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REPLACES: --

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BUSINESS PLAN FOR ISO/IEC JTC 1/SC32, Data Management and Interchange

PERIOD COVERED: September 2000 to August 2001

SUBMITTED BY: Bruce Bargmeyer, Chairman JTC 1/SC 32

1. MANAGEMENT SUMMARY:

1a CHAIRMAN'S REMARKS

When plenary dates for an SC and for JTC 1 are out of phase, the SC chairman's use of this section for updating JTC 1 on SC status is required as a means to reflect developments since the business plan was approved. This section may also be used for any other remarks the chairman believes pertinent in regards to the SC's Business Plan, its projects, opportunities, risks or new initiatives.

The SC 32 Plenary meeting ends the Friday before the JTC 1 committee meeting, so this business plan does not reflect the results of that meeting. It is expected that the meeting will be well attended and will continue the excellent progress described in this report.

1.1 JTC 1 SC32 STATEMENT OF SCOPE

JTC 1/ SC 32

Title: Data Management and Interchange

Area of Work: Standards for data management within and among local and distributed information systems environments. SC 32 provides enabling technologies to promote harmonization of data management facilities across sector-specific areas. Specifically, SC 32 standards include:

- 1) reference models and frameworks for the coordination of existing and emerging standards;
- 2) definition of data domains, data types and data structures, and their associated semantics;
- 3) languages, services and protocols for persistent storage, concurrent access, concurrent update and interchange of data;
- 4) methods, languages, services and protocols to structure, organize and register metadata and other information resources associated with sharing and interoperability, including electronic commerce.

JTC 1/ SC 32/RG 01

Title: Reference Model for Data Management Maintenance

Area of Work: Maintenance of ISO/IEC 10032, Reference Model of Data Management, and enhancements to it as may be required by SC 32.

JTC 1/ SC 32/WG 01

Title: Open-edi

Area of Work: Standardization in the field of generic information technology standards for open electronic data interchange needed to attain global interoperability among the information technology systems used by organizations. Such interoperability is viewed from both business and information technology perspectives.

Within this context the scope includes:

- 1 methodology and framework for identification and modelling of business activities through business scenarios and their components, such as roles, information bundles, and semantic components;
- 2 identification and specification of formal description techniques for describing classes of business requirements and their contextual and semantic specifications;
- 3 identification and specification of formal description techniques for developing business scenarios and their components;
- 4 identification and specification of information technology services and service interfaces for accomplishing business transactions;
- 5 identification and specification of facilities to manage business scenarios and their components.

Note: Priority is on work required to support the needs of electronic commerce, electronic administration, electronic business, etc. The basis of work is the Open-edi Reference Model (ISO/IEC 14662).

JTC 1/ SC 32/WG 02

Title: Metadata

Area of Work: To develop and maintain standards that facilitate specification and management of metadata. Use of these standards will enhance the understanding and sharing of data, information and processes to support, for example, interoperability, electronic commerce and component-based development. The scope shall include:

- a) a framework for specifying and managing metadata;
- b) specification and management of data elements, structures and their associated semantics;
- c) specification and management of value domains, such as classification and code schemes;
- d) specification and management of data about processes and behaviour;
- e) facilities to manage metadata, for example: data dictionaries, repositories, information resource dictionary systems, registries and glossaries;
- f) facilities to exchange metadata, including its semantics, over the Internet, intranets and other media.

JTC 1/ SC 32/WG 03

Title: Database Languages

Area of Work:

1. To develop and maintain languages for the dynamic specification, maintenance and description of database structures and contents in multi-user and multi-server environments. The specifications may include the data types, behaviours 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 develop and maintain languages that 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.
3. To provide interfaces for the languages developed to other standard programming languages.
4. To provide interfaces or access to other standards describing data types, behaviours or database content to users of the languages developed.

JTC 1/ SC 32/WG 04

Title: SQL Multimedia & Application Packages

Area of Work: To specify packages of abstract data types for use in various application areas. Specify each package of abstract data type definitions using the facilities for user-defined type provided in the Database Language SQL/Foundation. This should include packages such as Full-Text, Spatial, Still Image, Still Graphic, Animation, Full Motion Video, Audio, Seismic, and Music.

JTC 1/ SC 32/WG 05

Title: Database Access and Interchange

Area of Work: Standards to facilitate interworking of applications and databases that may be located on different sites. These standards relate principally to communications and management data. They are complementary to and dependent on standards for database languages. The activities include the analysis of distributed database applications and requirements, definition of system models, communication APIs and protocols for interworking between client systems and one or more server systems; the systems may be on different hardware, with software from different suppliers.

1.2 PROJECT REPORT

SC 32/RG 01 Reference Model for Data Management Maintenance

1.32.01.01.00.00 ISO/IEC 10032:1995
Information technology - Reference Model of Data Management

SC 32/WG 01 Open-edi

1.32.20.01.00.00 ISO/IEC AWI 18038
Information technology - Identification and Mapping of Various Categories of Jurisdictional Domains
Target Dates: CD 2001-10 FCD 2002-07 DIS 2002-12 IS 2003-06

- 1.32.31.01.01.00 ISO/IEC FCD 15944-1
Information technology - Business Agreement Semantic Descriptive Techniques Part 1: Business Operational Aspects of Open-edi for Implementation
Target Dates: CD 1999-09 FCD 2000-12 DIS 2001-12 IS 2002-06
- 1.32.31.01.02.00 ISO/IEC AWI 15944-2
Information technology - Business Agreement Semantic Descriptive Techniques Part 2: Registration of Scenarios and their Components
Target Dates: CD 2001-06 FCD 2002-06 DIS 2003-09 IS 2004-03
- 1.32.31.01.03.00 ISO/IEC AWI 15944-3
Information technology - Business Agreement Semantic Descriptive Techniques Part 3: Open-edi Description Techniques
Target Dates: CD 2001-12 FCD 2002-06 DIS 2003-09 IS 2004-03
- 1.32.30.01.00.00 ISO/IEC 14662:1997
Information technology - Open-Edi Reference Model

SC 32/WG 02 Metadata

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- 1.32.10.02.00.00 ISO/IEC AWI 5218
Information technology - Representation of human sexes (Revision of ISO 5218:1977)
Target Dates: CD 2001-04 FCD 2001-04 DIS 2002-02 IS 2002-07
- 1.32.15.02.01.00 ISO/IEC AWI 11179-1
Information Technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 1: Framework for the specification and standardization of administered items (Revision of ISO/IEC 11179-1:1999)
Target Dates: CD 2001-10 FCD DIS IS
- 1.32.15.02.02.00 ISO/IEC AWI 11179-2
Information technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 2: Classification for administered items (Revision of ISO/IEC 11179-2:2000)
Target Dates: CD 2002-05 FCD DIS IS
- 1.32.15.02.03.00 ISO/IEC FCD 11179-3
Information technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 3, Registry Metamodel (MDR3) (Revision of ISO/IEC 11179-3:1994)
Target Dates: CD 2001-05 FCD 2001-11 DIS 2002-03 IS 2002-06
- 1.32.15.02.04.00 ISO/IEC AWI 11179-4
Information Technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 4: Rules and guidelines for the formulation of data definitions (Revision of ISO/IEC 11179-4:1995)
Target Dates: CD 2001-10 FCD DIS IS
- 1.32.15.02.05.00 ISO/IEC WD 11179-5
Information Technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 5: Naming and identification principles for administered items (Revision of ISO/IEC 11179-5:1995)
Target Dates: CD 2001-04 FCD DIS IS

- 1.32.15.02.06.00 ISO/IEC AWI 11179-6
Information Technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 6:
Registration of administered items (Revision of ISO/IEC 11179-6:1997)
Target Dates: CD 2001-04 FCD DIS IS
- 1.32.16.01.00.00 ISO/IEC FPDTR 20943-1
Information technology - Data management and interchange - Procedures for achieving metadata
registry (Mdr) content consistency - Part 1: Data elements
Target Dates: CD 2001-05 FCD 2001-11 DIS 2002-03 IS 2002-06
- 1.32.16.01.02.00 ISO/IEC AWI 20943-2
Information technology - Procedure for Achieving Data Registry Content Consistency - XML
Structured Data
Target Dates: CD 2002-05 FCD DIS IS
- 1.32.16.01.03.00 ISO/IEC AWI 20943-3
Information technology - Procedure for Achieving Data Registry Content Consistency - Value
Domains
Target Dates: CD 2001-10 FCD DIS IS
- 1.32.17.01.00.00 ISO/IEC AWI 20944
Information technology - Metadata Access Service
Target Dates: CD 2001-10 FCD DIS IS
- 1.32.18.01.00.00 ISO/IEC WD 18022
Information technology - IT enablement of coded domains
Target Dates: CD 2001-06 FCD 2001-10 DIS 2002-07 IS 2002-10
- 1.32.21.02.00.00 ISO/IEC AWI 15452
Information technology - Specification of Data Value Domain (revision of TR 15452:2000)
Target Dates: CD 2001-10 FCD DIS IS
- 1.32.02.02.00.00 ISO TR 9007:1987
Information processing systems - Concepts and Terminology for the Conceptual Schema and the
Information Base
- 1.32.10.01.00.00 ISO 5218:1977
Information interchange - Representation of human sexes
- 1.32.11.01.00.00 ISO/IEC TR 9789:1994 type 3
Information technology - Guidelines for the organization and representation of data elements for data
interchange - Coding methods and principles
- 1.32.14.02.01.00 ISO/IEC 6523-1:1998
Information technology - Structure for the identification of organizations and organization parts - Part
1: Identification of organization schemes
- 1.32.14.02.02.00 ISO/IEC 6523-2:1998
Information technology - Structure for the identification of organizations and organization parts - Part
2: Registration of organization identification schemes
- 1.32.15.01.01.00 ISO/IEC 11179-1:1999
Information technology - Specification and standardization of data elements - Part 1: Framework for
the specification and standardization of data elements

- 1.32.15.01.02.00 ISO/IEC 11179-2:2000
Information technology - Specification and standardization of data elements - Part 2: Classification for data elements
- 1.32.15.01.03.00 ISO/IEC 11179-3:1994
Information technology - Specification and standardization of data elements - Part 3: Basic attributes of data elements
- 1.32.15.01.04.00 ISO/IEC 11179-4:1995
Information technology - Specification and standardization of data elements - Part 4: Rules and guidelines for the formulation of data definitions
- 1.32.15.01.05.00 ISO/IEC 11179-5:1995
Information technology - Specification and standardization of data elements - Part 5: Naming and identification principles for data elements
- 1.32.15.01.06.00 ISO/IEC 11179-6:1997
Information technology - Specification and standardization of data elements - Part 6: Registration of data elements
- 1.32.19.01.00.00 ISO/IEC 14957:1996
Information technology - Representation of data elements values: Notation of the format
- 1.32.21.01.00.00 ISO/IEC TR 15452:2000
Information technology - Specification of Data Value Domain
- 1.32.40.01.00.00 ISO/IEC 10027:1990
Information technology - Information Resource Dictionary System (IRDS) Framework
- 1.32.41.01.00.00 ISO/IEC 10728:1993
Information technology - Information Resource Dictionary Systems (IRDS) Services Interface
- 1.32.41.01.00.01 ISO/IEC 10728 :1993/Amd 1:1995
Information technology - Information Resource Dictionary System (IRDS) Service Interface - Amendment 1: C Language Binding
- 1.32.41.01.00.02 ISO/IEC 10728 :1993/Amd 2:1996
Information technology - Information Resource Dictionary System (IRDS) Service Interface - Amendment 2: Ada language binding
- 1.32.41.01.00.03 ISO/IEC 10728 :1993/Amd 3:1998
Information technology - Information Resource Dictionary System (IRDS) Service Interface - Amendment 3: CORBA IDL Binding
- 1.32.41.01.00.04 ISO/IEC 10728 :1993/Amd 4:1998
Information technology - Information Resource Dictionary System (IRDS) Service Interface - Amendment 4: Remote Procedure Call IDL Binding
- 1.32.58.01.03.00 ISO/IEC 13238-3:1998
Information technology - Data Management Export/Import Facilities - Part 3: Export/Import Facilities for IRDS

SC 32/WG 03 Database Languages

- 1.32.03.05.01.00 ISO/IEC CD 9075-1
Information technology - Database Languages - SQL - Part 1: Framework (SQL/Framework)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.02.00 ISO/IEC CD 9075-2
Information technology - Database Languages - SQL - Part 2: Foundation (SQL/Foundation)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.03.00 ISO/IEC CD 9075-3
Information technology - Database Languages - SQL - Part 3: Call-Level Interface (SQL/CLI)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.04.00 ISO/IEC CD 9075-4
Information technology - Database Languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.07.00 ISO/IEC WD 9075-7
Information technology - Database Language SQL - Part 7: Temporal (for SQL:200n)
Target Dates: CD 2001-11 FCD 2001-11 DIS 2002-08 IS 2002-12
- 1.32.03.05.09.00 ISO/IEC CD 9075-9
Information technology - Database Languages - SQL - Part 9: Management of External Data
(SQL/MED)
Target Dates: CD 2001-02 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.10.00 ISO/IEC CD 9075-10
Information technology --Database Languages - SQL - Part 10: Object language bindings (SQL/OLB)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.11.00 ISO/IEC CD 9075-11
Information technology --Database Languages - SQL - Part 11: Information and Definition Schemas
(SQL/Schemata)
Target Dates: CD 2001-01 FCD 2001-08 DIS 2002-06 IS 2002-10
- 1.32.03.05.12.00 ISO/IEC AWI 9075-12
Information technology --Database Language SQL - Part 12: Replication (for SQL:200n)
Target Dates: CD 2001-05 FCD 2001-11 DIS 2002-08 IS 2002-12
- 1.32.03.05.13.00 ISO/IEC FCD 9075-13
Information technology --Database Language SQL - Part 13: SQL/JRT (for SQL:200n)
Target Dates: CD FCD 2001-04 DIS 2002-06 IS 2002-10
- 1.32.03.05.14.00 ISO/IEC WD 9075-14
Information technology --Database Language SQL - Part 14: SQL/XML (for SQL:200n)
Target Dates: CD FCD 2001-07 DIS 2002-06 IS 2002-10
- 1.32.03.04.01.00 ISO/IEC 9075-1:1999
Information technology - Database Language SQL - Part 1: Framework
- 1.32.03.04.01.01 ISO/IEC FDAM 9075 : Amd 1
Information technology- Database languages SQL - Amendment 1: SQL/OLAP (for SQL:1999)
- 1.32.03.04.02.00 ISO/IEC 9075-2:1999
Information technology - Database Language SQL - Part 2: Foundation (SQL:1999)

- 1.32.03.04.03.00 ISO/IEC 9075-3:1999
Information technology - Database Language SQL - Part 3: Call-Level Interface
- 1.32.03.04.04.00 ISO/IEC 9075-4:1999
Information technology - Database Language SQL - Part 4: Persistent Stored Modules
- 1.32.03.04.05.00 ISO/IEC 9075-5:1999
Information technology - Database Language SQL - Part 5: Language Bindings
- 1.32.03.04.09.00 ISO/IEC 9075-9:2001
Information technology - Database Language SQL - Part 9: Management of External Data
- 1.32.03.04.10.00 ISO/IEC 9075-10:2000
Information technology --Database Language SQL - Part 10: Object language bindings (for SQL:1999)
- 1.32.03.04.99.00 ISO/IEC 9075:1999/Cor 1
Information technology- Database languages - SQL - Technical Corrigendum 1 for SQL:1999/Cor 1:2000

SC 32/WG 04 SQL Multimedia & Application Packages

- 1.32.04.01.06.00 ISO/IEC FCD 13249-6
Information technology - Database languages - SQL Multimedia and Application Packages - Part 6: Data Mining
Target Dates: CD 2000-12 FCD 2001-07 DIS 2002-04 IS 2002-08
- 1.32.04.02.01.00 ISO/IEC AWI 13249-1
Information technology - SQL Multimedia and Application Packages - Part 1: Framework 2nd ed.
Target Dates: CD 2001-05 FCD 2001-07 DIS 2002-04 IS 2002-08
- 1.32.04.02.02.00 ISO/IEC CD 13249-2
Information technology - SQL Multimedia and Application Packages - Part 2: Full-Text (Revision of ISO/IEC DIS 13249-2)
Target Dates: CD 2001-06 FCD 2001-12 DIS 2002-09 IS 2002-12
- 1.32.04.02.03.00 ISO/IEC CD 13249-3
Information technology - SQL Multimedia and Application Packages - Part 3: Spatial 2nd Edition
Target Dates: CD 2001-06 FCD 2001-12 DIS 2002-09 IS 2002-12
- 1.32.04.02.05.00 ISO/IEC CD 13249-5
Information technology - SQL Multimedia and Application Packages - Part 5: Still Image 2nd
Target Dates: CD 2001-06 FCD 2001-12 DIS 2002-09 IS 2002-12
- 1.32.04.01.01.00 ISO/IEC13249-1:2000
Information technology - SQL Multimedia and Application Packages - Part 1: Framework
- 1.32.04.01.02.00 ISO/IEC13249-2:2000
Information technology - SQL Multimedia and Application Packages - Part 2: Full -Text
- 1.32.04.01.03.00 ISO/IEC 13249-3:1999
Information technology - SQL Multimedia and Application Packages - Part 3: Spatial
- 1.32.04.01.05.00 ISO/IEC 13249-5:2001
Information technology - SQL Multimedia and Application Packages - Part 5: Still Image

SC 32/WG 05 Database Access and Interchange

1.32.05.03.00.00	ISO/IEC FCD 9579 edition 3							
	Information technology - Remote database access for SQL (RDA/SQL) - Edition 3 (for SQL 1999)							
<i>Target Dates:</i>	CD	FCD	1998-09	DIS	2000-12	IS	2001-06	
1.32.05.03.00.01	ISO/IEC CD 9579 ed 3 amd 1							
	Information technology - Remote Database Access for SQL: XML Encoding Amendment to Edition 3							
<i>Target Dates:</i>	CD	2001-06	FCD	2001-12	DIS	2002-10	IS	2003-02
1.32.05.03.00.02	ISO/IEC CD 9579 ed 3 amd 2							
	Information technology - Remote Database Access for SQL: Support for SQL/MED Amendment 2 to Edition 3							
<i>Target Dates:</i>	CD	2001-12	FCD	2002-07	DIS	2002-12	IS	2003-02
1.32.05.04.00.00	ISO/IEC CD 9579 ed 4							
	Information technology - Remote Database Access for SQL: (RDA/SQL). Edition 4							
<i>Target Dates:</i>	CD	2000-10	FCD	2001-04	DIS	2001-10	IS	2002-02
1.32.53.01.02.00	ISO/IEC CD 20606-1							
	Information technology - Data Management and Interchange – Authorization and Audit							
<i>Target Dates:</i>	CD	FCD	2001-04	DIS	2001-10	IS	2002-02	
1.32.53.01.03.00	ISO/IEC CD 20606-2							
	Information technology - Data Management and Interchange - Distribution Schema							
<i>Target Dates:</i>	CD	2000-05	FCD	DIS	IS			
1.32.53.01.04.00	ISO/IEC AWI 20606-3							
	Information technology - Data Management and Interchange - Encompassing Transaction							
<i>Target Dates:</i>	CD	2000-10	FCD	2001-04	DIS	2001-10	IS	2002-02
1.32.58.01.01.00	ISO/IEC FCD 13238-1							
	Information technology - Data Management Export/Import Facilities - Part 1: Standardization Framework							
<i>Target Dates:</i>	CD	1997-09	FCD	2000-10	DIS	2000-11	IS	2001-09
1.32.05.02.00.00	ISO/IEC9579:2000 ed 2							
	Information technology - Remote database access for SQL (RDA/SQL). Edition 2.							

1.3 COOPERATION AND COMPETITION

A complete listing of SC 32 liaisons is listed in the following tables. SC 32 is continually reevaluating its liaisons and assessing areas of internal and external cooperation and competition. SC 32 has requested JTC 1 to remove the liaisons that have not expressed an interest in the work of SC 32.

Internal Liaison Membership

CEN/ISSS EC	Information Society Standardization System
CEN/ISSS MM	Information Society Standardization System
CEN/TC 310 AMT	Advanced Manufacturing Technologies
IEC 93	Design Automation
ISO/IEC JTC 1/SC 2	Coded character sets
ISO/IEC JTC 1/SC 6	Telecommunications and information exchange between systems
ISO/IEC JTC 1/SC 7	Software Engineering
ISO/IEC JTC 1/SC 7/WG 11	Software engineering/Life cycle management
ISO/IEC JTC 1/SC 22	Programming languages
ISO/IEC JTC 1/SC 22/WG 20	Programming languages/Internationalization
ISO/IEC JTC 1/SC 24	Computer Graphics and Image Processing
ISO/IEC JTC 1/SC 25/WG 1	Home Electronic Systems
ISO/IEC JTC 1/SC 27	IT Security Techniques
ISO/IEC JTC 1/SC 29	Coding of audio, picture, multimedia and hypermedia information
ISO/IEC JTC 1/SC 31	Automatic identification and data capture techniques
ISO/IEC JTC 1/SC 34	Document Description and Processing Languages
ISO/IEC JTC 1/SC 35	User Interfaces
ISO/IEC JTC 1/SC 36	Information Technology for Learning, Education & Training
ISO/TC 12	Quantities, units, symbols, conversion factors
ISO/TC 23/SC 19	Tractors and Machinery for agriculture and forestry/Agricultural electronics
ISO/TC 37	Terminology (principles and coordination)
ISO/TC 37/SC 3	Terminology/Computer Applications
ISO/TC 46	Information and documentation
ISO/TC 46/SC 3	Information and documentation/ Terminology
ISO/TC 46/SC 4	Information and documentation/Computer applications
ISO/TC 46/WG 2	Information and documentation/Coding of country names and related entities
ISO/TC 68	Banking, securities and other financial services
ISO/TC 68/SC 2	Banking, securities and other financial services/ Security management
ISO/TC 154	Documents and data elements in administration, commerce and industry
ISO/TC 184	Industrial automation systems and integration
ISO/TC 184/SC 4	Industrial automation systems and integration/ Industrial data
ISO/TC 204	Transport Information and Control Systems
ISO/TC 211	Geographic information/Geomatics
ISO/TC 215	Healthcare Informatics

External Liaison Membership Category - A

INTELSAT	International Telecommunications Satellite Organization
ISBT	International Society of Blood Transfusion
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
SITA	Societe Internationale de Telecommunications Aeronautiques (Airline Telecommunications & Information)
UN/ECE/CEFACT	UN/Economic Commission for Europe/CEFACT
UNCTAD	United Nations Conference of Trade and Development

External Liaison Membership Category - B

CEPT	European Conference of Postal and Telecommunications Administrations
CERN	European Organization for Nuclear Research
CISAC	International Confederation of Societies of Authors and Composers
ECMA	An International Europe-based Industry Association for Standardizing Information and Communications
ESA	European Space Agency
ETDE	Energy Technology Data Exchange
EWICS	European Workshop on Industrial Computer Systems
IFIP	International Federation for Information Processing
IPTC	International Press Telecommunications Council
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UNESA	UN-Under-Secretary for Economic and Social Affairs
UPU	Universal Postal Union
WIPO	World Intellectual Property Organization
WMO	World Metrological Organization

External Liaison Membership Category - C

DCMI	Dublin Core Metadata Initiative
EXPERTNET/SA	ExpertnetSA MEDSEC (Health Care Security and Privacy in the Information Society)
IEEE LTSC	Learning Technology Standards Committee
OG	Open Group
OGC	Open GIS Consortium
OMG	Object Management Group
W3C	World Wide Web Consortium

2.0 PERIOD REVIEW

Excellent progress has been made in developing SQL, SQL MM, RDA, Open-Edi, Metadata Registry standards, and we expect that progress to continue in the future. Excellent progress has been made in developing SQL. The remaining parts of the SQL:1999 standards have been completed. An aggressive schedule for the next complete revision of ISO/IEC 9075 has been set with a target end date of 1st quarter 2003.

2.1 MARKET REQUIREMENTS

Market requirements for SC 32 standards are driven by the rapid pace of hardware and software advancement as well as by the explosive growth of Internet/Intranet/Extranet applications. These drive a stream of market requirements that are addressed by SC 32 standards for data management and interchange, including metadata management. The data management market continues to grow rapidly in line with the geometric increase in the volume of data stored and served. Technologies such as XML provide some competition to SC 32 standards, but also offer large opportunities to reach new markets by accommodating the new technologies or by taking a lead in collaborative development of the new technologies. SC 32 members are deeply involved in development of W3C XML recommendations (e.g., XML-Schema and XML-Query) and it would be desirable to position SC 32 as the appropriate JTC 1 committee for progressing these W3C recommendations to become ISO standards.

An SC 32 study period has found an increasing market demand for semantics management. This is needed for data in databases, EDI messages, text in documents (which may be stored in databases), etc. While there are several ISO standards for various terminology content and structure, there is little connection between those standards and their potential use for data management and interchange. SC 32 is exploring the market requirements for semantics management and the existing standards in order to articulate and then fill the unmet need.

Users are driving the market demand for metadata registries that describe the structure and meaning data. Major organizations are implementing metadata registries according to SC 32 standards and in the process are creating demand for extensions and broader coverage. This work is especially driven by the public access requirements of users and by market forces requiring the capability to share metadata between organizations.

The market demand for SQL database products remains strong. The clear acceptance of the new SQL:1999 standards by the database vendors is very encouraging. The development of new parts and new features within the 9075 family of standards continues to be driven by perceived market priorities; the effort applied and the scheduling of the various parts has been adjusted accordingly.

Market demand of EDI and electronic commerce products grows as firms struggle to move into the electronic marketplace. Standards for EDI functions are necessary to facilitate this demand. The SC 32 work related to Open edi work and metadata registries is supporting JTC 1 involvement with the ISO IEC UN/ECE MoU Management Group.

Each part of SQL/MM standards is based on explicit requirements from a domain market. Especially, SQL/MM Part 2: Spatial specifying Spatial Data Management received much attention from TC 204, TC 211, and OGC (Open GIS Consortium) and is being developed under close coordination with TC 211 and OGC. Thus, we believe that our standards meet real market requirements.

2.2 ACHIEVEMENTS

The following projects have completed or are in Stage 5 – Publication

- 1.32.03.04.09.00 ISO/IEC 9075-9:2001 Information technology - Database Language SQL - Part 9: Management of External Data
- 1.32.03.04.10.00 ISO/IEC 9075-10:2000 Information technology --Database Language SQL - Part 10: Object language bindings (for SQL:1999)
- 1.32.04.01.01.00 ISO/IEC13249-1:2000 Information technology - SQL Multimedia and Application Packages - Part 1: Framework
- 1.32.04.01.02.00 ISO/IEC13249-2:2000 Information technology - SQL Multimedia and Application Packages - Part 2: Full -Text
- 1.32.04.01.05.00 ISO/IEC 13249-5:2001 Information technology - SQL Multimedia and Application Packages - Part 5: Still Image

The following projects are completing Stage 4 – Approval Stage by being submitted to ITTF for final vote.

The following project completed Stage 3 – Committee Stage with FCD ballot

- 1.32.31.01.01.00 ISO/IEC FCD 15944-1 Information technology - Business Agreement Semantic Descriptive Techniques Part 1: Business Operational Aspects of Open-edi for Implementation
- 1.32.03.05.13.00 ISO/IEC FCD 9075-13 Information technology --Database Language SQL - Part 13: SQL/JRT (for SQL:200n)
- 1.32.58.01.01.00 ISO/IEC FCD 13238-1 Information technology - Data Management Export/Import Facilities - Part 1: Standardization Framework

The following project progressing Stage 3 – Committee Stage with FCD ballot

- 1.32.15.02.03.00 ISO/IEC FCD 11179-3 Information technology -- Data Management and Interchange -- Metadata Registries (MDR) - Part 3, Registry Metamodel (MDR3)
- 1.32.16.01.00.00 ISO/IEC FPDTR 20943-1 Information technology - Data management and interchange - Procedures for achieving metadata registry (Mdr) content consistency - Part 1: Data elements
- 1.32.04.01.06.00 ISO/IEC FCD 13249-6 Information technology - Database languages - SQL Multimedia and Application Packages - Part 6: Data Mining

The following project is progressing in Stage 3 – Committee Stage

- 1.32.03.05.01.00 ISO/IEC CD 9075-1 Information technology - Database Languages - SQL - Part 1: Framework (SQL/Framework)
- 1.32.03.05.02.00 ISO/IEC CD 9075-2 Information technology - Database Languages - SQL - Part 2: Foundation (SQL/Foundation)
- 1.32.03.05.03.00 ISO/IEC CD 9075-3 Information technology - Database Languages - SQL - Part 3: Call-Level Interface (SQL/CLI)
- 1.32.03.05.04.00 ISO/IEC CD 9075-4 Information technology - Database Languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM)
- 1.32.03.05.09.00 ISO/IEC CD 9075-9 Information technology - Database Languages - SQL - Part 9: Management of External Data (SQL/MED)
- 1.32.03.05.10.00 ISO/IEC CD 9075-10 Information technology --Database Languages - SQL - Part 10: Object language bindings (SQL/OLB)
- 1.32.03.05.11.00 ISO/IEC CD 9075-11 Information technology --Database Languages - SQL - Part 11: Information and Definition Schemas (SQL/Schemata)
- 1.32.04.02.02.00 ISO/IEC CD 13249-2 Information technology - SQL Multimedia and Application Packages - Part 2: Full-Text
- 1.32.04.02.03.00 ISO/IEC CD 13249-3 Information technology - SQL Multimedia and Application Packages - Part 3: Spatial 2nd Edition

2.3 RESOURCES

Adequate resources are currently available for all Database Languages (WG 3) projects.

3.0 FOCUS NEXT WORK PERIOD

SC 32 has refined its program of work to ensure that it is focusing on those standards that will meet market requirements. SC 32 plans to continue to focus on developing standards for SQL, SQL/MM, Open edi and data semantics. SQL work is expected to be particularly active. The metadata registry market is becoming active with implementations of ISO/IEC 11179.

Database Languages (WG 3) work is active with the focus on a completely revised set of ISO/IEC 9075 parts as well as two new parts addressing more Java support and XML support.

The Open-Edi (WG 1) is concentrating on their ISO/IEC 15944-1 Information technology - Business Agreement Semantic Descriptive Techniques Part 1: Business Operational Aspects of Open-edi for Implementation and ISO/IEC 18038 Identification, mapping and IT-enablement of existing standards for widely used encodable value domains. A key characteristic of commerce world-wide is that it makes extensive use of enumerated lists, code sets, etc. representing possible choices of common aspects in business transactions. The problem is that most of these code sets in use world-wide are paper-based and, even if available in electronic form, lack a computer-processable version. The objective of this standardization work is (1) the development of a tool to facilitate the creation of IT-enabled versions of existing sets of "codes representing X", and (2) to do so, in a manner which will support localization and multilingual requirements of the marketplace.

The Metadata Working Group (WG 2) is progressing the metadata registries with revisions to the ISO/IEC 11179 family of metadata registry standards. Part 3 of ISO/IEC 11179, sent out for FCD ballot, is being revised to incorporate a structure of a metadata registry. Technical reports on metadata registry content are progressing. The content TR addresses the exchange of metadata among ISO/IEC 11179-based registries that depends not only on standard-conforming software, but also on contents that are compatible across registries. The goal of this project is to produce Technical Reports that will promote a common understanding of the content of metadata registry data elements so that they can be shared among registries. The intent is to provide guidance by example in registering data elements. WG 2 intends to recommend using XML for accessing and interchanging information in 11179 conformant data registries. We expect that specific XML tags and data structures will be algorithmically derived from the normative UML data model specified in 11179 part 3. The Object Management Group (OMG) has already adopted a standard for XMI (XML Model Interchange), which we expect to recommend as one mechanism for such algorithmic derivation of XML representation from UML models. Work is also underway to foster interoperability between ISO/IEC 11179 metadata registries, XML registries, Universal Description, Discovery and Integration (UDDI) registries, database catalogs, ontology registries and CASE tool repositories. The SC 32 work is positioned to meet the deeper semantic management aspects of data management and interchange.

3.1 DELIVERABLES:

See section 1.2 for those projects with upcoming target dates.

3.2 STRATEGIES:

SC 32 is focused on progressing its program of work as quickly and efficiently as possible. It is important that the committee keep its focus on meeting market requirements, and emphasize new projects that have well-defined, concrete objectives that are market driven.

The SC 32 management approach is that everything that can be delegated to a WG, per JTC 1 directives, will be delegated to the WG along with the relevant authority and responsibility. The SC does not impose any additional management overhead. SC 32 Plenary meetings accomplish those tasks required by the JTC 1 directives in as brief a time as possible. Discussions are invited during a tutorial meeting and anytime outside of Plenary. All contentious issues are identified in advance and groups appointed to resolve the issue and prepare a recommendation before the Plenary. This strategy is intended to make the WGs as productive as their members can be.

WG 2 has initiated electronic Working Group meetings. WG3 has had one completely electronic-WG meeting and a completely electronic-continuation-editing meeting in order to progress the work as fast as possible.

3.2.1 RISKS

SC 32 is the result of JTC 1 creating a new Technical Direction on Data Management and Interchange, and is a combination of three committees with different traditions, work programs and personalities. Each of these three groups had their own priorities, and different strategies for achieving their objectives. During the first meetings, SC 32 successfully formulated a new working structure, scope and title. Considerable progress was made in identifying and establishing critical inter- and intra-group understanding and liaisons. While the first priority of the participants was to progress the standards proposals that came into the re-engineered SC 32, current attention is turning to developing new standards that cut across the original organizational lines. Considerable effort is being given to avoid isolated work within the WGs. At current SC 32 meetings, each WG gives a tutorial on its work to the full committee.

There is always the risk that new project could be initiated that does not have clear objectives and concrete specifications. If this occurs, SC 32 will dilute its focus and create incentive to produce important standards outside of SC 32 and JTC 1.

Overlapping scope of projects is an area that needs to be continually monitored and controlled. Changes in market requirements and ability to schedule plenary sessions at the appropriate moment may cause some perturbation in the work schedules.

TC 211 is now progressing OGC's Simple Feature Access SQL (SFA SQL). SFA SQL can be regarded as mere subset of SQL/MM Part 2: Spatial. Their aim is quick adaptation of SFA SQL specification under current DBMS environments. The next edition of SFA SQL should coincide with SQL/MM Part 2. However, if we lose technology leadership, we may lose control. Therefore, rapid development of the next edition is crucial factor of future success.

If SC 32 does not pursue its work aggressively, risks exist that essential capabilities will not be available in the marketplace to support important functions, or that the marketplace will produce multiple incompatible solutions in areas that common approaches and interoperability are essential to users.

The delegation of authority and responsibility to the WGs stands in contrast to the working of some of the SC/WG relationships that came into SC 32. This management style makes some participants

uncomfortable, since it limits discussion time in Plenary meetings. There is a risk of missing some viewpoints that might be expressed in longer Plenary meetings.

SC 32 continues to have funding support problems for the Secretariat. Funds have been provided in limited increments without any long-term provision for continuation.

3.2.2 OPPORTUNITIES

The Internet, electronic commerce, semantics management, object technologies, and XML represent major areas of opportunity where market forces are creating demand for SC 32 standards. We will continue to work with the others involved to identify the specific standardization needs and to respond with current and newly proposed standards.

XML represents a major area of opportunity where market forces are creating demand for standards and SC 32 is continually monitoring the work in this area and will react as soon as it sees and appropriate opportunity.

3.3 WORK PROGRAMME PRIORITIES

Each WG establishes work programme priorities in their project plan, which is approved in the SC 32 Plenary. These can be seen in the material, above. For example, high priority is given to the standardization of an integrated/interoperable information processing environment.

The SC has established a priority of educating each working group about the work and ideas of the other work groups. The prior SC 32 meetings have shown that there is considerable interest in the synergy that can be developed within the committee. The next SC 32 meeting will again include tutorials from each work group.

4.0 PERFORMANCE

JTC 1/SC 32 Performance (as of 2001-08-01)

SC 32 METRIC	1997	1998	1999	2000	2001	2002
Attendance at Meetings ^{1,7}	N/A	47 ⁶	57	73		
New Standards Published ²	2	4	8	4	5	
Total Standards Published ³	N/A	23	31	28	34	
Active Projects ⁴	N/A	40	42	38	44	
New Projects ⁵	N/A	0	4	4	0	

¹Average Meeting Attendance at Plenaries and Working Groups (where a plenary include a meeting of all working groups – if working groups do not meet during plenary meetings, a cumulative mean attendance to working group meeting should be used) (**Att. Plena.**)

²New Standards published (**NSP**)

³Total standards published (and currently valid) (**TSP**)

⁴Active projects (**AP**)

⁵New projects introduced (**NP**)

⁶This does not include the first Planning meeting of JTC 1/SC 32 in February 1998

⁷At the National Body level the Working Groups are obtaining considerable participation with electronic participation

