Meeting Summary:

This is the report from the Lead Rapporteur of the SC 22 Linux Rapporteru Group (LRG). The group met 3-5 February 2004 in Tokyo. The statistics of the meeting are:

- participants – 34
- national bodies represented – 7 (Canada, China, Japan, Korea, Singapore, UK, USA)
- other organizations represented – 4 (AOSS, DKUUG, ECMA, FSG)
- documents reviewed - 17
- recommendations approved - 17

Outcomes per the LRG's Assignment:

During its 2003 meeting, SC 22 approved recommendation 03-15. This section of the report is organized by assignment as indicated in that resolution.

This report uses the same definitions adopted by the LRG for use during the meeting.

- LRG   ISO/IEC JTC 1/SC22 Linux Rapporteur Group
- LSG   ISO/IEC JTC 1 Linux Study Group
- SC22   ISO/IEC JTC 1/SC22
- FSG   The Free Standards Group
- I18N   Internationalization
- LSB   Linux Standards Base
- Open Source   per http://opensource.org/docs/def_print.php (There was dissent from Canada over adopting this definition)

Topic	*Assignment*	*Outcome*
Reporting	JTC 1/SC 22 establishes a Linux Rapporteur Group and instructs the LRG rapporteur to complete the following tasks and report the results as soon as possible, but no later than the next SC 22 Plenary Meeting:	Held meeting
Technical Requirements	Identify technical requirements of JTC 1 National Bodies for "Linux Distribution," as defined in Resolution SG-01-Definitions of the Linux Study Group [Rapporteur's note: that definition is: "Linux Distribution": everything on any vendor's Linux release."]	Reviewed contributions
Publicly Available Technologies	Identify publicly available technologies, i.e. components of "Linux Distribution," and the control bodies for those technologies. The control bodies may include development projects for the technologies, specification development bodies, de jure or defacto standardization bodies, and experts	Reviewed contributions
Scope	Recommend the scope of standardization for "Linux Distribution" within SC 22 or JTC 1	NA

Topic	Assignment	Outcome
Issues and Risks	Identify the issues and risks of standardization for "Linux Distribution" and recommend a possible mitigation plan for those risks	See below
FSG Activity of Interest to SC 22	Assess how the activities of the Free Standards Group and other organizations may be of interest with SC 22 mandate	See below
SC 22 Activity of Interest to FSG	Assess which portions of the SC 22 Work Programme may be of interest to the Free Standards Group and other organizations	See below
Direction	Recommend the direction of standardization for "Linux Distribution," including the standardization process, and the feasibility of standardization within a new or existing SC 22 WG for "Linux Distribution," especially in identifying a relationship with other SC 22 standards including POSIX and C, and possible cooperation with external bodies of SC 22	See below

Topic	*Assignment*	*Outcome*
Lifetime	The life time of the Linux Rapporteur Group is one year, but may be extended by resolution of SC 22. SC 22 allows the rapporteur of the LRG to hold multiple meetings as needed within its life time.	*The LRG notes that it has completed all of its assigned tasks, and does not expect that it needs to meet any further before reporting to SC22. However, the LRG notes with appreciation the offers for future meeting hosts from Singapore and from the Danish Unix User Group, and encourages SC22 to accept these offers for future meetings related to Linux.*
Lead Rapporteur	SC 22 appoints John Hill as initial rapporteur of the LRG and it instructs him to hold the first meeting 3-5 February 2004 in Tokyo, Japan.	*NA*

Topic	Assignment	Outcome
Participation	The participants of the LRG are not necessarily limited to the members of SC 22. SC 22 directs the rapporteur of the LRG to accept nominations from JTC 1 National Bodies and other Subcommittees, as well as Conveners of SC 22 Working Groups, Liaison Organizations and JTC 1 Recognized PAS Submitters, or hold the meeting jointly with Linux or other open-source related non-profit organizations. SC 22 also instructs the rapporteur of the LRG to distribute the announcement of the first meeting at least one month prior to the meeting.	*See above*

Policy for Linux Standardization

The LRG recommends to SC22 that any International Standards related to Linux developed or adopted by JTC 1 be limited to specifications with at least one Open Source implementation.

1. Additional Requirements

The LRG notes that any member of SC22 is encouraged to forward national requirements directly to the FSG.

2. Participation in FSG

The LRG notes that all members of the LRG and SC22 are invited and encouraged to join the various FSG mailing lists to participate in FSG projects. The LRG recommends that SC22 actively encourages SC22 members to participate.

3. Linux I18N

The LRG encourages the FSG to consider the requirements raised in N3695 regarding basic internationalization functions in time for LSB PAS transposition.

4. Linux Advanced I18N

The LRG encourages the FSG to consider the points regarding advanced internationalization functions raised in N3695 and ISO/IEC 10646 enabling technologies raised in T6 for future specifications submitted by the FSG.

5. Printing on Linux

The LRG encourages the FSG to consider the points raised in T2 regarding printing issues for future specifications submitted by the FSG.

6. Linux Embedded Systems

The LRG encourages the FSG to consider the points raised in T3 regarding Linux Embedded Systems, and further encourages the FSG to work with organizations such as Emblix in this area.

7. Publicly Available Technologies Related To Linux

The LRG has identified that the following organizations have publicly available technologies or specifications that are within the scope described in recommendation 11:

- Desktop – freedesktop.org (loosely associated with the FSG)
- Graphical User Interfaces - X.org
- Reliability, Availability and Serviceability (RAS) – LKCD and LKST (note there are competing technologies in this area)
- Debug With Arbitrary Record Format (DWARF) – FSG
- LSB – FSG
- Accessibility – FSG
- I18N – FSG
- Printing – FSG
- Cluster Framework – FSG
- Linux Aassigned Names And Numbers Authority – FSG

8. Scope of Standardization for Linux Distributions

The LRG recommends that the term "Standardization for Linux Distribution" be defined as the scope of the LSB (as defined in resolution SG-01 in N3585), with the following extensions:

- Internationalization (short/medium term)
- Embedded Systems (medium/long term)
- Printing Management (medium/long term)

- Security and Trusted Systems (long term)
- RAS (kernel dumps and tracing) (long term)
- Accessibility (medium/long term)
- Desktop (long term)

The LRG notes that some of the work may involve other JTC 1 Sub-Committees, such as Printing Management with SC 28, Accessibility with SC 35 and Security and Trusted Systems with SC 27.

The LRG makes no assumption as to how or where the standardization work may be progressed, but notes that the FSG is actively developing specifications in a number of these areas.

9. Risk Mitigation

The LRG has identified three significant risks for future Linux Standardization

1. The technology is insufficiently mature.
2. There are multiple competing specifications that meet the same goal.
3. There is no commitment from the maintainer(s) of the software in question to follow the standards track.

and proposes that SC22 mitigates these as follows:

1. Ensure that the technology is mature by working with FSG to ensure that emerging technologies are not prematurely specified, and the LRG recommends there be at least one Open Source implementation of the technology.
2. The LRG recommends that SC22 work with FSG to identify any situations where there are multiple competing specifications under consideration, and to either wait for the market to pick one, standardize all competing areas, or standardize only the common areas between these specifications.
3. The LRG recommends that SC22 encourage the FSG to engage the upstream maintainers in the specification development process as early as possible. Where feasible, SC22 should also use its influence to encourage upstream maintainers to work with the specification body wherever possible.

10.Recommendations For Future Liaisons

The LRG recommends that SC22 encourage the FSG to establish liaisons with SC2 (coded character sets), and SC35 (User Interfaces), and as additional areas are identified, to establish relationships on a case by case basis as needed.

11.The Comparison Between POSIX and LSB

The LRG notes that documents SC 22 N3632 and N3694 establish a new work item comparing POSIX and the LSB, and notes that the SC22 project editor expects to have updated N3632 (a.k.a JTC 1 24715) to refer to LSB 2.0 shortly. The LRG recommends that the SC22 secretariat request JTC 1 initiation of a DTR ballot at the earliest opportunity, once the editor has indicated its readiness. The LRG recommends that the project editor calls and conducts an editing meeting to address specific ballot comments as soon as possible.

Further, the LRG, noting that no development and little maintenance is required for this document, recommends that this project not be assigned to any specific working group, and SC22 should directly manage this project.

6-1 (Canada)-0

2-0-2 (,DKUUG, ECMA)

12.Next Meeting

13.Participation of Relevant Organizations

Based on the positive experience in the LSG and LRG in engaging relevant organizations outside of the traditional JTC 1/SC22 participants, the LRG recommends that SC22 prepare a contribution to JTC 1 requesting formalization of rules to permit such participation in the future.

14.Appreciations

The LRG notes with considerable gratitude the excellent facilities and logistical support from the Japanese National Body, the Information-technology Promotion Agency Japan, Information Technology Standards Commission of Japan, and Waseda University, without which it is difficult to imagine that such progress could have been made.

The LRG especially notes its gratitude to Hachiya-san and Miyazaki-san for the IT facilities, the meeting web site, and the local network, without which the meeting would have been considerably less productive.

The LRG also wishes to thank Goto-san, and the SC22 secretariat for handling the meeting logistics.

The LRG also thanks DKUUG, Emblix, the Asia OSS Community, and the FSG OpenPrinting workgroup for their contributions.

Further, the LRG wishes to thank Messrs Stoughton, Kido, Litchfield, Simonsen, Anglin, So and Seng for their sterling work in so accurately catching and expressing the recommendations in their role as the drafting committee, and thanks the United Kingdom, Japan, USA, DKUUG, Canada, China, and Singapore for their time.

The LRG also thanks the lead Rapporteur, Mr Hill, for his diligence and guidance in getting us through the week with only one tasteless video clip.

The LRG further wishes to congratulate Mr Hill on the event of his birthday, and wishes him many happy returns.

By Acclamation