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MANAGEMENT REPORT AND BUSINESS PLAN FOR

ISO / IEC JTC 1/SC7

SOFTWARE ENGINEERING

PERIOD COVERED: October 2008 - September 2009

SUBMITTED BY: François Coallier, Chairman
Witold Suryn, Secretariat

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1.0 MANAGEMENT SUMMARY

1.1 CHAIRMAN'S REMARK

The last year saw JTC 1/SC7 completing 8 projects (May 2008-May 2009) and initiating 7 new ones. 9 additional new projects are under consideration by the SC7 members since the SC7 May 2009 plenary in Hyderabad, India. Exploration of new areas as well as consolidation of existing ones is done by its SWG 5 on architecture, 17 study groups (7 till May 2009 and 13 currently active) and an Advisory Group on life cycle process (LCPHAG) whose mandate is to perform an architectural analysis and recommended framework for an integrated set of process standards in software and IT systems domains.

It is noteworthy that one SC7 standards published during the period was the subject of an ISO communiqué: ISO/IEC 24773, Software engineering – Certification of software engineering professionals – Comparison framework (2008-10-27).

SC7 has currently 37 'P' members, compared to 29 in 2003. The last SC7 plenary in Hyderabad, India, was a success with 175 delegates from 28 countries and 4 'A' liaison organizations.

While SC7 is continuing to develop and consolidate its work in software and systems engineering development standards, work to address management and operation of IT systems is intensifying. IT systems management and operations was already touched at in different degrees by SC7 in its software and systems life-cycle standards as well as its software maintenance, risk management, software systems assurance and products related standards.

1.2 JTC 1/SC7 STATEMENT OF SCOPE, VISION, PURPOSE AND CORE VALUES

Scope

The following "Terms of Reference" were approved by JTC1 at its 1997 Plenary in Paris:

> ***"Standardization of processes, supporting tools and supporting technologies for the engineering of software products and systems.***
>
> ***Note: The processes, tools and technologies are within the scope of JTC1 terms of references and exclude specific tools and technologies that have been assigned by JTC1 to other of its SC's."***

Vision

The vision of SC7, as elaborated at its 1997 Walnut Creek business planning workshop and endorsed formally by member bodies, and updated to reflect the changes in Terms of Reference since then:

> ***A unified set of software and systems engineering standards widely accepted by the intended class of users.***

These standards will be organized in a framework, which establishes the relationships among SC 7 standards and between SC 7 standards and those of other disciplines, e.g. engineering, information technology, and quality management.

Purpose

The purpose of SC7, as elaborated at its 1997 Walnut Creek business planning workshop and endorsed formally by member bodies and updated to reflect the changes in Terms of Reference and the evolution of SC7 since then, is to:

- Provide quality software and systems engineering standards that meet user needs in broad markets.

- Manage the set of standards effectively through documented framework.
- Promote the use of standards by providing supporting materials.
- Provide leadership in software and systems engineering standardisation through:
  - The development of a comprehensive set of integrated standards with broad international and professional consensus;
  - Initiating cooperative work with international professional and standards producing organizations;
  - A framework that:
    - Facilitate the integration and sub-contracting of standards developed in other standards producing organization;
    - Facilitate cooperative development of joint standards with other international standards producing organizations;
    - Minimises the inconsistencies between major software and system related standards including those developed by other standard producing organizations.

Area of work

Systems engineering, whose origin is traceable to industrial engineering, is defined as an interdisciplinary approach governing the total technical and managerial effort required to transform a set of customer needs, expectations, and constraints into a solution and to support that solution throughout its life (ISO/IEC FCD 24765, Systems and Software Engineering Vocabulary).

SC7, whose scope is Software and Systems Engineering, can thus be described as an horizontal committee who produce generic standards that are independent of the application domain. These standards are principally focused on process models and good practices (Methods and techniques).

As system engineering standards, they cover the entire life cycle of products. In ISO and IEC, a product is defined as the output of a process (ISO 9001). Product include thus:

- –Software Systems
- –Services related to software systems engineering and operations
- –Services provided by software systems (from an Horizontal perspective)

The SC7 market thus include the following:

- Software Systems:
  - Embedded Systems
  - Information systems
  - Interactive media systems
- Services:
  - Related to the development and operations of software systems (IT and Engineering services Outsourcing/Offshoring, IT and Engineering professional competencies)
  - Provided commercially by software systems (M2M Web Services, Software as a Service) from an 'Horizontal' perspective

We are meeting our mandate and achieving our objectives by addressing certain key areas in software and systems engineering standardization:

- Software and systems engineering processes:
  In partnership with the International Council of Systems Engineers (INCOSE), the Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS), the IT Service Management Forum (itSMF), the Information Systems Audit and Control Association (ISACA), and other parties, SC7 is developing and improving on standards which describe good software and systems engineering practices, as well as standards to consistently assess organizational software and system engineering practices against a given benchmark. A project on Requirements Engineering is under progress. Work has also been done in this area to provide guidelines on the usage of SC7 standards for very small enterprise.

- Software system products:
  Developing and improving on standards which allow acquirers and buyers to size and document software products as well as to express measure and evaluate the quality of the software that is produced and its contribution to the final product or application system. These standards are principally found in the ISO/IEC 25000 series, commonly known as SQuaRE (Software product Quality Requirements and Evaluation). A working group is also dedicated to the area of information systems documentation (ISO/IEC 6592 and 15289).

Work is also being done, in cooperation with the IEEE-CS and INCOSE, in software and systems architecture, with an IEEE standard having been recently adopted (ISO/IEC 42010). A new project on Software Testing has been initiated in May of 2007.

- Techniques for Specifying IT Systems:
  In partnership with the Object Management Group (OMG), SC7 is developing and improving on Open Distributed Processing (ODP) standards to integrate IT and business system definition and provide the software and system engineering tools to implement enterprise information systems. Noteworthy in these areas have been the UML standards that came through the OMG (ISO/IEC 19501) and the new standard on Metamodel for Development Methodologies (ISO/IEC 24744).

- Software engineering environment:
  Developing and improving on standards which make it easier to use software engineering environments and to re-use and re-deploy the data contained in them. The main standards in this area are ISO/IEC 14102 and 15940).

- Software and Systems Bodies of Knowledge and Professionalization:
  Working with the Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS) on their guide to the Software Engineering Body of Knowledge (SWEBOK), SC7 published it as an ISO/IEC Technical Report (ISO/IEC TR 19759). A project on the certification of software engineers is currently active. In addition SC7 is considering as a possible ISO/IEC Technical Report the INCOSE Systems Engineering Handbook, version 3.

- IT Service Management:
  In partnership with the IT Service Management Forum (itSMF), the Information Systems Audit and Control Association (ISACA) and other parties, SC7 is developing and improving on standards that describe good IT service management practices, including areas such as the management of software assets.

- IS Governance Frameworks and Systems:
  In partnership with the IT Service Management Forum (itSMF), the Information Systems Audit and Control Association (ISACA) and other parties, and to complement the work done by JTC 1/WG6, SC7 is elaborating standards and guidelines for IS Governance framework and systems to enable the application of corporate IT governance to IT operations. Before the creation of JTC 1/WG6, SC7 published in 2008 a landmark standard in this area, ISO/IEC 38500.

Core Values

SC7 core values are:

- Consensus
  - At an International level and with regards to software and system engineering best practice
- Full and open deliberation
  - Active involvement with related disciplines
- Informed participation
  - Awareness of the subject
  - Awareness of the market
  - Awareness of JTC1 procedures
  - Awareness of project background
- Equality and members/tolerance
  - At a minimum to follow JTC1 procedures
- Commitment to quality
  - Maintain awareness of best practice and user needs

Commitment of participants to the process

- Recognition of the importance of continuity in standards development
- Professionalism
  - Maintaining awareness of software and system engineering practices

1.3 PROJECT REPORT

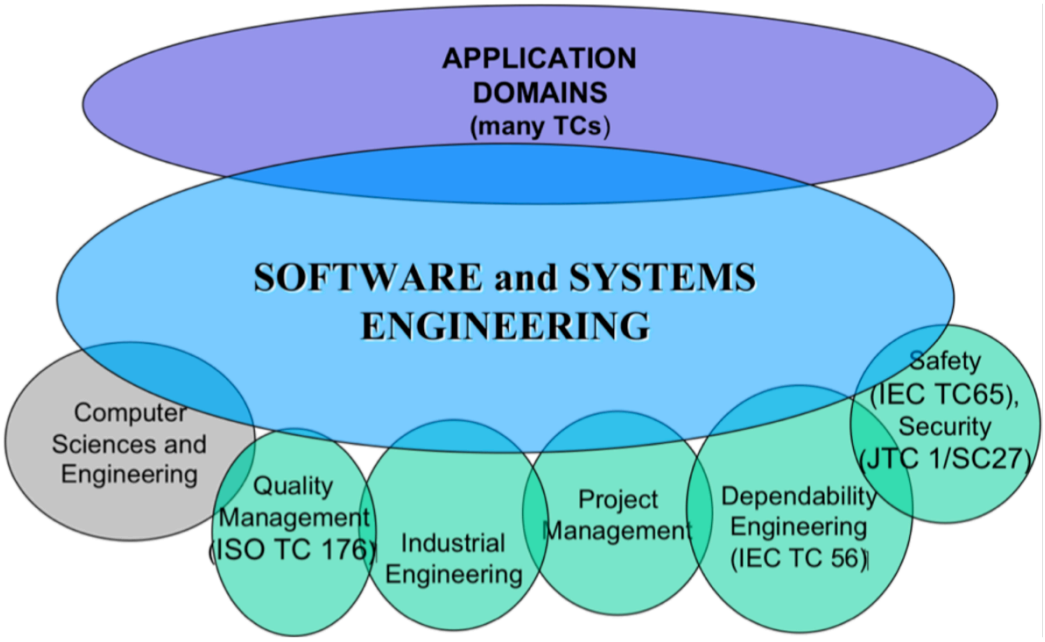
As of 2009-09-11, there were 64 active projects / sub-projects in JTC 1/SC7 (see http://www.jtc1-sc7.org/). These are handled by 14 active working groups and one joint working group with ISO/TC54 (See annex A). The following standards have been published between the last JTC 1 Plenary and 2009-09-11:

- ISO/IEC TR 15504-7:2008
  Information technology -- Process assessment -- Part 7: Assessment of organizational maturity
- ISO/IEC 24773:2008
  Software engineering -- Certification of software engineering professionals -- Comparison framework
- ISO/IEC 25012:2008
  Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Data quality model

1.4 COOPERATION AND COMPETITION

Internal

JTC 1 has recognized that its SC7 is a "process focused" SC. The diagram that follows illustrates how SC7 scope interacts with other SC's and disciplines:



All those overlaps have the potential to generate liaison challenges.

There are at least two other process focused TC's in ISO and IEC that also had overlap with the JTC1/SC7 program of work: ISO/TC176 and IEC/TC56.

The issues of overlap between SC7 and ISO/TC 176 programs of work have been resolved through liaison and the transfer of the responsibility for the maintenance of ISO 9000-3 to JTC 1/SC7.

External

SC7 has A-liaisons with:

- IEEE Computer Society
- INCOSE
- itSMF
- ITU-T
- PMI

Documents from the IEEE Computer Society, the OMG and the ITU-T were or are moving through the standardization process either as PAS, Fast Track or through the normal process.

By regard to the IEEE Computer Society liaison, the current status of the liaison is:

- Approved vision for joint program of work: 07N2742.
- Approved procedures for common work: 07N2743.
- IEEE documents are submitted either as base documents or fast track through a National Body.
- Current joint projects include:
  - Vocabulary
  - Software Engineering Certification
  - Software and Systems Assurance
  - Software Engineering Body of Knowledge

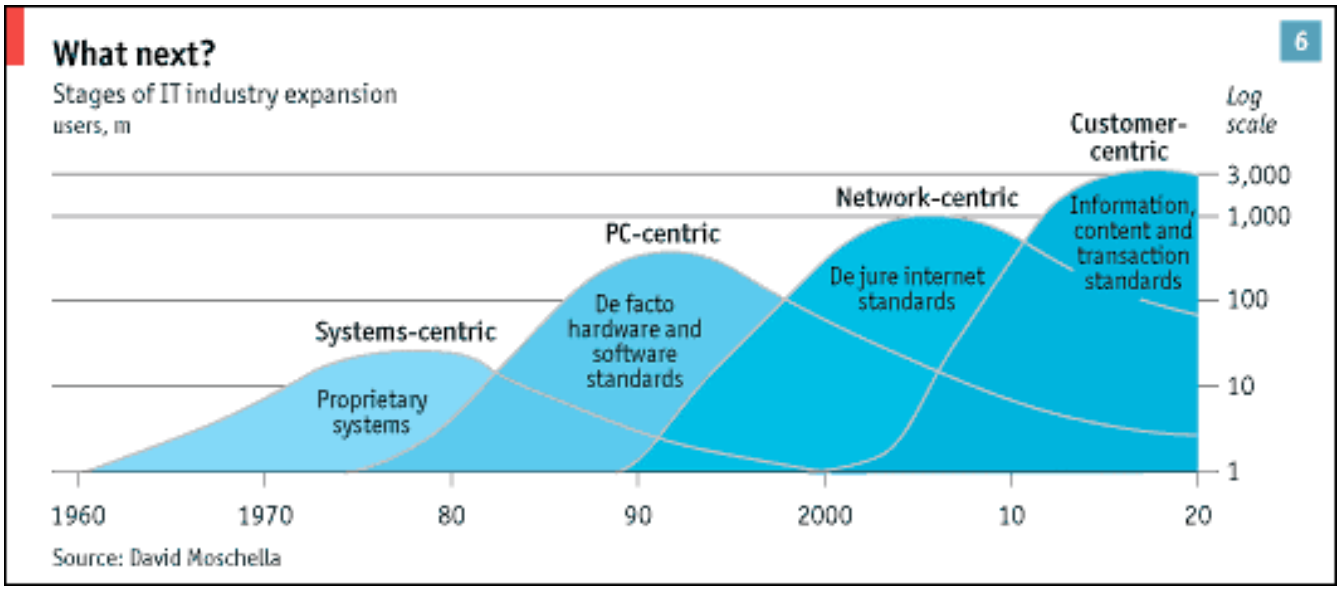
2.0 PERIOD REVIEW

2.1 MARKET REQUIREMENTS

Overall Trend

The Information and Communication Technology (ICT) sector has been going through phases of technological changes and expansions in the last 40 years. As illustrated on the next page, 3 of these phases occurred in the past and we are now entering a fourth one.

- The first phase was when the industry was dominated with large mainframe and minicomputers based systems located in centralized data centers and operated by elite groups of people. This was the time of proprietary hardware dominated systems.
- The second phase came with the microprocessor and the personal computer. Suddenly, computing moved from the small data center elite to end-users. It also started to become mass-market phenomena. A de-facto market set of standards quickly dominated this market: the so-called Wintel (Windows operating systems and Intel processor) standard.
- The third phase became visible when, in 1993, a group of students from the University of Illinois developed the first Internet browser, Mosaic [1]. Quite suddenly, the Internet moved from a network for small elite of researchers to a mass market phenomenon. At about the same time, Microsoft introduced direct support for networking in its operating systems. PCs, as well as the data centres computers, started to evolve from islands of automations to nodes of a network. This evidently had a significant impact on the design of computer applications.
- The fourth phase will be focused on an open transactional environment dominated by, among other things, machine to machine (M2M) communications and mobile computing. It will be supported by open middleware and other open standards.



From: *The fortune of the commons.* In *Coming of Age - A Survey of the IT Industry.* The Economist, May 8th 2003

The following summarize our perspective on Software and Systems Engineering trends:

- Technology
  - IT is getting more ubiquitous, especially with the spread of direct machine to machine (M2M) communications.
  - Software engineering is getting more mature, but still evolving.
  - An IT application is nowadays a software system whose software components can be made, bought, open-source in origin or a Web service. The Web service can be from within an Intranet, or from the Internet.
  - Information Systems (IS) are '*Systems of Systems*'.
  - Developing software systems and IT applications is much more involved that classical programming: these systems must be engineers not only to meet functional requirements but also stringent quality attributes such as performance, reliability, availability, scalability, usability, security and security.
  - In some cases, the difference between software and data is blurring.

- Markets
  - A lot of software is brought, as a product or a (Web) service – not developed
  - Open source software is taking hold in many markets
  - Some Software Systems development and maintenance services are becoming commodities, other remain high value add
  - The Internet is making geography less relevant for some Software Systems engineering, maintenance and operation services
  - IT Services are now a significant part of global commerce
  - The computing, telecommunications and consumer electronics market have been converging and this trend is accelerating
  - Interactive medias systems are proliferating and becoming a significant part of the global software system market.
  - Mobile computing platforms are becoming a significant market for software applications

- Standards
  - A growing international consensus on software and systems engineering good practices is formalized.

SC7 Marketplace

The over-riding requirement is that the software and system engineering standards are focused on the needs of the users of those standards. We are targeting in our work the following types of *standards user*:

Software, Systems and IT Services Houses

Those who supply the software system and IT services needs of the consumer, commercial, industrial, defence, and public sectors, and who need to preserve their competitiveness in the face of ever changing world markets. To address international markets, they need to be able to offer services and products that will match the best available from anywhere in the world.

Software and system engineering standards from JTC 1/SC7 provide one of the means to judge what is meant by best.

Corporate Information Systems Users

Software and system engineering standards can directly serve the needs of using organizations by reducing costs, improving IT services, encouraging fair competition, allowing re-use of existing software and generally reduce risks and uncertainty.

ODP and associated standards provide enterprise architects and system developers tools to architect and design robust, modular enterprise applications and systems.

Embedded software system suppliers

This category includes a wide variety of companies supplying software embedded within systems that are themselves embedded in a product. It might be a consumer product such as a cell phone or a car, avionics, a weapons control system, or a heart pace maker. In all these cases the software is just a component of the system or final product, but it is critical that it is well engineered in the context of the overall engineering effort involved.

Methods and tools suppliers

Although this market is still formative there are already ad-hoc and proprietary standards for software and system engineering methods and tools. As the market matures it is important to remove barriers to more open use of CASE tools and methods.

Software and System engineering educators

As mentioned earlier, JTC 1/SC7 standards define a body of knowledge of good practices. These standards, including the one specifically addressing this issue currently under development, provide a sound foundation for educators in software and system engineering.

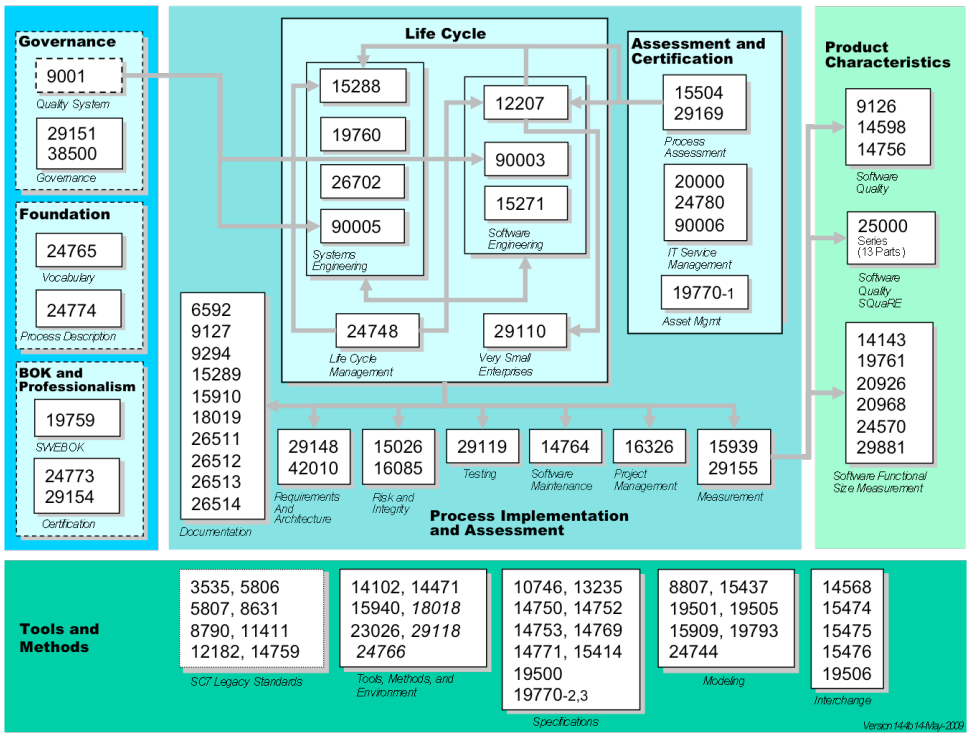
Domain specific standards developers

JTC 1/SC7 standards are, in ISO jargon, horizontal standards. This means that these standards are basically of a generic nature and can be applied in different domains such as for the development of transportation systems, space systems, security products, etc..

Organisation developing those domain specific standards will find in JTC 1/SC7 standards a foundation they can use to build on.

2.2 ACHIEVEMENTS

See sections 1.2 and 3.2. The current collection of SC7 standards is as follows:



2.3 RESOURCES

SC7 recognize that resources are an important factors for the successful the execution of the work program. At this point in time, there is sufficient support for all of the SC7 projects.

A strategy to address this is to bring in projects with documents that have been already developed by other standardizations organization. This is what was done with the OMG and the IEEE Computer Society.

2.4 ENVIRONMENTAL ISSUES

N/A

2.5 PARTICIPATION METRICS

Up to the May 2006 Plenary in Bangkok, the 50% participation to voting has been met in all ballots, although with difficulty in many cases.

At its Bangkok plenary, JTC 1/SC7 adopted the following resolution:

SC7 internal balloting

880.	JTC1/SC7 instructs its Secretariat to take whatever action necessary to convert to the ISO electronic balloting system as of the 1st of June 2006. The NBs of P members should use their Livelink accounts to cast ballots. The instruction document on electronic balloting will be available on SC7 Web site.	

Implementation of this resolution has resulted up to now in a ballot participation rate of 63 to 90%.

3.0 FOCUS NEXT WORK PERIOD

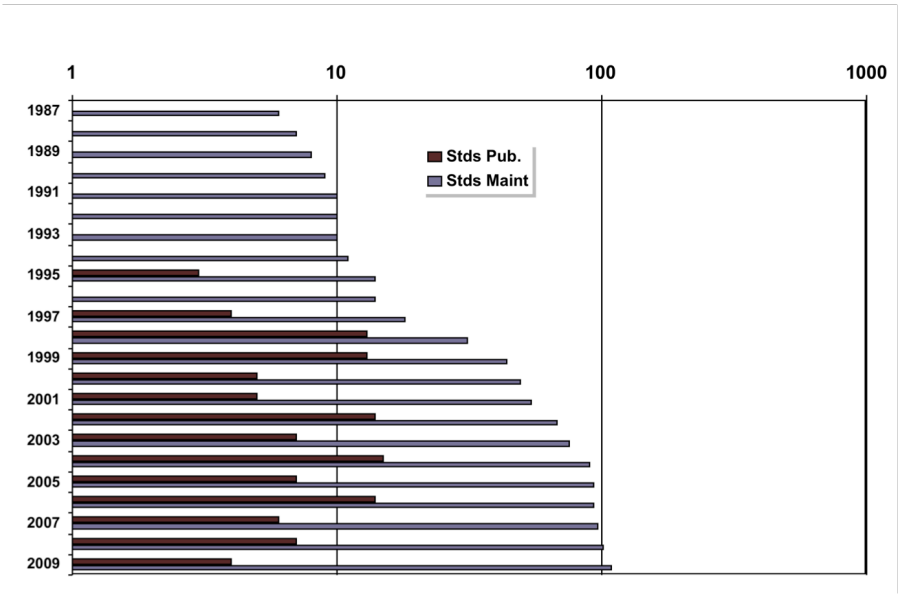
3.1 DELIVERABLES:

As of 2009-09-11, the following projects are near completion:

- ISO/IEC DTR 15026-1
  Systems and software engineering -- Systems and software assurance -- Part 1: Concepts and vocabulary
- ISO/IEC FDIS 15909-2
  Software and system engineering -- High-level Petri nets -- Part 2: Transfer Format
- ISO/IEC DTR 18018.2
  Information technology -- Configuration Management tool capabilities
- ISO/IEC DIS 19500-1
  Information technology -- Open distributed processing -- Common Object Request Broker Architecture (CORBA) specification -- Part 1: CORBA interfaces
- ISO/IEC DIS 19500-2
  Information technology -- Open distributed processing -- Common Object Request Broker Architecture (CORBA) specification -- Part 2: Interoperability
- ISO/IEC DIS 19500-3
  Information technology -- Open distributed processing -- Common Object Request Broker Architecture (CORBA) specification -- Part 3: Components
- ISO/IEC DIS 19506
  Information technology -- Architecture-Driven Modernization -- Knowledge Discovery Meta-model (KDM), v1.1
- ISO/IEC FCD 19761
  Software engineering -- COSMIC: A functional size measurement method, Specification of Data Value Domain
- ISO/IEC FDIS 19770-2
  Information technology -- Software asset management -- Part 2: Software identification tag
- ISO/IEC FCD 20000-1
  Information technology -- Service management -- Part 1: Service management system requirements
- ISO/IEC DTR 20000-3
  Information technology -- Service management -- Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1
- ISO/IEC DTR 20000-5
  Information technology -- Service management -- Part 5: Incremental conformity based on ISO/IEC 20000
- ISO/IEC DIS 20926
  Software and systems engineering -- Software measurement -- IFPUG functional size measurement method 2009
- ISO/IEC DTR 24748-1
  Systems and software engineering -- Guide for life cycle management
- ISO/IEC DTR 24766.2
  Information technology -- Requirement engineering tool requirements
- ISO/IEC DTR 24774
  Software and systems engineering -- Life cycle management -- Guidelines for process description
- ISO/IEC FCD 25040
  Software engineering - Software product Quality Requirements and Evaluation (SQuaRE) - Evaluation reference model and guide

- ISO/IEC FCD 25045
  Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Evaluation module for recoverability
- ISO/IEC DTR 25060
  Software product Quality Requirements and Evaluation (SQuaRE) -- Common Industry Format (CIF) for Usability -- General Framework for Usability-related Information
- ISO/IEC DIS 26500
  Information technology -- Application management -- Requirements for application management
- ISO/IEC FDIS 26513
  Systems and software engineering - Requirements for testers and reviewers of user documentation
- ISO/IEC FPDISP 29110-2
  Software Engineering - Lifecycle Profiles for Very Small Enterprises (VSE) -- Part 2: VSE Profiles Framework and Profile Taxonomy
- ISO/IEC FPDISP 29110-4-1
  Software Engineering -- Lifecycle Profiles for Very Small Enterprises (VSE) -- Part 4-1: Basic VSE Profile Specification

Standard production by SC7 is, as of 2009-09-11, looking as follows:



3.2 STRATEGIES

An SC7 Strategic Planning Workshop was held prior to the 1997 Walnut Creek Plenary and the results documented in SC7 07N1763, SC7 Direction Statement 1997. This document was accepted by SC7 member bodies after formal balloting. A revised and updated version of this document titled *SC7 Draft Direction Statement 2003-2008* (07N2898) has been balloted.

Business Planning activities have been going on in SC7 for the last 8 years. To ensure proper focus and continuity, SC7 has formalized at its 1997 Walnut Creek Plenary the SC7 Business Planning Group (BPG) as a "special working group" (SWG). Its current mandate is to:

1. Support the Chair in the elaboration of directions and policies.
2. Assist the chair in the prompt resolution of issues.
3. Propose update to the JTC1/SC7 business plans and procedures.
4. Propose updates to JTC1/SC7 communications function.
5. Prepare procedures and organization responsibilities to ensure an integrated strategy planning, business planning, and management systems for JTC1/SC7.

The BPG is under the direction of the JTC1/SC7 Chair and his currently composed of:

- Dr. Annette Reilly (USA)
- Mr Jean Bérubé (Canada)
- Dr. Y. Yamamoto (Japan)
- Dr. Dan Lee (Korea)
- Prof. Alastair Walker (South Africa)
- Mr. Risto Nevalainen (Finland)
- Mr. Antonio Coletta (Italy)
- Dr. Gargi Keeni (India)
- Mr Anukul Tamprasirt (Thailand)

Full day business planning activities are thus held since 1998 by the SC7 Advisory Group in each plenary meeting.

All SC7 Business Planning documents can be found at the SC7 web site http://www.jtc1-sc7.org/ under the heading *Planning*.

The key SC7 strategies documented in 07N2898 are:

- **S1** - Ensure that its standards are as consistent and coherent as possible.
- **S2** – Become more a systems integrator by focusing its development activities on integrations standards and adopting and integrating standards developed by other organizations.
- **S3** - Develop and manage key strategic partnerships with international professional and standardization organizations that operate in its mandated area. In 2002 these were the IEEE-CS, INCOSE and OMG.
- **S4** - Communicate efficiently to its intended customers about its program of work and market its accomplishments.
- **S5** - Proactively assess the relevance of its standards to the state of software and systems engineering technology and markets, and initiate maintenance or new development activities if required.
- **S6** - Increase its market share in the area of systems engineering
- **S7** - Ensure that its standards are as compatible and coherent as possible

A view of SC7 current products set strengths and opportunities as of its Brisbane may 2004 plenary meeting was summarised by the SC7 Chairman summarised in the following table:

STRENGTHS	OPPORTUNITIES
• Life-Cycle Processes • Product Metrics • Process Metrics • Formalisms • Software Engineering Body of Knowledge • Tools environment	• Systems Engineering • Software and Systems Assurance • Systems Architecting • IT Operations and Services • Re-use • Agile Processes • Open Source Software (OSS) • Curricula and Certification • Application Domains Acceptance • Data

As a result of this analysis, SC7 has initiated a series of study periods documented in its Brisbane (Document SC7 N3062) , Helsinki (SC7 N3274) and Bangkok (SC7 N3535) plenary meeting resolutions. The current study groups are listed in annex A.

Since the Brisbane plenary, new work has been initiated in the following area:

- Certifications of software engineers
- Software and Systems Architecture
- Software and Systems Assurance
- Data quality
- IT Service Management
- IT Governance

The following Study Groups are currently active:

- Framework for Software Processes Methodology
- Agility
- Service Oriented Architecture (SOA)
- IT Enabled Services (ITES)
- Embedded Systems
- System Integration
- Guidance for Process Description
- Tools and Methods of Software Testing
- IS Governance for Cloud Computing
- IS Governance for Service Providers
- IS Governance for IT Audit
- IS Governance for Enterprise Architecture
- Software Engineering Certification Schemes

3.2.1 RISKS

SC7 is presently in a mode where its focus is to produce new standards. As documented in section 3.0, a significant number of deliverables will be produced in the next 15 months.

Risks are managed through:

- Proactive business planning
- Continuous management

SC7 has currently two Special Working Groups (SWG) in place to contribute to the above:

- SWG1 on business planning
- SWG5 on architecture management

See Annex A for further details.

3.2.2 OPPORTUNITIES

Plenary Attendance

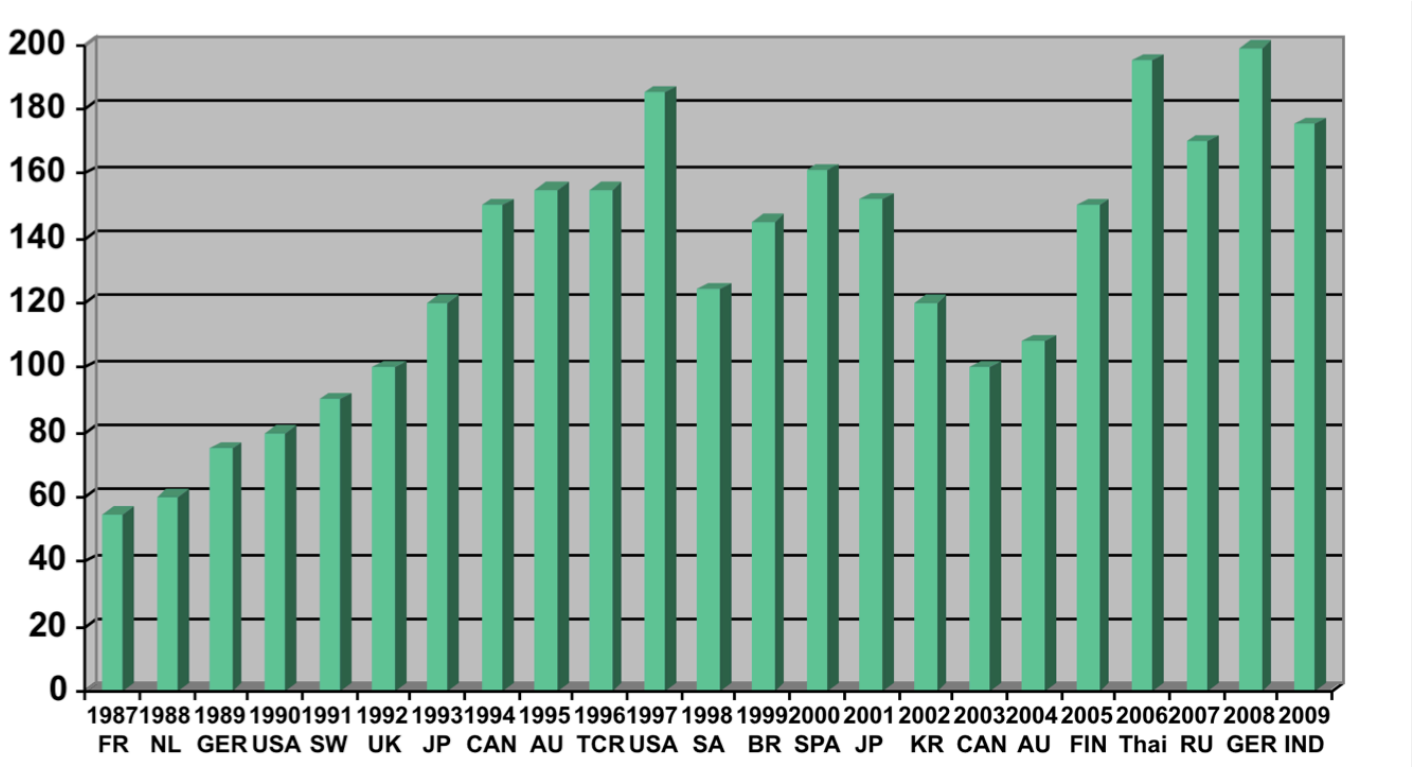
SC7 has seen in the last few years its attendance at Plenary meetings has grown continuously to reach a plateau of between 120 and 140 (see figure). Attendance at the Montréal plenary was over 100 even if many experts could not attend because of company policy due to the presence of SARS in Toronto.

Participation to the last plenary in Hyderabad, India, was 175 delegates from 28 countries.

Host for future plenary meetings have been identified for most of the next four years. These are:

- 2010 – Japan
- 2011 – France
- 2013 – Canada (tentative)

The growing importance of software based product and services in post-industrial society and developing economies should ensure that interest in SC7 should remains high in the foreseeable future as long as proper market relevance is maintained.



New projects

The following projects have been initiated in the last 12 months:

- ISO/IEC NP TR 15504-10 Information technology -- Software process assessment -- Part 10: Safety Extensions
- ISO/IEC NP 19770-3 Information technology -- Software asset management -- Part 3: Software entitlement tag
- ISO/IEC NP 26516 Software and Systems Engineering - Reference model for software and systems product lines
- ISO/IEC NP 26521 Software and Systems Engineering - Tools and methods of requirements engineering and management

- for product lines
- ISO/IEC NP 29169 Information technology -- The application of conformity assessment methodology to process capability and organizational maturity
- ISO/IEC NP 90003 Software engineering -- Guidelines for the application of ISO 9001:2000 to computer software
- ISO/IEC NP 90006 Information Technology -- Guidelines for the application of ISO 9001:2000 to IT service management.
- ISO/IEC DIS 26500 Information technology -- Application management -- Requirements for application management

The following new project proposals are currently under consideration:

- NWIP, Software Engineering - Software product Quality Requirements and Evaluation (SQuaRE) - Quality measure elements
- NWIP, Software and systems engineering – Developing user documentation in an agile environment
- NWIP, Software and Systems Engineering – Process assessment – Concepts and terminology
- NWIP, Information Technology – Process Assessment – Requirements for Performing Process Assessment
- NWIP, Software and Systems Engineering – Requirements for Process Measurement Frameworks
- NWIP, Software and Systems Engineering – Requirements for Process Models
- NWIP, Software and Systems Engineering – Guide for Process improvement
- NWIP, Software and Systems Engineering – Measurement Framework for assessment of process capability and organizational maturity

3.3 WORK PROGRAM PRIORITIES

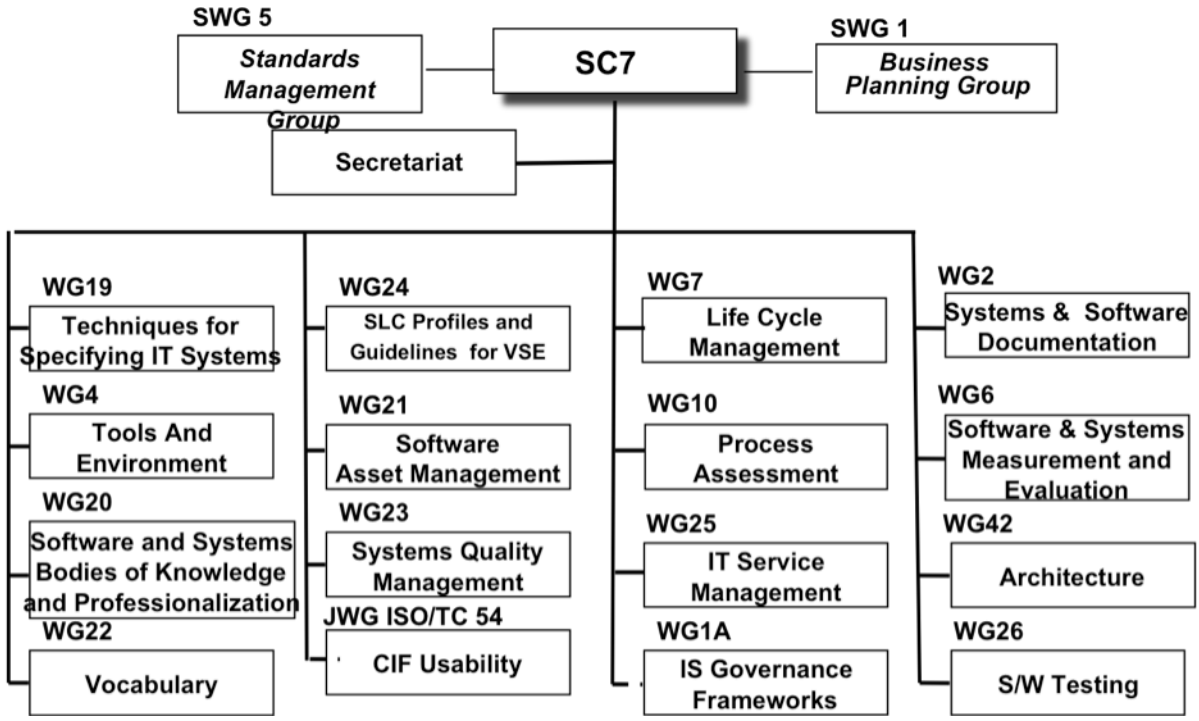
SC7 work program strategy is to suspend or cancel any project that does not have sufficient resource. Consequently, SC7 priorities are to ensure that its present work program is executed in a timely fashion while producing quality documents. Another element of the SC7 strategies is to adopt suitable documents produced by external organizations.

ANNEX A: SC7 ORGANIZATION

The following WG are presently active:

WG	SCOPE	CONVENER	WEB SITE
2	*Development of standards for the documentation of software systems.*	Richard Hodgkinson UK	YES
4	*Development of standards and technical reports for tools and Computer Aided Software/System Engineering (CASE) environments*	***D. Lee - Korea***	
6	Development of Standards and Technical Reports for Software Product and System Quality Requirements, Measurement and Evaluation	***Motoei Azuma - Japan)***	
7	*Development of standards and technical reports on Life Cycle Management.*	***Anatol Kark - Canada***	YES
10	*Development of standards and guidelines covering methods, practices and application of process assessment in software product procurement, development, delivery, operation, evolution and related service support.*	***Alec Dorling - UK***	YES
19	*The development of standards to enable the integration of business and IT system specifications, and to facilitate the provision of software and system engineering tools and techniques to implement information systems.*	***Jean Bérubé - Canada***	YES
20	*Software and Systems Bodies of Knowledge and Professionalization.*	**Juan Garbajosa - Spain**	SWEBOK
21	*Software Asset Management Process standards development.*	**David Bicket - UK**	YES
22	*Software and Systems Engineering Consolidated Vocabulary.*	**Annette Reilly - USA** ***(2004 - N3062)***	
23	*Systems Quality Management.*	**Shigenobu Katoh - Japan**	
24	*Software Life Cycles for Very Small Enterprises.*	**Tanin Uthayanaka Thailand**	
25	*IT Operations.*	**Jenny Dugmore - UK**	
26	*Software Testing*	**Dr Stuart Reid - UK**	
42	*Architecture*	**Johan H Bendz - Sweden**	
1A	*IS Governance Frameworks and Systems*	**Alison Holt - New Zealand**	
JWG with ISO/TC54	*Common Industry Format for Usability*	**M.F. Theofanos - USA**	

The current organisation chart is:



Two Specials Working Groups (SWG) have been created to handle Business Planning and Architecture:

SWG1	***Business Planning Group (Resolution 683)***
Convener	***François Coallier - SC7 Chairman***
Scope:	1. Support the Chair in the elaboration of directions and policies. 2. Assist the chair in the prompt resolution of issues. 3. Propose update to the JTC1/SC7 business plans and procedures. 4. Propose updates to JTC1/SC7 communications function. 5. Prepare procedures and organization responsibilities to ensure an integrated strategy planning, business planning, and management systems for JTC1/SC7.
Members:	• Mr Anukul Tamprasirt (Thailand) • Dr. Annette Reilly (USA) • Mr Jean Bérubé (Canada) • Dr. Y. Yamamoto (Japan) • Dr. Dan Lee (Korea) • Prof. Alastair Walker (South Africa) • Mr. Risto Nevalainen (Finland) • Mr. Antonio Coletta (Italy) • Dr. Gargi Keeni (India)

SWG5	Architecture Management
Chairman Convener	François Coallier - SC7 Chairman Cheryl Jones – USA
Scope:	1. Elaborate and Maintain JTC1/SC7 Architecture standing documents 2. Provide counsel to JTC1/SC7 Conveners and editors on standards architecture and vocabulary consistency issues 3. Recommend to JTC1/SC7 standard maintenance strategies 4. Report on its activities to the JTC1/SC7 BPG and AG 5. Include in its scope the IEEE systems and software engineering standards collection
Members:	• Kiyoshi Ogawa (Japan) • Garry Roedler (USA) • Bud Lawson (Sweden, INCOSE) • Terry Rout (Australia) • James Moore (IEEE-CS) • Peter Fagg (UK) • Serge Oligny (Canada) • Dennis Ravenelle (itSMF) • Max Shanahan (ISACA)

An Advisory Groups (AG) has been created to handle Life Cycle Process Harmonization:

Life Cycle Process Harmonization Advisory Group (LCPHAG)

1093	JTC 1/SC 7 instructs its Secretariat to establish a Life Cycle Process Harmonization Advisory Group (LCPHAG) to perform an architectural analysis and recommended framework for an integrated set of process standards in software and IT systems domains. The LCPAAG shall work in cooperation with SWG5. The Advisory Group shall make recommendations regarding the future content, structure and relationships of ISO/IEC 12207, ISO/IEC 15288 and their guides as well as other related SC 7 documents. LCPAAG should also consider the issues related to a possible process repository and associated issue by electronic publishing of the SC 7 Standards. The Group shall consult with and contain members from SWG 5, WG 10, WG 25, IEEE CS, INCOSE, and other interested organizations. The LCPHAG shall carefully consider and respond to the recommendation of the WG 7 Study Group presented in the document WG 7 N1103 “Strategy for Integration Phase of the Harmonization Project” and liaise with other stakeholders within ISO and IEC. A preliminary project plan is contained in SC 7 Nxxxx. A detailed plan for the first year will be presented at the Interim meeting in 2008. Contributions to the study group are invited from National Bodies and Liaison organizations that choose to contribute. The Advisory Group shall be co-chaired by Cheryl Jones (SWG 5) and Terry Doran (USA). Its membership shall consist of the Editorial Team for the current revisions of 12207/15288/24748) i.e. • James Moore (IEEE)	WG7

	• Garry Roedler (USA) • Dick Kitterman (INCOSE) • Dennis Ahern (USA) • Johan Amsenga (ZAF) as well as: • Robert Kormanak (Slovakia) • Noritoshi Murakami (Japan) • Matthew Young (AUS) • X2 (WG 10) • Melanie Cheong (South Africa, WG 25 subject to agreement) • Jonathan Earthy (UK, TC 159/SC4) Additional members can be added until 2008-07-15. Nominations must be sent to the Chair of the Advisory Group. The Advisory Group shall submit a final report by 2011-03-31 at which point it will be disbanded. The Advisory Group shall submit interim reports to SC 7 at each SC 7 Plenary meeting. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings.	

Two Liaison Groups are currently active:

SLG 1: Liaison to ISO TC22 SC3 WG16

1104	JTC 1/SC 7 establishes a Special Liaison Group (SLG1) to support its liaison officers to ISO TC22 SC3 WG16 with the mandate to: 1. advise its liaison officers on approach towards the liaison 2. assist its liaison officers in the prompt resolution of issues 3. assist in the review and of relevant ISO 26262 WDs and balloting documents relevant to SC7 program of work 4. encourage and establish where possible alignment of ISO 26262 processes with SC7 system and software lifecycle processes and process capability assessment to provide consistent standards 5. issue at least once a year liaison statement(s) and/or reports to ISO TC22 SC3 WG16 The JTC1/SC7 Special Liaison Group (SLG1) will be chaired and convened by Mr. Kiyoshi Ogawa (Japan). The SLG 1 membership shall be composed of: . Dr. Kiyoshi Ogawa (Japan) . Mr. Antonio Coletta (Italy) . Prof Bernd Hindel (Germany) . Mr Alec Dorling (UK) . Mr Fabrizzio Fabrini (Italy) . Mr Risto Nevalainen (Finland) . Dr. Mizuguchi Daichi(japan) . Dr. Klaudia Dussa-Zieger(German) . Mr. Alastair Walker(South Africa) . Mr. Ravindra Nath(India)	WG10

SLG 2: Liaison to JTC 1 SC27

1105	JTC 1/SC 7 establishes a Special Liaison Group (SLG2) to support its liaison officers to JTC 1 SC27 with the mandate to: 1. advise its liaison officers on approach towards the liaison 2. assist its liaison officers in the prompt resolution of issues 3. assist in the review and of relevant SC27 WDs and balloting documents relevant to SC7 program of work 4. respond, if required, to SC27 liaison statements and reports 5. issue at least once a year liaison statement(s) and/or reports to JTC 1/SC 27 6. encourage and assist JTC 1/SC27 to maintain compatibility between their standards and JTC 1/SC7 standards The JTC1/SC7 Special Liaison Group (SLG2) will be chaired and convened by Mr. Satoshi Fushimi (Japan). The SLG 2 membership shall be composed of: • Mr Jim Moore (IEEE-CS) • Mr Johann Amsenga (South Africa) • Alain Bonneaud (Cote d'Ivoire) • Pierre Thory (France)	BPG

Establishment of ad hoc IT service management mapping group

1200	JTC1 SC7 instructs its Secretariat to establish an ad hoc group to implement the recommendations from SC7 Study Group 1099, Service and systems management standards and their integration into SC7. This group is to provide the basis for cooperative work by SC7 with owners of non-ISO copyright material used in IT service management, in order to work on mapping of SC7's service management standards and non-ISO standards methods and frameworks used in IT service management. Consideration to be given to including mapping documents as annexes in IT service management standards or technical reports in the ISO/IEC 20000 series. The ad hoc group is to do the following: **Mapping methods:** ◦ Methods for mapping of products should take into consideration the techniques developed/being developed by ISO/IEC JTC1 SC7's Lifecycle process harmonisation group. ◦ The techniques and tools identified in the work being done by WG25 and WG10 on mapping process reference and process assessment to management system standard ISO/IEC 20000-1. **Cooperation with non-ISO copyright owners:** ◦ SC7's ad hoc group to agree options for cooperative work with other organisations mapping ISO products against non-ISO products. Non-ISO organisations contacted will be: ◦ OGC (for ITIL, which is UK Crown copyright) ◦ ISACA (for COBIT, which is ISACA's copyright) **Additional cooperation on non-ISO copyright:**	SC7 Sec.

	◦ SC7 ad hoc group to consider longer term work on aligning or integrating SC7's IT service management products and non-ISO products. **The results of Study Group 1099 to be discussed with:** ◦ ISO TC 176 (for ISO 9001) ◦ JTC1/SC7 (for ISO/IEC 27001) ◦ OGC (for ITIL) ◦ ISACA (for COBIT). The ad hoc group will be chaired by Jenny Dugmore, Convener SC7 WG25. Ad hoc group membership will be: Shigenobu Katoh (Japan for liaison to TC 176) Alec Dorling (UK) – for WG10 Srinivasan Ramachandran (India) Additional members and contributions are solicited from all working groups, national bodies and member liaisons. Additional members may be added until 2009/07/31. Nominations should be sent to the SC7 Secretariat. The ad hoc group will co-locate with WGs 10, 21, 23 and 25 and meet at the Lima Interim meeting 2009. The ad hoc group shall report by 2010-4-15.	

The following Study Groups are currently active:

Study Group on the applicability of the India National Body Quality Framework for Software Processes Methodology

1201	JTC 1/SC 7 instructs its Secretariat to establish a Study Group to investigate the applicability of the Quality Framework described in 07N4291 to the collection of SC 7 standards and to recommend a way of integrating the concepts contained in the Quality Framework into the SC 7 products. The study group shall take into consideration: • 07N4291, India National Body contribution titled *Quality Framework for Software Processes Methodology* • Product sets of WG 6 and WG 7 It shall also assess the needs for this type of standards in the market The Study Group will be chaired by Prof K V Nori (India) and the co-chair is Mr N. Swaminathan (India). The Study Group membership includes:	SC7 Sec.

	• Garry Roedler (SWG5) • Dr. Azuma (WG 6) • T Komiyama (Japan) • N.Bevan (UK) • D.Zubrow (USA) • Markku Tukiainen (Finland) • Sam Redwine (WG 7) • Jonathan Earthy (UK) • Sudha Nagarajan (India) • Anand Kumar (India) • Alistair Walker (South Africa) • D. Wagh (India) • Ravindra Nath (India) • Vikram Jamwal (WG7) • Norbert Bollow (Switzerland) • Joachim von Linde-Suden (Switzerland) • Barbara Huissman (Canada) • Vicky Hailey (Canada) • James Moore (IEEE CS) Additional membership and contributions are solicited from all Working Groups, National Bodies, and liaison organizations. Additional members can be added until 2009-07-31. Nominations should be sent to the SC 7 Secretariat. The study group will co-locate with WG 6. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. The Study Group shall submit its report by 2010-04-15.	

Continuation of SWG5 Agile Study Group

1202	JTC 1/SC7 authorizes the extension of the SWG5 Agile Study Group (Resolution 1095) to detail the possible directions of work relating to agile software processes within SC 7. Additional membership and contributions are solicited from all Working Groups, National Bodies, and liaison organizations. Additional members can be added until 2009-07-31. Nominations should be sent to the SC 7 Secretariat. A report including, if pertinent, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	WG7

Study Group on Service Oriented Architecture (SOA)

1203	JTC1/SC7 instructs its Secretariat to establish a study group on the process and methods components of Service Oriented Architecture (SOA). SOA is an enterprise application architecture style based on the reuse and composition of loosely coupled services available through an intranet or the Internet.	Chinese NB

	The terms of reference of this study group are to assess: · Whether existing and upcoming SC7 standards exist and adequately address this area of interest. · The availability and coverage of other standards from other relevant bodies. · The perceived need for standards in this area. The Study Group will consider, but not be limited to, the following documents and standards: • ISO/IEC 15288 • ISO/IEC 12207 • ISO/IEC 20000 • ISO/IEC 27000 Series • ISO/IEC 42000 series • Project 15026 Work done by the OMG, IEEE-CS and other external organisations in this area will also be assessed. The Study Group is to be chaired by Yuan Yuan (China). Other members of the Study Group will include: • Wang Chaoyang (China) • Wu Jie (China) • Ma Dianfu(China) • Zhong Lina(China) • Yang Yun(China) • Prakit sangpa (Thailand) • Anukul Tamprasirt (Thailand) • Anand Prakash(India) • Harsh Sharma (India) • Dr B V Kumar (India) • Jyoti Namjoshi (India) • Padmavathy Ramesh(India) • Pierre THORY (France) • Juan Garbajosa (Spain) • Bllanca Gil(Mexico) • TBD (IEEE-CS) The Study Group will include nominated members from WG1A, WG7, WG25 and WG42; other Working Groups and Liaison Organizations are invited to nominate members. Additional members can be added until 2009-07-31; nominations must be sent to the SC7 Secretariat. The study group will operate using virtual communications with a meeting to be convened during the interim meeting in Peru, November 2009 co-located with WG25, WG7 and WG1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study Group on IT Enabled Services (ITES)

1204	JTC1/SC7 instructs its Secretariat to establish a study group on IT Enabled Services (ITES).	Indian NB

ITES, Information Technology Enabled Services encompasses the delegation of one or more IT-enabled business processes to a service provider who, in turn, uses an appropriate shared technology infrastructure. Such a service provider owns, administers and manages the outsourced processes in accordance with predefined and measurable performance metrics.

This covers diverse areas like finance, HRO, administration, health care, BFSI , supply chain management , travel and hospitality , media , market research , analytics , telecommunication, manufacturing etc. These services provide business solutions to customers across the globe and form a part of the core service delivery chain for clients.

The terms of reference of this study group are to:

- Define the scope of ITES and its market;
- Identify and consult key stakeholders;
- Assess the need for generic standards and, if relevant, elaborate a draft NWIP.

The Study Group will consider, but not be limited to, the following documents and standards:

- 07N4292
- ISO 9001: 2008
- ISO/IEC 20000
- ISO/IEC 15288
- ISO 27001
- BS 25999
- COPC standard
- eSCM
- MBNQA / EFQM
- CMMI® for Services, Version 1.2

The Study Group is to be chaired by Raju Bhatnagar (India). Other members of the Study Group will include:

- Claire Brereton - Australia
- Erin Casteel - Australia
- Chai Afeng - China
- Zhou Ping (Co-Chair) - China
- Mika Johansso - Finland
- Jagdish Ramaswamy - India
- Rangaraj Sriramulu (co-chair) - India
- Ajith Thomas (co-chair) - India
- Shibashis Chakraburtty - India
- Pran Banerjee - India
- G S Vijayakumar - India
- Marc Taillefer (Canada)
- Anand Prakash - India
- Krzysztof Baczkiewicz - Poland
- Lynda Cooper - UK (WG 25)

The Study Group will include nominated members from WG1A, and WG25; other Working Groups and Liaison Organizations are invited to nominate members. Additional members can be added until 2009-07-31; nominations must be sent to the SC7 Secretariat.

The Study Group will operate using virtual communications with a meeting to be convened during the interim meeting in Peru, November 2009 co-located

	with WG25, WG7 and WG1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study group to investigate the possibility of new standards in the area of embedded systems

1205	JTC 1/SC7 instructs its Secretariat to establish a study group to investigate the possibility of new standard for "Framework of establishing coding guidelines for embedded system development". The study group shall make a possible NWIP and supporting draft, and shall report to AG at next Niigata Plenary. The study group will be chaired by Dr. Yoshikazu Yamamoto (Japan). Study group membership includes: · Toshiaki Kurokawa (Japan) · Anukul Tamprasirt (Thailand) · James W. Moore (SC 7 liaison to ISO/IEC JTC 1/SC 22) · Yuyu Yuan (China) · R Venky (India) Membership and contributions are solicited from all Working Groups, National Bodies, and liaison organizations. Additional members can be added until 2009-07-31. Nominations should be sent to the SC7 Secretariat. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings if necessary. The study group is also authorized to seek additional members from ISO/IEC JTC 1/SC 22, notably including a representative of SC 22/WG 14 (C Language).	SC7 Secretariat

Continuation of study group to investigate the possibility of new standards or guidance in the area of system integration

1206	JTC 1/SC7 instructs its Secretariat to extend its study group to investigate the possibility of new standards or guidance in the area of system integration (Resolution 1094). The study group shall make recommendations on scope and direction for SC7 activities in this area of interest. The study group shall take into consideration: • Whether existing and upcoming SC7 standards exist and adequately address this area of interest. • The availability and coverage of other standards from other relevant bodies. • The perceived need for standards in this area. The study group will be chaired by Dennis Ravenelle (itSMF International). Study group membership includes: • Cheryl Jones (SWG5) • Dick Kitterman (INCOSE) • Stewart Arnold (UK)	SWG5

	• Pradeep Waychal (India) Membership and contributions are solicited from all Working Groups, National Bodies, and liaison organizations. Additional members can be added until 2009-07-31. Nominations should be sent to the SC7 Secretariat. The study group will co-locate with SWG5 and WG7. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study group to investigate expanded guidance for process description

1207	JTC 1/SC7 instructs its Secretariat to establish a study group to identify, review the needs for, and recommended practice in process description for the purposes of implementation, assessment, improvement and mapping of processes. This scope is contained within the area of systems and software engineering [and its management]. The study group shall make recommendations on scope and direction for SC7 activities in this area of interest including revisions and extensions to ISO TR 24774. The study group shall take into consideration: • Experience with process description in work within SC7 • The process description needs and requirements of the full set of SC7 stakeholders. • Whether existing guidance in SC7 standards adequately address this area of interest. • The level of required, recommended, and acceptable content for SC7 processes. • Developments in theory and practice in this domain. The study group will be chaired by Jonathan Earthy (UK). Study group membership includes: • Jonathan Earthy TC159, Chair • Cheryl Jones (SWG5) • Dick Kitterman (INCOSE) • Jim Moore (IEEE) • Terry Doran (LCPHAG) • Garry Roedler (WG7) • Terry Rout (WG10) • Jean Berube (WG24) • Shirley Lacey (WG25) • Johan Bendz (WG42) The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. Additional members can be added until 2009-07-31. Nominations should be sent to the SC7 Secretariat.	SWG5

	A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study group on the need and opportunity for standardisation of tools and methods of software testing

1208	JTC1/SC7 instructs its Secretariat to establish a joint study group to research the need and the opportunity for standardisation of tools and methods of software testing, and, if a need is established, to draft a new work item for consideration with its report. The objectives of this group are: • Investigate the best practices of industry related to the tools and methods of software testing including ▪ Fortune 1000 companies ▪ Tool vendors • Assess how ISO/IEC, IEEE, and other standards address the tools and methods of software testing • Make recommendations on the creation of new standards or TRs Its membership will consist of: ▪ Ke Han, China ▪ Sungwon Kang, Korea ▪ Gargi Keeni, India ▪ Byong Lee, Korea ▪ Dan Lee, Korea ▪ Chao Liu, China ▪ Alastair Walker, South Africa ▪ Hongcheng Wang, China ▪ Yuyu Yuan, China ▪ Arun Melkote (India) ▪ Sylvia Veeraraghavan (India) ▪ Chai Afeng (China) ▪ Susan Burgess Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. This study group will be chaired by Sungwon Kang (Korea) and co-chaired by Susan Burgess (USA), Yuyu Yuan (China), and Byong Gul Lee (Korea). A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	WG4

Study Group to Start the Investigation into the Possibility of Additional Standards or Guidance in the Area of IS Governance for Cloud Computing

1209	JTC1/SC7 instructs its Secretariat to establish a study group to start the investigation into the possibility of additional standards or guidance in the area of IS governance of cloud computing ("A style of computing where IT-related capabilities are provided on demand as a scalable service to end customers."); and if a need is established to draft a

	new work item for consideration with its report. As part of the scope of this study group, the direction of future activities will be determined to see if its scope is contained in the area of software and systems engineering; noting that target is the principles and policies of cloud computing. The study group arises from a documented requirement within SC7 (as stipulated in the AG Meeting on 24-May-2009), and also as a result of expressed needs within India, New Zealand and the United States. The study group shall liaise closely with the JTC1/WG6 study group addressing Corporate Governance of IT. The Study Group shall take into consideration: ISO/IEC15504, ISO/IEC 31000 ISO/IEC15489 ISO/IEC 20000 ISO 27000/1/2/3 ISO/IEC 38500 ISO 9000/1/4 and other relevant national developments in the area of IT governance as applicable to cloud computing. There are several organizations that are working in this area that should be investigated for possible liaisons: ISACA and ITGI OECD IEEE OCEG NIST Other interested TCs within ISO and SCs within JTC1. The study group will make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR. Its membership will consist of: Myles Ward (New Zealand, Convener) Zhou Ping (China, Co-Convener) R. Srinivasan (India, Co-Convener) Lenka Gondova (Slovakia) Alison Holt (New Zealand) B.L.V. Rao (India) Padmini M. (India) Erik Johnson (United States) Robert Stroud (itSMF) Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. The study group will be chaired by Myles Ward (New Zealand) and co-chaired by Zhou Ping (China) and R. Srinivasan (India) and will submit a full report by 2010 May Plenary in Japan. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. The study group will meet concurrently

	with WG 1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.

Study Group to Investigate the Possibility of Additional Standards or Guidance in the Area of IS Governance for Service Providers

1210	JTC1/SC7 instructs its Secretariat to establish a study group to start the investigation into the possibility of additional standards or guidance in the area of IS governance of Service Provider ("An entity whose objective is to deliver services according to agreements with an internal or external consumer entity."); and if a need is established to draft a new work item for consideration with its report. As part of the scope of this study group, the direction of future activities will be determined to see if its scope is contained in the area of software and systems engineering; considering that target is the principles and policies of service providers. The study group arises from existing requirements in New Zealand, India, Netherlands, Slovakia and the United States. The study group shall liaise closely with JTC1/ WG6. The Study Group shall take into consideration: • ISO/IEC15504, ISO/IEC 31001 • ISO/IEC15489 • ISO/IEC 20000 • ISO 27000/1/2/3 • ISO/IEC 38500 • ISO 9000/1/4 • ISO 25000 • ISO 24773 • ISO 24744 • ISO 16085 • ISO 12207 and other relevant national developments in the area of governance for Service Providers. There are several organizations that are working in this area that should be investigated for possible liaisons: • ISACA and ITGI • OECD • IEEE • OCEG • NIST • Other interested TCs within ISO and SCs within JTC1.	

	The study group will make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR. Its membership will consist of: • Myles Ward (New Zealand, Convener) • Erik Johnson (United States, Co-Convener) • Lenka Gondova (Slovakia) • Alison Holt (New Zealand) • N. G. Raju (India) • Yvette Backer (Netherlands) • Frances van Haagen (Netherlands) • Robert E. Stroud (itSMFi) • Nick Fright (United Kingdom) Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. The study group will be chaired by Myles Ward (New Zealand) and co-chaired by Erik Johnson (United States) and will submit a full report by 2010 May Plenary in Japan The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. The study group will meet concurrently with WG 1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study Group to Investigate the Possibility of Additional Standards or Guidance in the area of IS Governance for IT Audit

1211	JTC1/SC7 instructs its Secretariat to establish a study group to start the investigation into the possibility of additional standards or guidance in the area of IS governance of IT Audit ("The process of collecting and evaluating evidence of an organization's IT systems, and its common practices and operations, against a defined set of controls and objectives.") and if a need is established to draft a new work item for consideration with its report. As part of the scope of this study group, the direction of future activities will be determined to see if its scope is contained in the area of software and systems engineering appropriate to IT audit. The study group arises from existing requirements in New Zealand, India, and Slovakia. The study group shall liaise closely with JTC1/WG6. The Study Group shall take into consideration: • ISO/IEC15504, ISO 31001 (preparatory stage) • ISO/IEC15489 • ISO/IEC 17021 • ISO/IEC 17025 • ISO/IEC 20000	

	• ISO 27000/1/2/3/6 • ISO/IEC 38500 • ISO 9000/1/4 • ISO 19011: 2002 • ISO/IEC TR 15443-1:2005 and other relevant national developments in the area of audits and IT Audit. There are several organizations that are working in this area that should be investigated for possible liaisons: • ISACA and ITGI • OECD • IEEE • OCEG • NIST • Other interested TCs within ISO and SCs within JTC1. The study group will make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR. Its membership will consist of: • Cdr V Krishnan (India, Convener) • Lenka Gondova (Slovakia, Co-Convener) • Myles Ward (New Zealand) • Alison Holt (New Zealand) • Erik Johnson (United States) • Frances van Haagen (Netherlands) • Robert Stroud (itSMF) Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. The study group will be chaired by Cdr V Krishnan (India) and co-chaired by Le Gondova (Slovakia) and will submit a full report by 2010 May Plenary in Japan The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. The study group will meet concurrently with WG 1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study Group to Investigate the Possibility of Additional Standards or Guidance in the Area of IS Governance for Enterprise Architecture

1212	JTC1/SC7 instructs its Secretariat to establish a study group to start the investigation into the possibility of additional standards or guidance in the area of IS governance of Enterprise Architecture ("The organizing logic for functional or business processes and infrastructure reflecting the organization's operating model."); and if a need is established to draft a new work item for consideration with its report. As part of the scope of this study group, the direction of future activities will be	

	determined to see if its scope is contained in the area of software and systems engineering; noting that target is the principles and policies of cloud computing. The study group arises from an existing requirement within SC7 and within the India and US. The study group shall liaise closely with JTC1/ WG6. The Study Group shall take into consideration: • ISO/IEC 15504, • ISO/IEC 20000 • ISO 27000/1/2/3 • ISO/IEC 38500 • ISO 9000/1/4 • ISO/IEC 42010 • ISO 19439 • ISO 19440 • Gartner Enterprise Architecture Process: Evolution 2005. • IEEE 1471 • The Zachman Framework™ • EABOK (The Guide to the Enterprise Architecture Body of Knowledge) • RM-ODP - the Reference Model of Open Distributed Processing (ITU-T Rec. X.901-X.904 | ISO/IEC 10746) and other relevant national developments in the area of IT governance of governance for Enterprise Architecture. There are several organizations that are working in this area that should be investigated for possible liaisons: • ISACA and ITGI • OECD • IEEE • OCEG • NIST • Other interested TCs within ISO and SCs within JTC1. The study group will make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR. Its membership will consist of: • Alison Holt (New Zealand, Convener) • Erik Johnson (United States Co-Convener) • Lenka Gondova (Slovakia) • Myles Ward (New Zealand) • Robert Stroud (itSMFi) • Veeresh Vadiguri (India) • Hari Nivas (India) Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. The study group will be chaired by Alison Holt (New Zealand) and co-chaired by Erik Johnson (United States) and will submit a full report by 2010 May.	

	Plenary in Japan. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. The study group will meet concurrently with WG 1A. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	

Study Group to investigate Software Engineering Certification Schemes and to define the scope of new standards

1213	JTC 1/SC7 instructs its Secretariat to establish a study group to perform a preliminary survey and analysis on existing software engineering personnel certification schemes in software engineering.The study group will establish contact and identify liaisons with organizations involved in certification schemes. The study group will be co-chaired by Harsh Sharma (BIS, India), Pieter Botman (IEEE), and Hiroshi Mukaiyama (Japan) Study group membership includes: • Hironori Washizaki (Japan) • Juan Garbajosa (Spain) • Erin Casteel (Australia) • Klaudia Dussa-Zieger (Germany) • Chai Afeng (China) • Markku Tulkanien (Finland) • Claude Laporte (Canada) Additional members can be added until 2009-07-31. Nominations must be sent to the SC7 Secretariat. The group is authorized to conduct its work by correspondence, telephone conferencing, web conferencing and meetings. A report including, if pertinent, a draft NWIP and standard outline, shall be submitted to the SC7 Secretariat no later than 2010-04-15.	WG20