ISO/IEC JTC 1/SGFS
Title: ISO/IEC JTC 1 Special Group on Functional
Standardization

Secretariat: NNI (Netherlands)

Title   : Liaison to ISO/IEC JTC1/SGFS: Contribution to SGFS on
OSE Taxonomy

Source   : EWOS

Status   : for discussion during the SGFS Plenary Meeting June 15-
19, 1992, Washington DC, USA

Note   :

To: **JTC1/SGFS**

From: **EWOS**

Date: 10 April 1992

Subject: **Contribution to SGFS on OSE Taxonomy** '

In SGFS N337, EWOS submitted its Technical Guide to Profiles
for the Open System Environment. Following the progression of
this work in SGFS at the June 1991 meeting, and at the
Authorised Subgroup meeting in Oct/Nov 1991, EWOS wishes to
reassert the general principles and methods outlined in that
document, and in addition, wishes to contribute some new
insights which derive from its continuing work programme in
this area. In an associated contribution (TA/92/93) EWOS is
presenting a more detailed, but still preliminary, view of the
required methodology for creating OSE Profiles.

EWOS is actively cooperating with OIW on the development of
OSE Profiling concepts and methods, but at this stage has not
progressed to the production of harmonised documents; hence
the contents of this contribution are those of EWOS alone.

Comments are keyed to clauses in SGFS N337 (EWOS/ETG 12)

1.2 **Audience**

Ignore the ITAEGS reference. In the spirit of the CEN/ISO
Vienna agreement, it is currently intended that there should
not be a separate European process for OSE profiles in the
style of M-IT-01/02.

This clause should also recognise the importance of
consultation with the other workshops in order to build
consensus and harmonisation of the approach to OSE profiles.

2.1/3.1 **Taxonomy of OSE Profiles**

User requirements:

This taxonomy must be based on an analytical examination of
the functions which meet the real requirements of users. Such
a method is being proposed by BSI/DISC in its Framework for
User Requirements (FUR). EWOS seeks to ensure that it includes
user interests in its OSE work, and is in contact with various
User-led groups, from which input to its work is obtained.

Open-endedness

This taxonomy must be capable of providing the means of categorising all conceivable profiles within the intended scope of Open Systems. In addition, the profile development methodology must support the content requirements of all such profiles.

Restriction of scope

This taxonomy is concerned with Generic profiles, which form the basis for subsequent definition, by users or by other standardisation groups, of specific profiles (e.g. a generic workstation profile can be used as basis for a financial institution's workstation). Hence this limits the scope of this taxonomy.

2.3 Profile Component Identification Method

EWOS believes that there is a need for a Framework for Technology Integration which will enable OSE Profiles to be created from a set of common components, selected according to a defined methodology. This will result in the creation of a coherent internal structure for a Profile, and consistency between profiles where appropriate. ETG12 Annex B (Component Identification) is an example of an early version of such a framework in action.

Work will continue, in order to refine the method to ensure that user requirements are accurately expressed in terms of the profile functionality. Definition of this framework could eventually be included in TR 10000-3. The associated contribution from EWOS (TA/92/93) describes latest thinking on the required method for developing and documenting OSE Profiles.

3.2/Anx A   OSE Taxonomy

EWOS proposes that the OSE Profile Taxonomy could subdivide into two distinct classes of "Base" and "Generic Environments", leaving open the possibility of a further class of "Industry Specific" environments (out of scope here, as noted under 2.1/3.1 above). The separate class for Base Environments (e.g. POBxx), might well have more than one candidate entry.

The need for multiplying base environments may not be very great, however, since commonality betwen profiles can be achieved by other means than defining distinct base profiles. (Use of common ISP parts for instance).

The resulting proposal for the OSE Profile Taxonomy is annexed to this contribution. As indicated in ETG12 clause 3.2, the detail of this will undergo change as a result of ongoing consultation, harmonisation and experience.

4. Conformance

POSIX standards are getting their own Test Assertions in future; this will help in assessing the conformance of individual components of a profile.

Conformance to an OSE Profile (i.e. the sum of its components) is an issue which will require further study; in the context of OSI Profiles, considerable work has been done in JTC1 SC21 WG1 on the extension of ISO/IEC 9646 to cover this; some similar work for OSE Profiles may be indicated.'

The extension towards Interoperability testing which is occurring for OSI Profiles will also have some relevance to OSE, including an element of proving practical portability of implementations.

Anx B.4   Attributes

The importance of well identified and specified attributes is that they steer the choice of related options in a consistent way across all profiles. The goal is that the use of a given attribute should secure a common level of function/capability across all profiles to which it is applied. Hence an attribute needs a free-standing definition of its own, as well as separate indications as to how it modifies the content of the individual profiles.

In the separate contribution on OSE Profiling Methodology, EWOS proposes an extension to the list of potential Attributes given in ETG12.

Preliminary proposals were made in SGFS N335 for a system of specifying OSI profile attributes; similar or related techniques could be adopted here.

Anx C.1   Interface Role

In this context, there is also a need to establish within JTC1 a common definition method for the components of APIs, to ensure ease of use and reuse in appropriate combinations within a profile.

Anx C.2   Evolution of the Taxonomy

The concept of taxonomy is such that it may be necessary to identify new taxonomies for significantly different classes of profiles rather than extending artificially the one currently being considered.

Anx E   References

Should be updated:

P1003.0 is at Draft 14 (Draft 15 in preparation)

APP - Issued text in April 91

TSG-1 Report is JTC1 N1335

Annex A Taxonomy of OSE Profiles

This Annex contains the Taxonomy of OSE Profiles as is currently perceived by EWOS. It should be noted however that the entries have only an informative nature, and that further user and supplier consultation is required before they can be regarded as correct and usable.

P   OSE Profiles

    POB Base Environment Profiles

        POB1 Generic Base Environment
        POB2 .... (to be extended if necessary)

    POE Generic Environment Profiles

        POE1 Work Station Environments
            POE10 Terminal Environment
            POE11 Personal Workstation Environment
            POE12 Professional Workstation Environment
        POE2 Utility Server Environments
            POE20 Electronic Message Serving Environment
            POE21 Directory Serving Environment
            POE22 Access Control Serving Environment
        POE3 Information Server Environments
            POE30 DBMS Serving Environment
            POE31 Document Serving Environment
        POE4 Transaction Processing Environments
            POE40 Simple TP Environment
            POE41 Enhanced TP Environment
        POE5 Real Time Environments
            POE50 Real Time Environment, seconds
            POE51 Real Time Environment, milli-seconds
        POE6 Super Computing Environments

Note: Such a profile taxonomy can be applied to stand-alone environments, communicating environments as well as to distributed environments. It may also be subject to extension by means of the addition of Attributes.