



AVEVA

MARINE

AVEVA Marine Dictionary

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1 AVEVA Marine Dictionary

1.1 General

This dictionary explains the terminology used in AVEVA Marine. It covers words and concepts that are specific for AVEVA Marine, mainly in the Hull and Drafting areas, or that are used in a way that may be seen as non-standard or ambiguous.

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1.1.1 A

Index	Explanation
access control	Access control can be applied on functions and/or on project data. The access privileges are associated with Roles.
access level	The Access level specifies the privileges to access an object or a group of objects. The possible Access levels are: None, Read, Read & Write, Read & Write & Change status.
alias name	An alternative name of an object. There are four separate fields for alias name.
assembly status	See status .
attribute	A single property or a group of properties. See property .
activity	Apart from the generic meaning of an effort required to complete a part of an overall objective also used as the identity of a planning system activity. Also see planning unit .
application	A part of the system that is used for one particular type of tasks, one particular discipline. E.g. Drafting is one application, Hull is another one.
area	See zone .
assembly	A grouping of parts or sub-assemblies, which shall be joined in the construction process at a particular stage.
assembly drawing	A drawing of items required for a certain assembly or sub-assembly. It may be a composite drawing with hull and outfitting items.
assembly hierarchy	See work breakdown structure .
assembly parts list	A parts list for one physical assembly. It refers to all sub-assemblies and other components needed to manufacture the assembly.
assembly tree	See work breakdown structure .
association	See topology .

1.1.2 B

Index	Explanation
bending templates	Templates for checking the shape of a shell plate or profile. They may either be physical templates, e.g. made of wooden board, or they may be adjustable, and thus reusable templates of different types.
bent flange	See flange . Folded flanges can be set both in panels and brackets.
bevel	The type of preparation on the edge of a plate or profile.
bill of materials	See assembly parts list . Bill of materials (BOM) is equivalent to a structured assembly parts list.
block	<ul style="list-style-type: none"> What is erected at the berth or in the dock as one lift. Complete steel and outfit group built as one entity for lifting into the hull construction area. Some yards allow blocks to be assembled into jumbo blocks before erection. The block is a geographical zone within a vessel, not necessarily equal to an assembly (a node in the assembly structure). It should primarily be considered a geographically constrained container of hull panels, used to establish the Design Structure
BOM	See bill of materials .
boundary	Often used for the outer 2D contour of a plate, panel, bracket, hole, etc.
bracket	A small structure to connect rigidly two other structures. It normally consists of at most one plate, often with a triangular looking shape, optionally with stiffening of different types and with notches at the corners. Brackets may be type standard brackets or panel brackets
bracket panel	A panel which is used as a bracket. The reason for designing it as a panel is most often because it has a non-standard form.
burning	See cutting .
butt	See seam .

1.1.3 C

Index	Explanation
cable tray	A physical part of a cableway, typically a steel profile on which cables are laid.
cableway	An area reserved for cables or a physical cable tray with material attached.

Index	Explanation
clash	Two physical items that partly occupy the same space in a ship. A clash is most often the result of a design error.
clash detection	The process of investigating if two or more physical items partly occupy the same space in a ship, mostly as a result of a design error.
clash management	The process of managing clashes, i.e. detecting clashes, judging whether clashes are serious or not and remembering which clashes have already been detected and need not be displayed again.
clip	A small plate piece in profile cutouts. Sometimes called lug or collar. (Most often the plural, clips, is used.)
collar	See clip .
collision check	See clash detection .
colour shading	The process of getting next to photo-realistic images of a part of a model.
compartment	Usually an enclosed space in a ship, typically with a functional purpose such as cargo tank or machine room. In Initial Design it is used as the unit for stability calculations and it is often but not necessarily watertight. It may, but need not, be the same as a zone.
compensation	<ul style="list-style-type: none"> • Non-uniform (triangular) excess defined to compensate for shrinkage during welding operations on plates and profiles. • Excess on plate geometry to create the correct cutting path for plate cutting.
connection	<ul style="list-style-type: none"> • A general term regarding the connection of pipes, cables etc.; • The way a profile end should be positioned relative to the element it is attached to. Described with a connection code.
contour	A geometric curve, two-dimensional or three-dimensional.
cost code	Used for estimation and follow-up of costs
custom type	Same as type code .
cutout	Openings for penetrating profiles along plated edges or in webs of profiles. Sometimes called slot or scallop.
cutting	The process of cutting e.g. steel, using a gas flame cutter, plasma cutter or similar device.

1.1.4 D

Index	Explanation
data bank	A collection of data of similar type in a project.
data extraction	The process of extracting specified data from the Data banks. This is done using the Data Extraction tool.
database	A collection of data belonging to a particular project (ship). Each database is identified by a project name. The database is collection of data banks and other files.
default file	A file that controls the performance of a program in some way. Default files constitute important tools to customise the system.
description	Descriptive text for an object.
design model	The direct result of the design activities in one or more applications, stored in a database.
design status	See status .
diamond plate	a small bracket like plate connecting the face plates of profiles.
discipline	See application .
Dotori	The marketing name of an advanced facility for automatic selection of fillet bevel types and calculation of continuously varying bevel angles.
doubling	A small plate at the base of a pillar to strengthen the connection between the pillar and a panel.
drawing revision	There can be several Revisions for a certain Drawing. See also drawing state .
drawing state	The state of a drawing. It shows whether a drawing is closed for updating or not. This is related to Drawing Revisions. An old Drawing Revision is always Closed (frozen). The latest Drawing Revision is by default Open.

1.1.5 E

Index	Explanation
EBOM	See engineering bill of materials .
edge cutout	See notch .
edge hole	See notch .
edge preparation	See bevel .
endcut	Specifies how the profile should be prepared (cut) in its ends.

Index	Explanation
engineering bill of materials	See parts list . The engineering bill of materials (EBOM) is produced during the design of a product as opposed to the manufacturing bill of materials. It is often used as a basis for material ordering.
environment variable	A variable, controlling an action or a behaviour in some programs. The environment variables are set up in the Windows registry and thereby accessible from all executables. Most often, the values of the variables are project-dependant, and separate utility programs can define and modify the values.
excess	Material added to compensate for inaccuracies in manufacturing and assembly. Sometimes called overmaterial, green material or stock.

1.1.6 F

Index	Explanation
face flat	See flange . Folded flanges can be set both in panels and brackets.
flange	<ul style="list-style-type: none"> • A stiffening plate or profile welded against an edge of a panel or bracket or in a hole, normally symmetrically. Sometimes referred to as a "welded flange"; • A bent or folded flange, i.e. part of a plate, normally bent in 90 degrees to stiffen the plate; • Part of a profile (as opposed to web). Sometimes called face plate or face flat; • A pipe flange, a component used to connect two pipes.
folded flange	See flange . Folded flanges can be set both in panels and brackets.
FRP	Fibre reinforced plastic.

1.1.7 G

Index	Explanation
Genauigkeit	The marketing name of an advanced facility for the addition of reference marks to plates and profiles in the shape of small triangles or short lines ("ticks").
generic format	The Hull denomination of a couple of ASCII formats for neutral import/export formats for part information, both plate parts, nested plates, profile parts and nested profiles.
grade	See quality .
green material	See excess .
GRP	Glass fibre reinforced plastic. See FRP.

1.1.8 H

Index	Explanation
hole	Apart from a more generic use it has some special meaning in Hull: A hole can be made with the hole geometry partly outside a plate or covering two or more plate part. In such cases, the splitting process will convert the hole into cutouts in the related plates.

Index	Explanation
hull product model	The part of a product model that is created and developed by the Hull application. This narrow concept excludes from the actual hull product model the associated information created e.g. in assembly and weld planning activities.
hull structure	The arrangement of hull panels constituting the steel (aluminium, FRP) structure of the ship.

1.1.9 I

Index	Explanation
input scheme	Often used for an input file of some kind. The input file is normally read by a program and it contains commands to create information in the database. Often, the term is used about batch input files to plane panel generation in Hull.
interim product	The parts (steel or outfit) listed at one of the levels in the assembly hierarchy. This term is used in group technology and defines an assembly which will undergo a defined work operation to derive the next interim product.
IP file	See default file . (IP stands for information to the program.)

1.1.10 J

Index	Explanation
jig	A berth where shell plates may be assembled to a curved panel. A jig may either consist of jig pillars (normally in a fixed pattern) or of jig templates, i.e. of plates fitting to the shell and arranged in parallel rows.
job	See work operation .
job card	See work card .

1.1.11 K

Index	Explanation
key item list	See major equipment list .

1.1.12 L

Index	Explanation
limit	See boundary .
logical name	A project parameter, implemented as a Windows environment variable. As an example, the logical name SB_OGDB is set to the name of a Hull databank. Executable programs refer to this logical name rather than the actual file name directly.
longitudinal	A stiffening profile, often with large dimensions, welded on the inside of the shell of a ship, along the length of the ship. A longitudinal is divided into longitudinal parts, each of which can be prefabricated as one unit.
lug	See clip .

1.1.13 M

Index	Explanation
major equipment list	The major equipment list is the first material list that is produced for a vessel, containing items requiring special attention (such as the main engine). MEL is continuously split up in a refining process. MEL constitutes a purchasing structure of a vessel, especially in the early stages of planning and design.
manufacturing bill of materials	See bill of materials .
manufacturing status	See status .
marking	The process of making marks on a plate, indicating e.g. the position of stiffening profiles or writing attribute text on the plate. The marking is most often done in the plate cutting machine.
master equipment list	See major equipment list .
material list	See parts list . The engineering bill of materials (EBOM) is produced during the design of a product as opposed to the manufacturing bill of materials. It is often used as a basis for material ordering.
MBOM	See manufacturing bill of materials .
MEL	See major equipment list .
modelling	The process of building up the Product Information Model for a particular project (ship).
model version	See ship model version .
module	<ul style="list-style-type: none"> • A term used for planning purposes which defines a rough geographic area in the ship. It may, but need not, correspond to an assembly for manufacturing. Further, it may, but need not, correspond to a compartment. • Sometimes used for an application or program.
moulded length	For a stiffener: the distance along the trace between the end points of the profile in the design model.

1.1.14 N

Index	Explanation
nesting	The process of placing plate parts on a raw plate in order to minimise the plate waist and optimise the cutting tool path.
norm	Used for calculation of estimated hours for operations
notch	A small, normally standardised opening in plate corners or along edges of plates and profiles, e.g. to give access to welding. Sometimes called rat hole, edge hole or edge cutout.

1.1.15 O

Index	Explanation
object	An item in a database. An object often, but not always, has a correspondence in a real world object, e.g. a steel panel, a ladder.
object subtype	See type code
object type	The type is uniquely identified by: Databank code, Object code 1, Object code 2. Examples: Plane panel object, Drawing object.
operation	Subtask of a work order definition. Can be back reported separately.
operation list	See work order
option	An add-on feature to a standard application.
outfit unit	See module
overmaterial	See excess

1.1.16 P

Index	Explanation
pallet	A grouping of materials that are to be delivered to and fitted at a certain stage-of-fit of an assembly. The pallet division within a stage-of-fit can for instance be based on the discipline, or the source workshop. Usually, one pallet is used locally in one and the same zone or block and at one and the same workstation.
pallet list	A pallet list (PL) is a list of material related to a pallet, which is usually associated with one or several work orders. It lists the components, parts and possibly consumables (such as welding rods), tools and equipment required to complete the work order(s).
panel	<ul style="list-style-type: none"> In shipbuilding in general a panel is a flat structure consisting of several plates with mostly parallel stiffener, typically in the flat of bottom, flat of side or in big platforms or bulkheads. Here, the concept of a panel is more general and a panel may range in size and complexity from a small bracket-like structure or a planar plate to a complete deck. The panel is the central modelling tool when creating the hull structure, especially in the internal structure. Panels may be planar (plane panels) in the internal structure or with arbitrary shape in sculptured surfaces (curved panels).
panel bracket	A bracket designed together with a panel.
panel line	A production line where individual plates and stiffeners are successively welded together to form an assembly unit. A panel line is often highly automated and can produce large assemblies.
part	The model item on the lowest level (a pipe part, profile part etc.)
parts list	In general, parts list refers to a list of items according to some criteria. Parts lists can e.g. be created per discipline (hull parts lists, pipe parts lists, etc.), related to the stage of a product (design part lists with data extracted from a product model under refinement, production parts lists to be used in a workshop), per station in a workshop (plate cutting parts lists, prefabrication pipe lists), related to drawings (diagram lists, instrument lists etc.), related to raw materials (plate parts nested on a particular plate) and in several other ways. The system has a rich repertoire of tools to create parts lists of different kinds and also to allow parts lists to be edited.
PBS	See product breakdown structure .
penetration	The place where a pipeline, ventilation line or cable penetrates a hull item.

Index	Explanation
picking list	Generated from the requisition list to collect material from a store
piece part	The lowest level of the assembly hierarchy created in-house. Usually refers to a steel item. In the Hull split process, piece parts (plate parts and profile parts) are created from the design model. A piece part may be physically different from the corresponding nominal design part, e.g. compensated for shrinkage, or with excess added.
pillar	Free profile, normally welded at the ends only and supporting decks and platforms in open areas. Sometimes known as stanchion.
planning unit	The level of WBS that is scheduled in the common project plan and thus sets the timing for material need, design schedule and resource need (work force). A planning unit (PLU) is a group of work, often one stage for a zone or block, which consists of work to be carried out at the same time or to be ready at a certain point in time and which requires a certain minimum number of man-hours, typically 200. Some yards equate planning unit with the work related to a pallet list. (Such yards usually use planning with less than 200 man-hours and use the term work package.)
plate	See plate part
plate development	The process where a shell plate must be developed, i.e. subject to an inverse bending operation, so that the plate part can be cut in a proper shape from a planar plate.
plate part	A piece of plate that finally has to be manufactured and used in e.g. a panel.
PLU	See planning unit .
pre-assembling	The practice of building sections, large as well as small, of a ship in areas away from the normal building place or dock and then moving them into the normal building ways.
pre-outfitting	The practice of adding outfitting items, e.g. pipes and machinery to hull assemblies in an assembly stage.
process analysis	Includes a WBS with additional information such as Gozonto charts i.e. isometric of a panel exploded to show piece parts and their relative location.
product breakdown structure	The structure of a product, broken down into an assembly hierarchy.
product information model	The total collection of data about a particular project (ship), i.e. about all the physical parts that constitute the final product and all the different associations between them.
product model	See product information model .

Index	Explanation
production group	A group of workers or a manufacturing equipment facility
profile	A piece that is used as a stiffener, flange or pillar. Profiles are always used as though they should be manufactured from bar material but they may in the end be fabricated from e.g. plates.
profile part	A profile piece that finally has to be manufactured and used as e.g. a stiffener.
profile type	Specifies the shape of the profile and the parameters, relevant for control of its size.
project	Usually an entire ship or offshore structure. It can also be a part of a ship, covering only some disciplines. The system further has the possibility to define subprojects.
property	A data element with a name and a value.
purchasing structure	See major equipment list

1.1.17 Q

Index	Explanation
quality	The name for what otherwise is often called the grade, i.e. the specification of certain properties of the used material, e.g. normal steel, high tensile steel, etc. Sometimes called grade.

1.1.18 R

Index	Explanation
rat hole	See notch
raw material	Material to fabricate parts from, specifically plates, profiles, pipes etc.
remarks	Remark text for an object.
reference surface	A mathematical surface, most often a plane, to which a design can refer.
requisition list	A pallet can be divided into requisition lists (RL:s). Material may be delivered in several separate batches.
resource	Any sort of means that is used to complete a product. Examples: manpower, storage area, lifting equipment.
revision	See drawing revision .
RL	See requisition list
routing	<ul style="list-style-type: none"> The process of defining the path in the ship for a cable, a pipe or an HVAC duct. Most often, the path for a cable follows a number of cableways. Analogously, pipe paths and HVAC paths may be defined; The path in a workshop or between workshops that a certain piece of material, assembly, pipe spool, etc. takes in the manufacturing process.

1.1.19 S

Index	Explanation
scallop	See cutout
scheme	See input scheme

seam	<ul style="list-style-type: none"> The borderline between plates, running along the ship. (Corresponding borderlines from portside to starboard are called butts.) Generically, the border line between connecting plates. In Hull, a seam is often seen as a component, dividing a plate into two new plates. To the seam it is possible to associate bevel and welding information.
section	<ul style="list-style-type: none"> An assembly, i.e. a physical part of a ship, usually large and usually mainly a hull part. A drawing representing the internal parts of a vessel as if it had been cut.
sectioning	The process of intersecting a model with a plane and get a picture of the model in that plane.
shell expansion	A process, creating a traditional expanded view of the shell and shell related structures.
shell profile	A stiffener in a curved panel, often referred to as longitudinal or transversal.
ship model version	A version of a complete Ship (Project).
shrinkage	The change of size and distortion due to heating, e.g. in welding operations.
shrinkage compensation	A feature to compensate for shrinkage, e.g. making a plate part slightly larger than the nominal part in a way that after welding the plate has the right dimension.
slicing	The process of intersecting a model with two parallel planes and get a picture of what is between those planes.
slot	See cutout
soft collision	A soft collision occurs when two parts of a model partly occupy the same space in the ship, and at least one of those parts has been marked as soft. Also see soft volume .
soft volume	A part of a model that is marked as soft. It may be e.g. soft material as in pipe insulation, or it may be e.g. allocated space for manual access or service space.
splitting	The process of dividing a panel into its smallest prefabricated parts. Panel splitting produces plate parts and profile parts.
stanchion	See pillar
standard project	For each project a Standard project can be appointed. The Standard project should contain the yard standard for certain types of objects.
status	An object can have four independent Status values: Design Status, Material Control Status, Manufacturing Status and Assembly Status. The Status values are used to control the progress for the specific object.

steel outfit	Parts of steel (plate, profile) that are modelled in a more general way in PDMS as opposed to the Hull application.
stiffener	profile, welded with one edge against the plate or bracket of the panel. Stiffeners may be straight, curved or straight-and-knuckled.
stock	Apart from several generic meanings, sometimes used for excess. See excess .
structured assembly parts list	See bill of materials
sub-assembly	A low level assembly. Yards often mean a "flat" steel part with some welded stiffeners. The production of these can be highly automated and in many shipyards are seen as a preparation (or piece part production) operation rather than as a fabrication operation
subproject	See project
surface	Often used for the shell surface of a ship.
swaging	See swedging
swedging	Swedging means the type of small corrugation in a plate, often replacing welded stiffeners in superstructures, etc. (Originally the term swedging is a misspelling of swaging.)
system	One complete mechanical or electrical group of parts which provides one function in ship operations i.e. oil fuel system

1.1.20 T

Index	Explanation
task	See work operation
topology	Most often used as a term describing the relations, i.e. dependencies, between hull panels. As an example, the boundary of a panel may be related to another panel to which it connects. Instead of explicitly defining the geometry of the panel boundary it is possible to associate to the other panel. Thus modifying one panel may cause the modification also of several other panels.
transversal	A stiffening profile, often with large dimensions, welded on the inside of the shell of a ship, from portside to starboard. A transversal is divided into transversal parts, each of which can be prefabricated as one unit.
System administrator	A person, authorised to administrate the system environment.
Role	A group of users.
User	A person running an application.
Trigger	An event that activates a Vitesse/Python script file. A number of such predefined events exist and can be used to adapt the behaviour in some functions or to connect to some other, often foreign, software.
type code	User-defined type code for objects. There are four separate fields for type code. Type code 1 is also called Object subtype.

1.1.21 U

Index	Explanation
unit	See block
used length	For stiffener: the minimum length of the raw profile bar required to manufacture the stiffener. It considers endcutting, bevel gaps, shrinkage compensation.
user-defined attribute	An attribute, for which the name, type and value are specified by the user.

1.1.22 V W

Index	Explanation
WBS	See work breakdown structure
version	<ul style="list-style-type: none"> • See ship model version. • Often denotes the version (release) of the software.
Vitesse	The marketing name of an advanced scripting tool in the system.
volume	A "light solid" representation of a component or other part of a model.
work breakdown structure	The work, needed to create a product, broken down into a hierarchy. Most often, the term is related to work as well as material, and thus the work breakdown structure (WBS) is the assembly hierarchy for physical assemblies and tasks developed to show how the work is split into different operations. Done correctly, each level is a particular type of task with related material and there may be a presumption that each level is performed in a defined location. (Levels may be skipped where for instance a simple bracket goes directly to a block.)
work card	A job card or form which contains relevant data for a work order.
work operation	One of the operations to perform as indicated in a work order
work order	A collection of work operations (sometimes referred to as an operation list). This is usually issued to a foreman or a workshop team to perform a certain task. Work content is calculated per work order and back reporting of progress is done per work order.
work package	A work package is used to denote a part of a planning unit which is done at one workstation by one trade. Sometimes referred to as activity. Also see planning unit . A work package also denotes the complete set of information or documents needed to perform a certain job, e.g. one work order and a set of drawings
work ticket	See work card
worker category	A group of workers having a specific skill or task, e.g. welders, fitters etc.
WP	See work package . WP is alternatively used as an abbreviation for the product Weld Planning.

1.1.23 Z

Index	Explanation
zone	A predefined continuous geographical area of a vessel which serves a unique function and/or is geographically distinct from surrounding or adjoining parts. It is generally defined for planning purposes. Zones are defined as areas which require the same type of work for completion and/or are to be completed in the same time period. A Zone/Stage combination often becomes one or more planning units. Often Zones are defined as an aid to early purchasing.