submission deadline 30 days in advance of that meeting for any documents to be considered for the agenda,

The SC 22 Linux Study Group encourages documents resulting from this study group be completed and submitted to the SC22 secretariat by 2003-08-01.

Resolution SG-10 - Harmonization of Work

Whereas there is a considerable degree of overlap between the POSIX and Linux scopes, and

Whereas it is seen as important to prevent divergence, even accidental, between POSIX and Linux, and

Whereas members of the Linux community have been active in the development of POSIX and there is already a good working relationship between the technical experts of both parties,

The SC 22 Linux Study Group recommends that all existing and new projects in both POSIX and Linux should be harmonized within SC22.

Appreciations

Whereas the British Standards Institution has afforded us fine hospitality and excellent accommodations, and

Whereas Messrs Thewlis, Stoughton, Simonsen, Kido, and Hiura have provided sterling service as the drafting committee, and

Whereas all the participants in the ISO/IEC JTC 1/SC 22 Linux Study Group have worked diligently under Mr. Hill's guidance to fulfill the terms of reference,

The SC 22 Linux Study Group thanks

- BSI, in particular Liz Dyer and David Keech,
- the Drafting Committee,
- Mr. Hill and Mr. Jameson,
- the delegations from the UK, USA, Japan, Canada, Germany, Norway, Switzerland, and the Netherlands,

- the Liaison delegations from The Free Standards Group, ECMA International, The Open Group and the USENIX Association,
- Sun Microsystems for hosting an excellent reception.

Personal Assessment:

The following are the personal comments I make having chaired the meeting.

- 1.The JTC 1 Directives do not provide for SC study groups. I used the (vague) procedures for 'Other Working Groups'.
- 2.The JTC 1 Directives seem inadequate for meetings in which the participants are either from national bodies, JTC 1 liaison organizations, or organizations having no formal relationship to JTC 1.
- 3.Not surprisingly, the representatives from organizations having no formal relationship with JTC 1 were unaware of JTC 1 processes. Considerable meeting time was consumed in explanation.
- 4.All the representatives attended each day of the meeting.