

INCOSE TECHNICAL BOARD
LIAISON ADVISORY STATEMENTS
(INCOSE-TA-2003-005-01)

Approved by the INCOSE Technical Board on May 29, 2003

A. Name of Liaison Effort - IEEE 1220 Harmonization with ISO/IEC 15288

B. INCOSE Liaison Representative – Lori Pajerek

C. INCOSE point of contact and participants -

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D. Description of proposed standard or liaison activity

Align IEEE 1220 with ISO/IEC 15288 so that the two standards may be used jointly without conflicts. The activity will require a number of changes of varying degree to both standards; these changes are planned to be addressed incrementally. The initial task for which this specific working group is responsible is to get IEEE Standard 1220 “fast-tracked” as an ISO Standard under the aegis of ISO/IEC JTC 1/SC 7/WG 7.

E. INCOSE's level of participation

For the initial phase, INCOSE has an advisory “review and comment” role only. The INCOSE liaison will be responsible for coordinating and consolidating INCOSE comments on the drafts of the planned revision to IEEE Standard 1220.

F. Justification, including relevance to INCOSE and its members

INCOSE has participated in a liaison role to the ISO/IEC/JTC1/SC7/WG7 organization for several years. A significant portion of the INCOSE membership is affected by contractual requirements to use IEEE 1220 in the course of doing business. Therefore it is in the interest of INCOSE members to have an opportunity to influence the future direction of the Standard. Furthermore, this activity enhances INCOSE’s role as a recognized and respected participant in Systems Engineering standards development.

G. Objectives satisfied or to be satisfied

The harmonization project will create a unified family of engineering life cycle standards, and is intended to bring IEEE 1220 and ISO/IEC 12207 under ISO/IEC 15288. Resolve existing discrepancies identified below:

1. Nomenclature for system architecture elements
2. Process/Activity/Task structure
3. Names and content of life cycle stages and

4. Terminology used, as well as variations in definitions of common terms
5. Prescription of documentation and reviews (significant variation)
6. Many processes of 15288 are not in the scope of 1220 (such as Validation).

H. Dependencies, risks, and issues

1. ISO fast-track process will be unsuccessful, which will result in IEEE 1220 not being released as an ISO Standard.
2. Parallel progress of the harmonization of ISO 15288 with ISO 12207 may result in additional “disconnects” between IEEE 1220 and ISO 15288, other than those already identified.

I. Anticipated schedule

Dec 2003 – Initial IEEE ballot version
Jan – Nov 2004 – Update and ballot cycles
Dec 2004 – Final version for ISO release

J. Relationship to existing/planned collaborations and other standards activities

The proposed activity is a preparatory step that will lay the initial groundwork for a larger ISO 15288 harmonization project planned by ISO/IEC/JTC1/SC7/WG7 over the next 3-5 years. INCOSE is also a participant in the harmonization of ISO 15288 with ISO 12207.

K. Relationship to INCOSE Technical Operating Plan, if any

Unknown

L. Expected Duration of Effort

Jan 2002 – Dec 2004

M. INCOSE privileges and other benefits (e.g. price discounts, name/logo on cover, etc.)

This liaison provides an opportunity to review and comment on drafts of the revised Standard. Copies of the draft and final versions may be provided to INCOSE members. Interim copies are unavailable to the general public.

N. Draft Joint Working Agreement (or plan for developing), as required

- N.1 Signatures
- N.2 Date signed
- N.3 Location of Agreement

O. Key Issues and INCOSE Advisories

1. Harmonization of 1220 and 15288 is planned by IEEE and ISO to occur in two distinct phases. The first is to “fast-track” IEEE 1220 through the ISO standards publication process. For this phase, only changes required to eliminate any overt contradictions between 1220 and 15288 will be addressed.

2 The second phase would be a much more extensive effort to align the system lifecycle, system hierarchy definition, process structure & definition, nomenclature and terminology across the two standards.

3. Recommendation of the INCOSE Standards TC is that Phase 2 of this harmonization effort (see item 2 above) should be combined with the upcoming harmonization effort being undertaken by ISO/IEC JTC 1/SC 7/WG 7 to harmonize ISO/IEC 15228 and ISO/IEC 12207 (software lifecycle std). IEEE 1220 and ISO/IEC 12207 should both be aligned as more detailed engineering process standards that are subordinate to the overall system lifecycle standard (15288).

This recommendation is a deviation from the current plans of ISO/IEC JTC 1/SC 7/WG7. The plan of record is to undertake two distinct harmonization projects, which will result in an ongoing game of catch-up as the three standards leapfrog one another. The position of the INCOSE Standards TC is that it would be preferable to execute the entire harmonization effort as a single combined project.

Approved by the INCOSE Technical Board William F. Mackey, Chairman

Date: May 29, 2003