STRATEGIC BUSINESS PLAN
ISO/TC 10

EXECUTIVE SUMMARY

Scope of ISO/TC 10 is standardisation and co-ordination of technical product documentation (TPD) (including technical drawings);

- manually produced or computer based
- for technical purposes throughout the product life cycle
- to facilitate;
  - preparation
  - management
  - storage
  - retrieval
  - reproduction
  - exchange and
  - use.

ISO/TC 10 is striving at providing a complete set of International Standard specifications, based on and created by international consensus. This ensures a well-based set of globally accepted basic specifications in support of all branches of industry, especially in support of the International, regional and national standards.

Experienced benefits of implementing TPD standards:

- reduced costs;
- assured quality;
- shortened elapsed time from design concept to market product;
- providing a platform for communication;
- reduced risk of misinterpretation.
1. INTRODUCTION

1.1 ISO technical committees and business planning

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure which forms part of a major review of business. The aim is to align the ISO work programme with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 International standardization and the role of ISO

The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: ISO (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of IEC (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of ITU (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 164 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the International Standard.

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its Technical Committees are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

ISO offers also the International Workshop Agreement (IWA) as a deliverable which aims to bridge the gap between the activities of consortia and the formal process of standardization represented by ISO and its national members. An important distinction is that the IWA is developed by ISO workshops and fora, comprising only participants with direct interest, and so it is not accorded the status of an International Standard.

2. BUSINESS ENVIRONMENT OF THE ISO/TC

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

2.1.1 General

ISO/TC 10 activities takes place in a market where:

ISO/TC 10 Strategic business plan
• specifications for design and manufacturing in all disciplines are of major importance, e.g. construction, engineering, shipbuilding, oil industry and aeronautics;
• there is a need for global understanding, communication and application of standards;
• the use of computer aided systems prevails, e.g. CAD, CAM, PDM;
• the tendency to use sub-contracting, outsourcing and consultants is increasing;
• the implementation of quality management systems, according to the ISO 9000-series (including supporting standards), is of high priority to all industries;
• the technical product documentation serves as a basis for interpretation of contracts.

This part of the business plan describes the environments in which the standards are created, developed and utilized. The following four environments have been identified as especially important.

Note: Technical product documentation is called “TPD” hereafter.

### 2.1.2 Industrial, IT, public and standardisation environment

ISO/TC 10 is striving at providing a complete set of International Standard specifications, based on and created by international consensus. This ensures a well-based set of globally accepted basic specifications in support of all branches of industry, especially in support of the International, regional and national standards.

The **industrial environment** is continuously undergoing technical changes within production and TPD technologies, merging and establishment of multinational companies, etc.

• Participants in standardization activities need to see benefits from their input, this being important for them and the credibility and reputation of ISO;
• Industries active in different disciplines require field independent standards for improved utilization of resources;
• The constant demand for shorter time scales from design concept to end-product requires higher efficiency in the exchange of TPD information.

The **IT environment** (Information Technology) plays an increasing role for electronically based TPD.

• The rapid development within the IT community requires stable ISO/TC 10 TPD standards so as to avoid market “standards”;
• The transition of manually produced documentation to the trend of utilizing IT technology requires the reliable retrieval of TPD information, regardless of media involved;
• To make systems compatible, the development of standards for interfaces within different applications has resulted in STEP for product model data, EDIFACT for business data, SGML and XML for documents. Within these activities, rules for documentation have to be created, maintained and controlled.

The **public environment**, which is responsible for technical education of personal within TPD, e.g. draughtsmen and engineers, aspects of which often being financed by the society.

The **standardization environment** in which ISO/TC10 is operating and where ISO is dominant is constantly being challenged by other organizations.

ISO/TC 10 Strategic business plan
2.1.3 Legal
The situation where the technical product documentation is regarded as a binding contract is strongly emphasised in a world-wide business environment where outsourcing of production tasks and use of sub-contractors is common and increasing. The organization of companies into geographically separated divisions is also increasingly common and often corrupts the traditional internal communication.

2.1.4 Economical
In the market economy of the 21st century, technical product documentation is the only stable means of communication. Accordingly, the application of standards for technical product documentation is of vital importance for ensuring the fulfilment of the specified requirements for the product and the final assembly.

2.1.5 Technical
Computer based technology is increasing and the opportunity of human interaction is thus reduced. Consequently, there is a need to model relevant knowledge for integration into CAD/CAM/CAQ-systems.

The potential users are industry in general. These users need to be provided with globally standardised tools for communication. ISO/TCs providing standards for the above user segment shall be advised of the status of the technical product documentation standardisation and receive the assistance and close co-operation of ISO/TC 10. Special attention shall be given to those ISO/TCs, which are handling technical product documentation related matters within their scopes and in the field of application of their standards.

Derived from the above, the total size of the market is unknown, but must be immeasurably immense.

2.1.6 International factors
The importance of international trade in the market sector has been addressed, together with an analysis of related ongoing regional standardisation activities (especially within CEN) and their economic impact. Consequently, the work program and not least the priorities of ISO/TC 10 are co-ordinated with those of CEN and have been determined largely by the market environment.

2.2 Quantitative Indicators of the Business Environment
The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the ISO/TC:

To estimate the magnitude of the use of ISO/TC 10 standards is complex. TPD standards are necessary for the specification of any product within each discipline covered by the scope of ISO/TC 10. All personnel engaged in design, manufacturing, construction or verification are implicitly users of TPD standards. ISO/TC 10 standards are also essential within the education system.
3. BENEFITS EXPECTED FROM THE WORK OF THE ISO/TC

Implementation of TPD standards:
- reduces costs;
- assures quality;
- shorter elapsed time from design concept to market product;
- provides a platform for communication;
- reduces the risk of misinterpretation.

Information Technology (IT) usage within technical product documentation has highlighted several topics, of which the following have been identified as being of particular importance:
- classification;
- meta data;
- document management data;
- document technical contents data;
- product modelling.

Available standards for TPD include:
- Drawing rules - the presentation of technical drawings and dimensioning;
- Documentation rules – the classification of products, systems, documents etc.;
- Management of technical product information – e.g. storage, retrieval and exchange;
- Product modelling;
- Classification of documents, systems etc.;
- Terminology – a unified language of documentation;
- Symbology;
- Media and drawing equipment for drawings – draughting film, tracing paper, pens etc.

Environmental aspects:
ISO/TC10 standards deal with procedures, techniques and formats for technical product documentation. As such they do not have direct impact on the environment. Indirectly, this set of standards affects the environment in the following manner:

- By following ISO/TC10 standards, companies may manufacture their products more efficiently, with less scrap and rework. This in turn reduces added materials costs as well as energy required for production of additional material required to account for the scrap and rework.

- By following ISO/TC10 standards, especially those dealing with electronic file formats, companies may produce their products with less paper documentation. This reduces the need for the production, use and disposal of unnecessary paper.

- By following ISO/TC10 standards, especially those dealing with electronic file formats, companies may generate and distribute documentation more quickly. This reduces human energy expended and ancillary costs associated with shipping and handling of documentation among suppliers, customers and producers needing the documentation.

ISO/TC 10 Strategic business plan
4. REPRESENTATION AND PARTICIPATION IN THE ISO/TC

4.1 Membership

ISO/TC 10 has participation from 19 P-members and 36 O-members.

A current list is found on ISO/TC 10 Participation list

4.2 Analysis of the participation

Among the P-members there are only a few participating members representing the developing countries, whereas several of the O-members do. The reasons for this lack of active participation of these developing countries can rely on a guess, which would include factors such as lack of travel funding and lack of significant major international industries.

The P-members represents a well-balanced geographical spread that encompasses North America, South America, East Asia and Europe.

The industrial key players have a predominant geographical distribution restricted to North America, East Asia and Northern Europe.

ISO/TC 10 have liaisons with several other technical committees.

The most pertinent internal ISO liaisons are:

- ISO/TC 59/SC 2, Building construction - Terminology and harmonization of languages;
- ISO/TC 184/SC 4, Automation systems and integration - Industrial data;
- ISO/TC 213, Dimensional and geometrical product specifications and verification

IEC/TC 3, Information structures, documentation and graphical symbols, is the sister committee within IEC, with which ISO/TC 10 has joint projects.

From the outset, the major strategic objective of ISO/TC 10 is to provide acceptable solutions for the global market. Consequently, ISO/TC 10 has an efficient liaison with CEN, using the Vienna agreement for the continued progress of work under ISO lead. In lack of an established CEN committee the work is channelled through:

- CEN/SS F01 – Technical drawings
- CEN/SS F16 – Graphical symbols

5. OBJECTIVES OF THE ISO/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 Defined objectives of the ISO/TC

ISO/TC 10 shall provide an open forum for all ISO member bodies for the processing, implementation and maintenance of ISO Standards relevant to technical product documentation, which will facilitate global trade and with the intention of sustaining long term world-wide cooperation.
The following objectives are those that ISO/TC 10 has selected as the most important, in order to achieve greatest impact on all standard users and developers:

- TPD standards shall be co-ordinated and have an overall high degree of mutual consistency and conformity especially regarding terminology, ISO 9000 quality requirements, legal and contractual aspects;
- TPD standards shall be published in advance or simultaneously, at the time when the actual IT technologies are made available among standard users;
- TPD standards shall facilitate exchange of information between all involved parties in the whole life-cycle of a product;
- TPD standards shall be developed within the time schedule laid down in the ISO Directives using high qualified project leaders and experts in a cost-efficient manner;
- TPD standards shall support implementation of IT within all fields of application;
- develop standards supporting development of IT tools and systems for TPD;
- assess and meet the market requirements for TPD standards;
- improve world-wide representation of experts;
- improve communication within the ISO/TC 10 structure;

5.2 Identified strategies to achieve the ISO/TC’s defined objectives

5.2.1 History
ISO/TC 10 was created in 1947 to continue the work of ISA/TC 10, which started its work in the 1920s.

In 1999 the secretariat was transferred from Germany (DIN) to Sweden (SIS).

5.2.2 Identified strategies to achieve the defined ISO/TC 10 objectives.
ISO/TC10 has selected the following key strategic areas as basis for standardisation work and management of ISO/TC 10:

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<tr>
<th>APPROACH</th>
<th>KEY STRATEGIES</th>
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<tbody>
<tr>
<td>&quot;WHAT TO DO&quot;</td>
<td>FUTURE STANDARDIZATION</td>
</tr>
<tr>
<td>&quot;HOW TO DO&quot;</td>
<td>ORGANIZATION MANAGEMENT WORK MANAGEMENT STANDARDIZATION MANAGEMENT</td>
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For each strategic area, specific strategies have been defined in the following sections.

**Improve impact of ISO/TC10 standards**
To concentrate available resources to standardisation fields where ISO/TC 10 standards achieve greatest impact.

**Improve knowledge and use of ISO/TC10 TPD standards**
To develop guidelines, manuals, textbooks covering e.g. CAD drawing practice based on ISO/TC 10 TPD- standards, such publications being identified as important for technical institutes at all levels.

ISO/TC 10 Strategic business plan
5.2.3 Basic philosophy for management of the scope

**Strategic impact of ISO/TC 10 basis standards**
ISO/TC 10 shall concentrate available resources to fields where ISO/TC 10 standards achieve greatest impact among standard users.

**Co-operation in work planning**
ISO/TC 10 shall continue the close co-operation with IEC/TC3 and ISO/TC 213 to agree on common procedures for co-ordination of strategic planning, evaluation of new work items of common interest etc.

**New Project evaluation**
Within ISO/TC 10 new work items (NP) shall be evaluated on TC level by ISO/TC 10 Co-ordination Group (CORG) and given priority in relation to the present strategic work programme, available resources etc. No NP shall be started unless qualified project leaders and experts are available, to satisfactorily monitor the work according to the ISO Directives.

**Standard development**
New standards shall be developed by Working Groups, project leaders or project groups established for each project.

**Terminology**
ISO/TC 10 shall maintain an ISO/TC 10 terminology and continuously work to unify and improve the consistency in language usage.

**Quality of TPD standards**
ISO/TC 10 standards shall be structured and written in a language, which gives easy access and output for end user. ISO/TC 10 also gives high priority to user friendliness in its standards.

**Avoid duplication in standardisation works.**
The ISO/TC 10 CORG ensures that duplication of work shall not take place.

5.2.4 Operation and organisation

**Improve ISO/TC 10 organisational competence regarding quantity and quality of standardisation work.**
Acting since 1999 in the full work of ISO/TC 10 is ISO/TC 10 CORG (co-ordination group).

ISO/TC 10 CORG consists of the Chairpersons and secretaries of ISO/TC 10 and its subcommittees and working groups, the secretaries of the committees in liaison with ISO/TC 10, as well as of individual project leaders for topics discussed. CORG ensures that no overlapping work is done, that gaps and contradictions in existing standards are identified and corrected. It also decides on allocation of new work items for the whole TC.
The tasks of ISO/TC 10 CORG are:

1. To determine if NPs within ISO/TC 10 is in line with the ISO/TC 10 strategy;
2. To establish and maintain a strategy for ISO/TC 10, to be incorporated into the business plan;
3. To review the structure of ISO/TC 10 in relation to the strategic objectives;
4. To keep aware of development tendencies within IT and TPD technologies;
5. To prepare a projected programme of work (future programme of work), e.g. digital modelling;
6. To establish and maintain an "expert profile" for ISO/TC 10 expertise;
7. To develop the use of state of the art technology for ISO/TC 10 internal work;
8. To be visible for environments outside ISO/TC 10; to co-operate with other relevant groups, i.e. other ISO Committees and organizations working in the same field.

Members of CORG are appointed in accordance with the rules in ISO/IEC Directives Part 1, Procedures for the technical work, sub-clause 1.13.2.

**Improve internal and external communication**
Since January 2000, ISO/TC 10 is operating fully electronically and focus all its activities on its website:

**ISO/TC 10 Homepage on ISO Livelink (Password-protected)**

From the first quarter of 2001 all subcommittees and their Working Groups are working electronically on ISO Livelink server.

**Improve co-operation relations with national member bodies and marketing**
ISO/TC 10 secretariat shall, at minimum every 6th month, prepare a "Newsletter" covering past and future events within standardisation. The “Newsletter” shall be distributed to all organisational units within ISO/TC 10 and made available on the ISO/TC 10 web site.

5.2.5 Meetings
ISO/TC 10 will convene on a regular basis, preferably once every year. However, the TC will also meet when questions of importance arises.

ISO/TC 10 will ensure that the subcommittees meet regularly to maintain the impetus of the work programme review.

Some subcommittees need co-ordination with other subcommittees, as well as with their own working groups. Therefore, concerted efforts are put into achieving have a “block” of meetings.

5.2.6 Resources
Due to the amount of very important tasks it is necessary that ISO/TC 10 make the best use of the resources available. ISO/TC 10 encourages its working groups to use WebEx meeting when possible.

**ISO/TC 10 Homepage on ISO Livelink**

5.2.7 Convenors/Project Leaders
Every identified project leader/convenor shall have sufficient support from his national member body or company/organisation in order to provide the CD-drafts in a correct form and to assist (resolution of comments and corrections/modifications of drafts) the secretariat of ISO/TC 10 up to the stage of FDIS.
6. FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC WORK PROGRAMME

It is assessed that the major risks for the timely completion of the work programme consist of (non-prioritised order):

- The need for French translations;
- The demands on the Secretariats to deliver the projects as ready for printing, means a lot more work and increased cost for the ISO/TC 10 secretariat (including SC secretariats) and the secretariats of the working groups. The time for completion of standards might be influenced, but for most working groups this is probably not a big problem;
- Vast need for internal tutorials-as-you-go;
- Inexperienced convenors and secretariats;
- Lack of negotiable pre-defined national mandates of delegates and experts;
- High frequency of change of national experts causing decreased national continuity;
- Some geographically conditioned reluctance to participate whole-heartedly.

7. STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

It should be noted that ISO/TC 10 is responsible for the maintenance of the standards prepared by ISO/TC 10/SC 9, Media and equipment for drawings and related documentation (disbanded in 1999) for media, instruments and equipment used for draughting, writing, handling, exchange, storage and reproduction of technical product documentation.

**ISO/TC 10 Technical product documentation**

*Responsible ISO Member:* Swedish Standards Institute, SIS  
*Chairperson:* Mr. Richard Lindqvist  
*Secretary:* Mr. Sven Radhe (Sweden)  
*Chairperson & Secretary Time Allocation Per Year = 30 % FTE*

**Scope:**  
Standardisation and co-ordination of technical product documentation (TPD), including technical drawings, manually produced or computer based for technical purposes throughout the product life cycle, to facilitate preparation, management, storage, retrieval, reproduction, exchange and use

**Actions for alignment with the business environment:**  
None.

ISO/TC 10/WG 16 – 3D models – Presentation of product definition data  
*Convenor:* Ms. Susan Hauger (USA)  
*Secretary:* Mr. Sven Radhe (Sweden)  
*ISO Member responsible:* American National Standards Institute (ANSI)

ISO/TC 10/ WG 17 – Vocabulary of terms and definitions  
*Convenor:* Mr. Neil Phelps (UK)  
*Secretary:* Ms. Sarah Kelly (UK)  
*ISO Member responsible:* British Standards Institution (BSI)
ISO/TC 10/WG 18 – Drawing and writing instruments
Convenor: Ms. Keiko Shioi (Japan)
Secretary: Mr. Yasuhide Haruta (Japan)
ISO Member responsible: Japanese Industrial Standards Committee (JISC)

ISO/TC 10/WG 19 – Harmonization ISO 129 and ISO 128 series
Convenor: Mr. Todd Taylor (US)
Secretary: Mr. Sven Radhe (Sweden)
ISO Member responsible: American National Standards Institute (ANSI)

ISO/TC 10/WG 20 – Design and documentation for manufacture, assembly, disassembly and end-of-life processing
Convenor: Mr. Brian Griffiths (UK)
Secretary: Ms. Sarah Kelly (UK)
ISO Member responsible: British Standards Institution (BSI)

ISO/TC 10/CORG – ISO/TC 10 Co-ordination Group
Convenor: Chairperson appointed as per meeting
Secretary: Mr. Sven Radhe (Sweden)
ISO Member responsible: Swedish Standards Institute, SIS

ISO/TC 10/JSG 1
Convenor: Mr. Hans Lilja (Sweden)
Secretary: Mr. Jukka-Pekka Rapinoja (Finland)
ISO Member responsible: Finnish Standards Association, SFS

Projects directly under ISO/TC 10:
See ISO Technical programme for ISO/TC 10 on ISO homepage (www.iso.ch);
ISO/TC 10 Technical programme

Standards directly under ISO/TC 10:
See Standards and/or guides of TC 10 on ISO homepage (www.iso.ch);
Published standards of ISO/TC 10

ISO/TC 10/SC 1 Basic conventions

Responsible ISO Member: British Standards Institution (BSI)
Chairperson: Mr. Neil Phelps (UK)
Secretary: Ms. Sarah Kelly (UK)
Chairperson & Secretary Time Allocation Per Year = 40 % FTE

Scope:
Standardisation of basic conventions for representation and data management of technical product documentation.

Convenor: Mr. Gordon Hayward (UK)

Projects directly under ISO/TC 10/SC 1:
See ISO Technical programme for ISO/TC 10/SC 1 on ISO homepage (www.iso.ch);
ISO/TC 10/SC 1 Technical programme

Standards directly under ISO/TC 10/SC 1:

ISO/TC 10 Strategic business plan
ISO/TC 10/SC 6 Mechanical engineering documentation

**Responsible** ISO Member: Standardization Administration of China, SAC
**Chairperson:** Mr. Decheng Wang (China)
**Secretary:** Ms. Xiaolu Zhang (China)
**Chairperson & Secretary Time Allocation Per Year = 30 % FTE**

**Scope:**
Standardisation of specific conventions for representation of technical product documentation in the field of mechanical engineering.

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**Convenor:** Dr. Dieter Liedtke (Germany)
**Secretary:** -
**ISO Member responsible:** DIN, Deutsches Institut für Normung

ISO/TC 10/SC 6/WG 16 – Dimensioning of structural metal work
**Convenor:** Mr. Jiawei Wu (China)
**Secretary:** Ms. Xiaolu Zhang (China)
**ISO Member responsible:** Standardization Administration of China (SAC)

ISO/TC 10/SC 6/WG 17 – Splines and serrations
**Convenor:** Mr. Xiaolu Zhang (China)
**Secretary:** -
**ISO Member responsible:** Standardization Administration of China (SAC)

ISO/TC 10/SC 6/WG 18 – Virtual assembly test
**Convenor:** Ms. Rongmei Nie (China)
**Secretary:** Ms. Xiaolu Zhang (China)
**ISO Member responsible:** Standardization Administration of China (SAC)

**Convenor:** Mr. Jiawei Wu (China)
**Secretary:** Ms. Xiaolu Zhang (China)
**ISO Member responsible:** Standardization Administration of China (SAC)

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Projects directly under ISO/TC 10/SC 6:
See ISO Technical programme for ISO/TC 10/SC 6 on ISO homepage (www.iso.ch);
ISO/TC 10/SC 6 Technical programme

Standards directly under ISO/TC 10/SC 6:
See Standards and/or guides of TC 10/SC 6 on ISO homepage (www.iso.ch);
Published standards of ISO/TC 10/SC 6
ISO/TC 10/SC 8 Construction documentation

**Responsible ISO Member:** Swedish Standards Institute, SIS  
**Chairperson:** Dr. Kurt Löwnertz  
**Secretary:** Ms. Annika Stenmark (Sweden)  
**Chairperson & Secretary Time Allocation Per Year** = 30 % FTE

**Scope:**  
Standardisation of specific conventions for representation and data management of technical product definition in the field of architecture, structural engineering, building services engineering, civil engineering, landscaping, regional planning and town planning.

ISO/TC 10/SC 8/WG 16 – New forms of construction documentation  
**Convenor:** Dr. Kurt Löwnertz  
**Secretary:** Ms. Annika Stenmark (Sweden)  
**ISO Member responsible:** Swedish Standards Institute, SIS

Projects directly under ISO/TC 10/SC 8:  
See ISO Technical programme for ISO/TC 10/SC 8 on ISO homepage (www.iso.ch);  
ISO/TC 10/SC 8 Technical programme

Standards directly under ISO/TC 10/SC 8:  
See Standards and/or guides of TC 10/SC 8 on ISO homepage (www.iso.ch);  
Published standards of ISO/TC 10/SC 8

ISO/TC 10/SC 10 Process plant documentation and TPD symbols

**Responsible ISO Member:** DIN Deutsches Institut für Normung  
**Chairperson:** Mr. Helmut Wank (Germany)  
**Secretary:** Mr. Gunnar Hanschke (Germany)  
**Chairperson & Secretary Time Allocation Per Year** = 30 % FTE

**Scope:**  
Standardisation of specific rules for:  
a) process plant documentation  
b) application of simplified representation  
c) application of structuring principles and reference designation.  
Standardisation of graphical symbols to be used in technical product documentation, co-ordinated with IEC, including establishing and maintaining a database, form which any technical committee may prepare collective symbol standards.

ISO/TC 10/SC 10/WG 10 – Reference designation system  
**Convenor:** Mr. Bernd Essig (Germany)  
**Secretary:** Mr. Lutz Wrede (Germany)  
**ISO Member responsible:** DIN, Deutsches Institut für Normung

ISO/TC 10/SC 10/WG 13 – Graphical symbols for diagrams  
**Convenor:** Mr. Jørgen Aagaard (Denmark)  
**Secretary:** Mr. Sven Radhe (Sweden)  
**ISO Member responsible:** Swedish Standards Institute, SIS

ISO/TC 10 Strategic business plan
ISO/TC 10/SC 10/VT – Validation team
Convenor: -
Secretary: -
ISO Member responsible: -

Projects directly under ISO/TC 10/SC 10:
See ISO Technical programme for ISO/TC 10/SC 10 on ISO homepage (www.iso.ch);
ISO/TC 10/SC 10 Technical programme

Standards directly under ISO/TC 10/SC 10:
See Standards and/or guides of TC 10/SC 10 on ISO homepage (www.iso.ch);
Published standards of ISO/TC 10/SC 10

Information on ISO online
The link below is to the TC’s page on ISO’s website:
ISO TC 10 on ISO Online

Click on the tabs and links on this page to find the following information:
• About (Secretariat, Secretary, Chair, Date of creation, Scope, etc.)
• Contact details
• Structure (Subcommittees and working groups)
• Liaisons
• Meetings
• Tools
• Work programme (published standards and standards under development)