

ISO - IEC 82045 - Specifications for Document Management Systems

What is the content of IEC 82045-1 ?

- A document is considered as a closed unit (black box) managed along time from its initiation until deletion
- Defines requirements for a document management system for conventional sequential *and* parallel working procedures along the full document life cycle including archiving

What is the content of IEC 82045-2 ?

- An *open* reference collection of identified metadata (*for computer use*) together with predefined human readable labels (*language dependant; intended for the man-machine interface*) to be used along the document life cycle. The metadata are related to each other and defined by means of a reference information model.
 - A metadata appears to be a data element type according to IEC 61360, but it is an object of its own mostly combining the information associated with a variety of attributes associated with entities in the reference information model
 - A defined metadata is associated with a query in a data base (built in accordance with the reference model)
 - All metadata occurring - need to be tested versus the existence of the relevant properties in the reference information model; i.e. a cross reference is mandatory required
 - A metadata with no counterpart in the reference information model can not be queried in a data base
 - The actual list is a subset only of all possibilities provided by the reference information model

What is the content of IEC 82045-2 ?

- **Defined Conformance Classes**
 - CC1 Contains basic concepts for “static” document management
 - CC2 adds concepts for “dynamic” document management
 - CC3 adds concepts for subscription, distribution and archiving
- An EXPRESS-based reference information model covering the requirements as per IEC 82045-1 (Annex A)
- Recommendations for XML implementation (Annex B)

Why have an information model for IEC 82045 ?

- Purpose of the information structure
 - Translates the process requirements of part 1 into an information structure
 - Provides the required context in which the reference collection of metadata are defined
 - Serves as a basis for the IT-implementation in an Electronic Document Management system (EDMS)
 - Serves as reference model for exchange

Why have an *own* information model for IEC 82045 ?

- The core model of ISO 10303-212/214 covers only partial requirements of IEC 82045-1
- Identical constructs in the core model have been reused
- Open System: The EXPRESS Reference model in IEC 82045-2 allows to refer to any desired object instance of interest within an available external information system
 - Note - External is meant here as an object instance defined outside of the information model of IEC 82045-2
- Allows to describe relationships to objects of interest available in e.g. PDMS (Product Data Management System)
- Easy, step-by-step and economic implementation based on defined conformance classes

XML implementation of IEC 82045 ?

- Two methods recommended
 - XML implementation in accordance with ISO 10303-28 for “STEP users” and demanding applications
 - XML implementation in accordance with a provided DTD for “non STEP users” and less demanding applications
- Exchange of metadata possible without conversion and data loss if they use the same method and conformance class
- If different methods are used mapping is necessary to the extent required by the conformance class

Constructs in Part 2: 1/2

- Multiple identification of documents, versions and revisions depending on domains
- Multiple classifications of documents
- Distribution and receipt confirmation of documents acc. to lists and requirements
- Assignment of validity (effectivity) to documents with respect to
 - time and time periods;
 - countries;
 - organizations and
 - other domains of interest.
- Possibility of referencing to external documents managed outside of the actual document managing system

Constructs in Part 2: 2/2

- Allows to specify conditions to a document
- Organization with persons and their roles within a project
- Variety of document relationship definitions to
 - History, Versions, Revisions, ...
- Assignment of documents to contracts and projects within organization
- Archiving of documents
- Logbook facility

Check of EXPRESS-based information model

- Model has been undergone various internal company tests (not publicly available)
- Covers 3WC requirements concerning Web based documents
- Model reflects industry requirements
- No feedback received from ISO TC46 concerning the use in bibliography applications