

# ISO/IEC JTC 1/SC 32 N 1603

Date: 2007-07-20  
REPLACES: N1436

<b>ISO/IEC JTC 1/SC 32</b>  <b>Data Management and Interchange</b>  <b>Secretariat: United States of America (ANSI)</b> <b>Administered by Farance Inc. on behalf of ANSI</b>
--

<b>DOCUMENT TYPE</b>	Business Plan
<b>TITLE</b>	Business Plan for JTC 1/SC32: 2006-2007
<b>SOURCE</b>	SC32 Chairman
<b>PROJECT NUMBER</b>	1.32.
<b>STATUS</b>	The Business Plan was adopted by SC32 in New York 2007-07-20
<b>REFERENCES</b>	
<b>ACTION ID.</b>	FYI
<b>REQUESTED ACTION</b>	
<b>DUE DATE</b>	
<b>Number of Pages</b>	13
<b>LANGUAGE USED</b>	English
<b>DISTRIBUTION</b>	P & L Members SC Chair WG Conveners and Secretaries

Dr. Timothy Schoechle, Secretary, ISO/IEC JTC 1/SC 32  
Farance Inc \*, 3066 Sixth Street, Boulder, CO, United States of America  
Telephone: +1 303-443-5490; E-mail: [Timothy@Schoechle.org](mailto:Timothy@Schoechle.org)  
available from the JTC 1/SC 32 WebSite <http://www.jtc1sc32.org/>  
\*Farance Inc. administers the ISO/IEC JTC 1/SC 32 Secretariat on behalf of ANSI

## JTC 1 or SC Business Plan

### BUSINESS PLAN FOR JTC 1/SC32: 2005-2006

#### PERIOD COVERED:

**September 2006 to July 2007 with Chairman's remarks to September 2007**

The Business Plan was approved by the SC 32 committee in New York on 2007-07-20 (SC 32N1604a New York Resolutions).

#### SUBMITTED BY:

Bruce Bargmeyer ISO/IEC JTC 1/SC 32 Chairman

### 1.0 MANAGEMENT SUMMARY

#### 1.1 CHAIRMAN'S REMARKS

SC 32 participants are progressing a wide range of projects as shown below. These projects are to develop standards that range from revisions of relatively mature technologies to new standards for emerging technologies. Participants include major vendors, academics, and users, including government agencies. Contributions are received from North America, Asia, Australia, and Europe—a resource that is beneficial to the quantity and quality of the standards. These strengths stand against substantial risks of shifting priorities and support within participating organizations as well as competition from other standards development organizations.

SC 32 WG 3 is making substantial revisions for capabilities of relational database management standards. SC 32 WG 2 has released a CD ballot for the core part of the third edition of ISO/IEC 11179 - Metadata Registries (MDR). This substantially extends metadata registry capabilities to register and manage semantics. Substantial efforts are being made to align these standards within SC 32 and between WG 2 and OMG, W3C and OASIS through a series of liaison and informal meetings. These standards are intended to lead the development of emerging technologies in these areas rather than to consolidate current industry practice. In addition to the standards specifications, prototype systems are being built to confirm the validity of the standards specifications.

#### 1.2 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 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/WG 1**

**Title:** e-Business

**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. establishment of 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.

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). This Group will be renamed to "eBusiness".

### **JTC 1/ SC 32/WG 2**

**Title:** Metadata

**Area of Work:** development and maintenance of 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:

1. establishment of a framework for specifying and managing metadata;
2. specification and management of data elements, structures and their associated;
3. specification and management of value domains, such as classification and code schemes;
4. specification and management of data about processes and behaviour;
5. development of facilities to manage metadata, for example: data dictionaries, repositories, information resource dictionary systems, registries and glossaries;
6. development of facilities to exchange metadata, including its semantics, over the Internet, intranets and other media.

### **JTC 1/ SC 32/WG 3**

**Title:** Database Languages

**Area of Work:** The terms of reference of ISO/IEC JTC1/SC32/WG3 Database Languages are:

1. 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. provide additional support for the integrity of database systems through transaction commitment, recovery, and security facilities.
3. 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. provide interfaces for the languages developed to other standard programming languages.
5. provide interfaces or access to other standards describing data types, behaviour or database content to users of the languages developed.

### **JTC 1/ SC 32/WG 4**

**Title:** SQL Multimedia & Application Packages

**Area of Work:** specification of 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.

## **1.3 PROJECT REPORT**

<http://jtc1sc32.org>

## **1.4 CO-OPERATION 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**

IEC B3 JWG 15	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	Systems Engineering -ODP & Modelling Languages

ISO/IEC JTC 1/SC 7/WG 7	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 27	IT Security 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/IEC JTC 1/SC 37	Biometrics
ISO/TC 37	Terminology (principles and coordination)
ISO/TC 37/SC 2	Terminology and other language resources - Terminography and Lexicography
ISO/TC 37/SC 3	Terminology/Computer Applications
ISO/TC 37/SC 4	Terminology and other language resources
ISO/TC 46	Information and documentation
ISO/TC 46/SC 4	Information and documentation/Computer applications
ISO/TC 46/SC 11	Archives / Records Management
ISO/TC 46/WG 2	Information and documentation/Coding of country names and related entities
ISO/TC 68/SC 2	Banking, securities and other financial services/ Security management
ISO/TC 127/WG 2	Mobile construction machinery - Work-site data exchange
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
ITU	International Telecommunication Union - Telecommunication Standardization Sector
UN/ECE	UN/Economic Commission for Europe/CEFACT

### **External Liaison Membership Category - B**

CISAC	International Confederation of Societies of Authors and Composers
SWIFT	Society for Worldwide Interbank Financial Telecommunication
WMO	World Meteorological Organization

### **External Liaison Membership Category - C**

DCMI	Dublin Core Metadata Initiative
Eurostat	Eurostat

IEEE LTSC	Learning Technology Standards Committee
OECD	Organisation for Economic Co-operation and Development
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, eBusiness, and Metadata Registry standards. We expect that progress to continue in the future. Excellent progress has also been made in developing revisions and extensions for SQL. An aggressive schedule for the next complete revision of ISO/IEC 9075 and progress is on track.

### 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 World Wide Web/Internet/Intranet/Extranet applications and related semantic technologies. 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.

SC 32 projects respond to an increasing market demand for semantics management and semantic computing. Better semantics are needed to ground the concepts used in databases, XML messages, text in documents (which may be stored in databases), the semantic web, etc. The work underway connects several ISO standards for terminology content and structure with standards for data management and interchange. SC 32 is exploring the market requirements for semantics management and potential extensions to new and existing standards in order to articulate and then fill the unmet need. Study periods are underway to explore database futures and topics such as ontology evolution.

The market demand for SQL database products remains strong. The clear acceptance of the SQL:2003 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 for electronic commerce products grows as firms struggle to move into the electronic marketplace. Standards for electronic business functions are necessary to facilitate this demand. The SC 32 work related to eBusiness and metadata registries is supporting JTC 1 involvement with the ISO IEC UN/ECE MoU Management Group, however SC 32 has not found volunteers to regularly participate in the MoU/MG meetings.

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 ISO TC 204 (Intelligent Transport Systems), ISO TC 211 (Geographic information/Geomatics), 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

Thirteen projects have completed during this period and are in Stage 5 – Publication:



Business Agreement Semantic Descriptive Techniques - Part 5: Identification and Mapping of Various Categories of Jurisdictional Domains

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

- |   |                     |
|---|---------------------|
| 1.32.22.01.02.00  | ISO/IEC FCD 19763-2 |
| Framework for Metamodel interoperability - Part 2: Core model                         |                     |
| 1.32.03.06.01.00  | ISO/IEC FCD 9075-1  |
| Database languages - SQL - Part 1: Framework (SQL/Framework)                          |                     |
| 1.32.03.06.02.00  | ISO/IEC FCD 9075-2  |
| Database languages - SQL - Part 2: Foundation (SQL/Foundation)                        |                     |
| 1.32.03.06.03.00  | ISO/IEC FCD 9075-3  |
| Database languages - SQL - Part 3: Call-Level Interface (SQL/CLI)                     |                     |
| 1.32.03.06.04.00  | ISO/IEC FCD 9075-4  |
| Database languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM)                |                     |
| 1.32.03.06.09.00  | ISO/IEC FCD 9075-9  |
| Database languages - SQL - Part 9: Management of External Data (SQL/MED)              |                     |
| 1.32.03.06.10.00  | ISO/IEC FCD 9075-10 |
| Database languages - SQL - Part 10: Object Language Bindings (SQL/OLB)                |                     |
| 1.32.03.06.11.00  | ISO/IEC FCD 9075-11 |
| Database languages - SQL - Part 11: Information and Definition Schemas (SQL/Schemata) |                     |
| 1.32.03.06.13.00  | ISO/IEC FCD 9075-13 |
| Database language SQL - Part 13: SQL Routines and Types Using the Java™ (SQL/JRT)     |                     |
| 1.32.04.04.01.00  | ISO/IEC FCD 13249-1 |
| SQL Multimedia and Application Packages - Part 1: Framework 4th Ed.                   |                     |
| 1.32.04.04.03.00  | ISO/IEC FCD 13249-3 |
| SQL Multimedia and Application Packages - Part 3: Spatial 4th Ed.                     |                     |

The following projects are progressing in Stage 3 – Committee Stage:

- |  |                      |
|--|----------------------|
| 1.32.31.01.06.00   | ISO/IEC PDTR 15944-6 |
| Business Agreement Semantic Descriptive Techniques - Part 6: Technical Introduction of e-Business Modelling                            |                      |
| 1.32.31.01.07.00   | ISO/IEC CD 15944-7   |
| Business Agreement Semantic Descriptive Techniques - Part 7: e-Business Vocabulary   |                      |
| 1.32.24.01.00.00   | ISO/IEC CD 24706     |
| Metadata for technical standards and specifications documents  |                      |
| 1.32.17.01.01.00   | ISO/IEC CD 20944-1   |
| Metadata Registry Interoperability and Bindings (MDR-IB) - Part 1: Framework, common vocabulary, and common provisions for conformance |                      |
| 1.32.17.01.02.00   | ISO/IEC CD 20944-2   |

Metadata Registry Interoperability and Bindings (MDR-IB) - Part 2: Coding bindings

1.32.17.01.03.00 ISO/IEC CD 20944-3

Metadata Registry Interoperability and Bindings (MDR-IB) - Part 3: API bindings

1.32.17.01.04.00 ISO/IEC CD 20944-4

Metadata Registry Interoperability and Bindings (MDR-IB) - Part 4: Protocol bindings

1.32.17.01.05.00 ISO/IEC CD 20944-5

Metadata Registry Interoperability and Bindings (MDR-IB) - Part 5: Profiles

1.32.19.02.00.00 ISO/IEC CD 14957

Representation of data elements values: Notation of the format - 2nd Edition

1.32.22.01.04.00 ISO/IEC CD 19763-4

Framework for Metamodel interoperability - Part 4: Metamodel for model mapping

1.32.23.01.00.00 ISO/IEC CD 19773-0

Metadata Registries (MDR) Modules

1.32.04.03.07.00 ISO/IEC CD 13249-7

SQL Multimedia and Application Packages - Part 7: History

## 2.3 RESOURCES

Adequate resources are currently available for all projects. SC 32 actively seeks and recruits new participants.

## 2.4 ENVIRONMENTAL ISSUES

None

## 2.5 PARTICIPATION METRICS

Indicate the active participation of National Bodies in both meetings and balloting. In particular, note if the 50% voting participation requirement is being met.

### JTC 1/SC 32 Performance (as of 2007-09-30)

SC 32 METRIC	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 <sup>10</sup>
Attendance at Meetings <sup>1, 7</sup>	47 <sup>6</sup>	57	73	62	53	47	47	61	37	33
New Standards Published <sup>2</sup>	4	8	4	5	1	5	5	1	0	13
Total Standards Published <sup>3</sup>	23	31	28	34	41	43	37	41	41	54
Active Projects <sup>4</sup>	40	42	38	44	77	64	67	66	66	66
New Projects <sup>5</sup>	0	4	4	0	13 <sup>8</sup>	3	0	2	0	0

<sup>1</sup> Average Attendance at Plenary and Working Group Meetings  
(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.**)

<sup>2</sup> New Standards published (**NSP**)

<sup>3</sup> Total standards published (and currently valid) (**TSP**)

<sup>4</sup> Active projects (**AP**)

<sup>5</sup> New projects introduced (**NP**)

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

<sup>7</sup> At the National Body level the Working Groups are obtaining considerable participation with electronic participation

<sup>8</sup> Project splits waiting justification then JTC 1 approval

<sup>9</sup> Plus 250 attendees at the Open Forum on Metadata Registries, held concurrent with the SC 32 meetings, The attendance number does not include several Open Forum attendees who are also SC 32 participants at the National Body level, but who were unable to remain a second week for the SC 32 meetings.

<sup>10</sup> Since April 2007

### 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, eBusiness and data semantics. SQL work is expected to be particularly active. The metadata registry market is very active, driving rapid development of all parts of ISO/IEC 11179.

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

The eBusiness Working Group (WG 1) is concentrating on the second part of ISO/IEC 15944: Information technology - Business Agreement Semantic Descriptive Techniques Part 2: Registration of Scenarios and their Components, and the fourth part of ISO/IEC 15944: Information technology - Business Agreement Semantic Descriptive Techniques Part 4: Business Transactions and Scenarios – Accounting and Economic Ontology 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 with revisions to the ISO/IEC 11179 family of metadata registry standards. A major effort is underway to produce a revised metamodel for metadata registries. This will form the foundation for the next edition (E3) of this family of standards. It is intended to greatly enhance the semantic management capabilities. Close coordination with ISO/TC 37 (Terminology and other language resources) is under way to ensure that Metadata Registry management of semantics will be consistent with and complimentary to other ISO standards in this area. The ISO/IEC 20944 project 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. WG 2 is working to demonstrate use of XML for accessing and interchanging information in 11179 conformant data registries. Work is also underway to foster interoperability between ISO/IEC 11179 metadata registries, XML registries, OASIS ebXML Registries, and facilities that will be built in conformance with OMG the Ontology Definition Metamodel and Information Management Metamodel. The OMG Common Warehouse Metamodel (CWM) is being progressed as a PAS submission, with WG 2 handling the process and editing sessions. It is expected that OMG will submit the Ontology Definition Metamodel as a PAS submission once it is finalized in OMG. WG 2 is well on its way in completing the family of standards, ISO/IEC 19763 - Metamodel Framework for

Interoperability. This family of standards will help businesses to translate between local ontologies to facilitate business interactions. This is an area of emerging technology.

The WG 2 work is positioned to meet the deeper semantic management aspects of data management and interchange. This includes provision of semantics for semantic computing, the semantic web and management of XML schemas, tags, classification schemes, and associated metadata.

WG 2 sponsors an annual *Open Forum on Metadata Registries*. The tenth Forum was held in New York, NY, USA in July 2007 in partnership with ISO/TC 37. The eleventh Forum is planned to be held in Australia in May 2008.

### **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.

The committee is focused on identifying and meeting market requirements, and emphasizes new projects that have well-defined, concrete objectives that are market driven.

SC 32 empowers its WGs by delegating everything that can be delegated to a WG, per JTC 1 directives, 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. Only an opening and closing plenary are held with less than a half-day duration, each. Inter-WG 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 closing Plenary. This strategy is intended to make the SC as productive as the members can be.

SC32 maintains extensive contact with software developers and users to keep in close alignment with market forces. The Working Groups continue to utilize electronic editing meeting in order to progress the work as fast as possible.

#### **3.2.1 RISKS**

Each of the Working Groups within SC 32 has its own priorities and strategies for achieving its objectives. There is increasing progress in identifying and establishing critical inter-group understanding and liaisons. Some progress is being made on developing new standards that cut across the WG organizational lines. A study period meeting was held in Clearwater Florida for WG 2 and WG 3 to work together on database management futures. 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 subcommittee.

There is some possibility that major vendors may wish to re-focus their efforts within national bodies or other standards groups, with the intention to progress the resulting standards through JTC 1 as Fast Track/PAS submissions. There is a possibility that major standards such as SQL could be declared as mature and not require substantial additional effort within SC 32. There is also a possibility that major participant groups within any of the WGs may drop participation for financial, programmatic, product, or other reasons, thus severely damaging the viability of the WG and/or SC 32.

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 would dilute its focus and might 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 may cause some perturbation in the work schedules. However, if SC 32 loses technology leadership, it may lose control. Therefore, rapid development of new standards, as well as producing the next edition of existing standards, is a crucial factor in 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.

Other standards bodies are very active in areas related to SC 32 standards. SC 32 must be nimble to maintain its relevance and leadership.

### **3.2.2 OPPORTUNITIES**

The Internet, electronic commerce, semantic computing, the semantic web, object technologies, and XML represent major areas of opportunity where market forces are creating demand for SC 32 standards. SC 32 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. 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.