

# ISO/IEC JTC 1/SC 32 N 1142

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<b>SOURCE</b>	SC 32 Secretariat
<b>PROJECT NUMBER</b>	
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## ISO/IEC JTC1 SC32 N1142

(based on ISO/IEC JTC1 SC32 WG3 SIA064R1-Future DBL Items)

27 May 2004

### Title: Towards Identifying and Prioritising areas requiring improved Database Language Standards

Source: ISO/IEC JTC1 SC32 WG3

#### **Purpose:**

At the ISO/IEC JTC1 SC32 2004 meeting, the opening plenary, following discussion on an item raised by the Australian National Body, asked that construction of a resolution to request views from National Bodies on areas requiring standardisation within Database Languages, be considered.

#### **Text for inclusion in WG3 and SC32 Resolutions:**

1. Request SC32 to ask JTC1 to circulate a request for input on future areas of database language standardisation. The circulation should be to as wide a group within ISO National Bodies as possible, covering database users across many areas, including all IT areas and others where relevant. It would include Government, major industry sectors such as Banking, Health and others, major software producers, identifiable software communities, eCommerce and eGovernment initiatives. That is, groups having an interest database capability to support their activities, systems and standards.

The request will be based on this document (32N1142). The revised text will be delivered by 15 July 2004 for circulation to National Bodies and the groups identified above for a 3 month response period.

2. Request SC32 National Bodies and Working Groups, to provide input on future areas of database language standardisation.

#### **Background**

Beyond support for XML within SQL and minor improvements and corrections to the existing standards, the areas that WG3 should address next are not clear, and, given scarce resources, we need to be careful to address areas of greatest importance and relevance. Current database language user needs, requirements and positioning need to be identified, clarified and prioritized.

WG3 enjoys very strong contributions from the major database vendors and our standards have very a high level of acceptance in the marketplace. The work could benefit from broader engagement with database languages users and stakeholders through the ISO National Bodies.

#### **Draft material for documents supporting the Resolution:**

Given:

- Scarce resources
- Many possible new and emerging areas that could benefit from improved standard database language support. (see attached list)

ISO Database standardization activity would benefit from assistance in:

- Identifying candidate areas
- Prioritizing these; and
- Identifying resources to assist with the work. (users, system builders and others)

SC32 requests input from National Bodies, calling on their constituency of users, system builders and others, on:

1. Areas that would benefit from improved database support?  
Current and expected future areas of need? (possibly drawn from the list attached);
2. Specific examples, possibly specific scenarios, of the areas in 1 above; and
3. Stakeholders – particularly those with an interest in assisting the work

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Possible areas of activity include, but not limited to, the following:

- New capability within the “database engine”, likely to impact core SQL:
  - security (working within a security context external to the database, including various aspects - authentication, non-repudiation, identity issues, access control, ...);
  - interoperability between database systems and other systems
  - embedded transactions;
  - temporal support;
  - federated and grid database support;
  - data warehousing support (including transaction time support, real time warehousing);
  - enhanced XML support
  - Other ...
- New capability built on the “database engine”, less likely to impact core SQL:
  - data transfer and export/import support
  - enhanced support for specific areas – such as spatial, image, movies, ...
  - data warehousing support;
  - richer functionality for statistical methods, OLAP and Data Mining;
  - support for metadata registries and standards (including those from ISO SC32WG2 (the ISO 11179 family and related), ebXML and others);
  - support for new and emerging concepts, for example:
    - "data grids" and "information interoperability",
    - support required or implied by initiatives in eCommerce, eGovernment,

- Web content management and access,
- others...
- Other ...

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### **Database Languages – Current Terms of Reference**

1. To develop and maintain languages for the dynamic specification, maintenance and description of database structures and contents in multi-user environments. The specifications may include the data type, behaviour and any integrity constraints on the contents of the defined structures. The specifications may include mechanisms for the creation and generation of new data types and behaviours so as to support the specification of other international standards.
2. To provide additional support for the integrity of database systems through transaction commitment, recovery, and security facilities.
3. To develop and maintain languages which provide for the storage, access and manipulation of data in database structures by multiple concurrent users. These languages may be computationally complete and may contain features for the packaging and storage of modules and procedures in database structures.
4. To provide interfaces for the languages developed to other standard programming languages.
5. To provide interfaces or access to other standards describing data types, behaviour or database content to users of the languages developed.