

Glossary

Actor	A person who plays a set role in a project, for example an architect or structural engineer or project manager
A/E/C	Architecture, Engineering and Construction
ALF	Annual Loss Factor method, developed by BRANZ to encourage energy efficient building design
AP	Application Protocol, a name used in ISO-STEP for domain schema
ARPA	Advanced Research Projects Agency
Aspect model	Defines the various views of actors, design functions and project windows. Usually a schema definition which is a subset of the IDM, but with extra constraints specified on the model
ATLAS	Architecture, methodology and Tools for computer integrated LArge Scale engineering, an EU funded project
AVL	Adelson, Velskii and Landis tree, a partially balanced tree structure
BRANZ	Building Research Association of New Zealand
CAD	Computer Aided Draughting
CGE	Configurable Graphical Editor
CernoII	A model visualisation tool used and specialised in this thesis
CIME	Computer Integrated Manufacturing and Engineering
CIMsteel	Computer Integrated Manufacturing for constructional steelwork, an EU funded project
COMBI	Computer-integrated Object-oriented product Model for the Building Industry, an EU funded project
COMBINE	Computer Models for the Building Industry in Europe, an EU funded project
CombiNet	Project modelling methodology developed in this thesis
CORBA	Common Object Reference Brokering Architecture
CSCW	Computer Supported Collaborative Working
DCG	Definite Clause Grammar

DF	Design Function
DFD	Data Flow Diagram
DML	Design Modelling Language
DT	Design Tool
DTF	Design Tool Function
EDM-2	Engineering Data Model
EER	Extended Entity Relationship
Entity	The container which holds the attributes and relationships used to model a particular real life artifact
EPE	EXPRESS Programming Environment. A modelling environment for the EXPRESS and EXPRESS-G notations
ER	Entity Relationship
ESPRIT	The EU Information Technology Programme
EU	European Union, a major funding source for large projects
ExEx	Exchange Executive, workflow management tool developed in this thesis
EXPRESS	A schema specification language developed for ISO-STEP
EXPRESS-C	A proposed extension to EXPRESS with some mapping capability
EXPRESS-G	A graphical version of EXPRESS with greatly reduced functionality
EXPRESS-M	A mapping language proposed for ISO-STEP
EXPRESS-V	A mapping/view language proposed for ISO-STEP
FaceEditor	A material specification tool used in this thesis
GIS	Geographic Information System
GUI	Graphical User Interface
HVAC	Heating, Ventilating and Air Conditioning
IBDS	Integrated Building Design System
ID	Identifier, used in the context of objects
IDEF0	A function modelling method
IDEF1X	A data modelling method
IDEF3	Process flow and object state modelling method
IDL	Interface Description Language, associated with the CORBA standard
IDM	Integrated Data Model
IIBDS	Intelligent Integrated Building Design System
Instance	A set of data values which describe a particular building. The data values are structured as specified in the model definition for the particular tool or actor that requires the data
ISDE	Integrated Software Development Environment
ISO/TC	International Standards Organisation/Technical Committee
IT	Information Technology, synonymous with computers
KBS	Knowledge-Based System
KIF	Knowledge Interchange Format

Model	A conceptual model of a particular domain. In many cases it reflects the structures and attributes of individual tools or actors. A model which has values inserted to describe a particular building is called an instance
MSE	Modelling Support Environment
MViews	Multiple Views, a framework for developing ISDEs
MViewsER	MViews specialised to support ER modelling
NIAM	Nijssen Information Analysis Method
Object	A set of data values which describe a particular artefact. The data values are structured as specified in the entity definition
OO	Object Oriented
OOAD	Object Oriented Analysis/Design
PDT	Product Data Technology, denotes the body of available tools, methodologies and standards in the area of integrated CAD systems, dealing with product data interchange, product models, data modelling, integrated software architectures, etc.
PlanEntry	A building plan specification tool used in this thesis
Project	The process of designing and constructing a building. A project starts with the initial ideas on a building and is finished at the time the building is completed
PW	Project Window. This is a window on a project, detailing some small part of the total project. A PW includes the actors responsible for individual tasks, the tools they utilise and the tasks they need to complete
RDBMS	Relational DataBase Management System
SANZ	Standards Association of New Zealand
Schema	A data model (or models) representing a distinct domain, or sub-domain, in the A/E/C area. Examples of a schema include models for the building skeleton, HVAC components, or structural steel components. A full model of a building could be thought of as a schema, though it is unlikely that a homogeneous model can be specified for a whole building over all life-cycles, and all actors. Each of these schema may comprise several, potentially duplicate, sub-schema, for example to describe materials, geometry, etc.
SDAI	Standard Data Access Interface, part of the ISO-STEP standard
Snart	An object-oriented language built on top of Prolog
SPE	Snart Programming Environment. A modelling environment for the Snart language
STAR	A Finnish research programme at VTT for construction process improvement and re-engineering
STEP	Standard for the Exchange of Product model data (ISO 10303)
SUMM	Semantic Unification Meta-Model

Superviews	A RDBMS integration technique
TES	Tool Encapsulation Specification
ToCEE	Towards a Concurrent Engineering Environment, an EU funded project
Transformr	A mapping specification language
VEGA	Virtual Enterprises using Groupware tools and distributed Architecture, an EU funded project
VISION-3D	A 3D modelling and visualisation tool used in this thesis
VML	View Mapping Language. A textual mapping specification language
VML-G	View Mapping Language - Graphical form. A subset of the VML textual language
VPE	VML Programming Environment. A modelling environment for the VML language