Title	:	Liaison Statement from JTC1/SC21/WG7 on ODP/OSE Profiling (SC21 N8035)
Source	:	JTC1/SC21
Status	:	Discussed during the SGFS Seoul 1993 meeting
Note	:	The response from SGFS is presented in SGFS N1017

Title: Liaison Statement to JTC 1/SG FS

Source: JTC 1/SC 21/ WG 7 meeting, Yokohama, 15-25 June 1993

1.   Introduction

This liaison statement is concerned with two issues:

- it identifies the need for liaison between the activity on OSE-profiles in SG FS and standardization for Open Distributed Processing (ODP);

- it informs SG FS of proposals to establish C-liaisons between SC 21/WG 7 and the Object Management Group (OMG) and X/Open in relation to its work on ODP and application program interfaces (APIs) respectively.

2.   OSE-profiles and ODP standardization

2.2.   Background

As a result of National Body input, the attention of the WG 7 meeting was drawn to the activity of SG FS on OSE profiles as presented in documents SG FS/N 817 (Third Working Draft of ISO/IEC/TR 10000-1.3, Framework and Taxonomy of ISPs - Part 1: General Principles and Framework) and SG FS/N 863 (Second Working Draft of ISO/IEC/TR 10000-3, Framework and Taxonomy of ISPs - Part 3: Principles and Taxonomy for Open System Environment Profiles). As a result, these documents were reviewed by the meeting, although the time available was limited. The meeting concluded, as a result of the review, that there were close relationships between the work of SG FS on Open System Environment (OSE) Profiles and work on ODP standardization, and that close liaison will be required between the two activities to ensure alignment between them and consistency in the results. The following section identifies issues on areas in which the relationships between the activities need to be considered.

2.2   Relationships

2.2.1 At the simplest level OSE profiling activity and ODP standardization are related by the fact that ODP standards will constitute a set of base standards that will be addressed by OSE profiles. It will be essential, therefore, at least to relate terminology and concepts, if not to align them. This requires consideration of terms that are defined and used both in TR 10000 and the RM-ODP. Examples are:

- portability,

- domain,

- environment,

- system and

- interface.

2.2.2 In addition to this level of concern, however, there are issues of conceptual and architectural significance. These issues derive from the primary objective of the OSE

activity, namely development of OSE-profiles that specify how base standards can be used to achieve interoperability of applications and portability of applications, people and data, and thus include support for system distribution.

2.2.3 While the OSE activity concerns the detailed specification of the *use* of base standards for system, the ODP activity is concerned with the *provision* of base standards to support system distribution. The RM-ODP defines a structure for the standards required and makes it possible both to identify relevant existing base standards and to define the requirements for new base standards. In relation to the base standards involved, this structure addresses the need for distributed system scalability identified in SG FS N 862, clause 5.1.8.

2.2.4 The ODP activity addresses the issue of interoperability through the definition of the concept of distribution transparencies. The most relevant transparencies in relation to interoperability are

- *access transparency*: which masks differences in data representation and invocation mechanisms for operations at interfaces - enabling interworking between heterogeneous computer systems;

- *location transparency*: which masks interface location (including the difference between local and remote invocations).

2.2.5 The ODP activity addresses the issue of portability by specification of

- relevant requirements on the local infrastructure;

- *migration transparency*: which masks relocation of an object from the object being relocated.

2.2.6 There is significant commonality, also, in the issues related to conformance. For conformance purposes the RM-ODP identifies four types of reference point. These correspond to types of interface that map directly on to the types of Application Platform interface identified in SG FS N862. These reference points are:

- Perceptual reference point, at which a human-computer interface can be established: for example, a perceptual reference point might be established in a graphics standard;

- Interworking reference point, at which a communication interface can be established between two systems: OSI standards are based on the interconnection of interworking reference points (the physical medium);

- Interchange reference point, at which an interface to an external physical storage medium can be established;

- Programmatic reference point, at which a programmatic interface can be established to allow access to a function; an interface at a programmatic reference point corresponds to the common notion of an API.

This work will need to consider statements of conformance for programmatic interfaces, and the relationship between multiple programmatic interfaces and between programmatic interfaces and other interfaces for an ODP component. These concerns will also arise for OSE profiles.

2.2.7 Finally, it should be noted that the RM-ODP provides concepts and rules for the specification of distributed systems that are relevant both to the specification of user requirements on the systems and for the specification of how those requirements are met.

These concepts and rules are defined in the RM-ODP by the *viewpoint languages* and their relevance to work on OSE profiles should be investigated.

3.   C-liaisons

3.1   Discussions are in progress to establish C-liaison status with SC 21 for the Object Management Group (OMG) and X/Open.

3.2   For the OMG this liaison would relate to the work of WG 7 on ODP standardization. It is expected to address:

- alignment between the architectural concepts governing the work of OMG and the concepts of the Reference Model of ODP;

- the applicability within the ODP architecture of functions specified by the OMG.

3.3   For X/Open this liaison would primarily relate to the work of the SC 21 SWG on API (Application Program Interface) standardization for the areas of standardization for which SC 21 is responsible. In this area the liaison is expected to address:

- alignment between the architectural concepts governing the work of X/Open on the specification APIs and the concepts proposed for SC 21 by the SWG;

- the applicability to SC 21 requirements of API specifications produced by X/Open.

The liaison will also expected to identify and address aspects of the work of WG 7 on ODP standardization relevant to the concerns of X/Open.