



AVEVA

MARINE

www.aveva.com

Design – Build – Operate



AVEVA Marine – Overview

AVEVA Marine supports all stages of a vessel lifecycle from concept, through design, production, maintenance and refit to decommissioning.

AVEVA Marine is a set of integrated design and production applications combined with open and flexible lifecycle management solutions. It provides the fastest, most productive and risk-free way to design, build and operate large, complex ships and offshore vessels.

Key Features

- A set of lifecycle management capabilities (workflow, change, configuration, document management) that enables all the work processes and information networks (people, tasks, plans, drawings, models, documents and materials) to be integrated and managed, to ensure that materials, document deliverables and all resources get to the right place, at the right time, in a controlled and auditable manner.
- Web-based project collaboration and information sharing of project data.
- Integrated Schematic Model and 3D Model.
- The most productive integrated hull and outfitting design applications for a clash-free, production-friendly design.
- Automatic accurate and complete production information for parts manufacture.
- Integrated hull and outfitting assembly production information to support efficient assembly with the minimum of rework in production.
- Global project execution.

AVEVA Marine – Product Portfolio

AVEVA NET

AVEVA's open PLM solution for the marine industry enables the various information networks in a project (people, tasks, plans, drawings, models, documents and materials) to be linked together to provide a single structured view of all the engineering information in context. It then allows this information to be shared, exploited and managed, in a collaborative way, across the globe.

AVEVA Initial Design

Initial Design is an integrated suite of programs for naval architects. It includes functions for hull form definition and fairing, appendage modelling, internal arrangements, and hydrostatic and hydrodynamic analysis.

AVEVA Hull Structural Design

Hull Structural Design is used for the preliminary definition and arrangement of the principal structure of a vessel. It enables production of classification drawings, steel material estimates, weld lengths, and weight and centre of gravity reports.

AVEVA Hull Detailed Design

Hull Detailed Design is used for the detailed design and creation of production information for the structure of a vessel. It handles the complete evolution and flow of information, from the use of customised parametric design standards, structural modelling and automatic parts generation, through to production information for parts manufacture. Output includes drawings, parts lists, and numeric control information for production machines.

AVEVA Marine Diagrams

Marine Diagrams is an intelligent P&ID application which stores the created P&IDs directly in the model database.

AVEVA P&ID 3D Integrator

P&ID 3D Integrator provides data consistency between P&IDs and the Outfitting 3D model data. The application can be used to build the 3D model from P&ID data, or to associate an existing 3D model with a P&ID, so that inconsistencies can be highlighted and corrected during design development.



AVEVA Outfitting

Outfitting is a datacentric, multi-disciplinary design environment for detailed design and the creation of production information for vessels. Outfitting has modules for the design of equipment, piping, HVAC, miscellaneous steel structures and cable trays. Modelling is carried out using a customer-defined catalogue and specification, in a full 3D environment, with the support of tools that ensure a clash-free design. A full range of outfitting drawings and production information can be produced automatically from the model.

AVEVA Multi-Discipline Supports

Multi-Discipline Supports automatically models supports, incorporating customer standards and using the knowledge of the layout of the items to be supported. It includes intelligent modelling of pads, sliding shoes, straps and U-bolt clips, with a full range of profiles for the support structure. Manufacturing drawings can be automatically created with dimensions and annotations.

AVEVA Cable Design

Cable Design is an application for the design of cables including their routing in cableways and through penetrations. Output includes cable schedules with routes, cable cutting lists, and material take-off.

AVEVA Room Design

Room Design is an application for the design of vessel rooms, including functions for walls, ceilings and furniture. Output includes layout drawings, parts lists, and material take-offs.

AVEVA Laser Model Interface

Laser Model Interface adds to Outfitting a tool for working with as-built 3D model data by interfacing with point cloud data from laser scanning systems.

AVEVA Pipe Stress Interface

Pipe Stress Interface provides a two-way interface for the exchange of information between Outfitting and the CAESAR II pipe stress system. Piping designers and stress engineers can exchange design and stress information seamlessly, without duplicating information.

AVEVA Clash Manager

Clash Manager provides comprehensive identification, recording, trend analysis, and management of the resolution of clashes.

AVEVA Hull Drafting

Hull Drafting has functions for the automatic creation of symbolic-type hull drawings from the model database, as well as general 2D drafting functions.

AVEVA Assembly Planning

Assembly Planning supports the creation of the production assembly sequence by creating a vessel build strategy, followed by the detailed assembly definition and preparation of assembly production information.

AVEVA Hull Weld Planning

Hull Weld Planning generates high-precision welding information. It analyses hull assembly structures and uses customisable rules to calculate a full set of technical weld information. Flexible reporting tools allow the extraction of data for robot welding systems or work content calculations.

AVEVA Global

Global allows users at multiple sites to work on line together on the same project. It controls the release of data to each site and ensures that all users have access to the latest approved data.

AVEVA Review

Review is a powerful 3D visualisation tool for large, complex marine models. With features such as walk-through, animation, and high-quality photo-realistic images, Review lets you analyse designs and communicate complex ideas.

AVEVA Marine – Technology Platform

Universal information access

- Navigate and view
- Search and retrieve

Data security

- Permission management
- Access control
- Check in / check out

Revision management

- Version history
- Audit trail

Global project execution

- Partitioning
- Extraction
- Distribution
- Replication
- Synchronisation

Process definition and application

- Data and document state transition rules
- Workflow assignment
- Trigger events
- Messaging
- Distribution

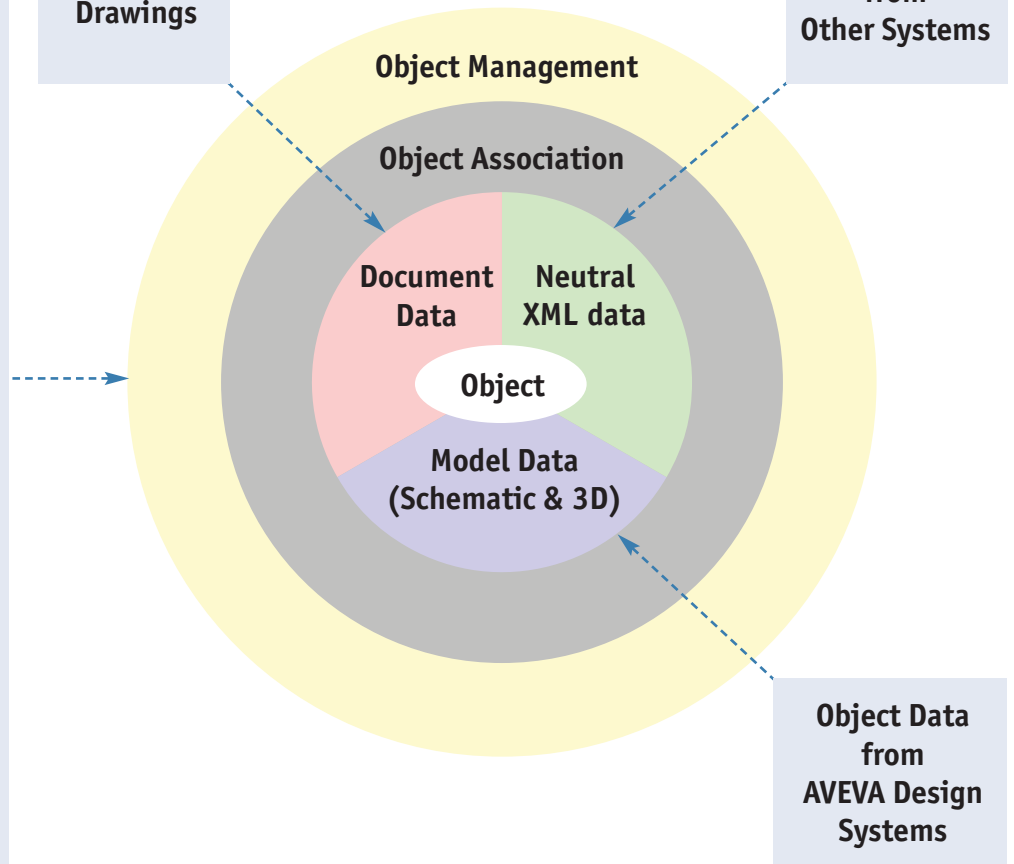
Workflow permissions

- Submission rules
- Approval rules
- Comment and review rules

Workflow audit trail

Documents & Drawings

Object Data from Other Systems



AVEVA Marine – Business Benefits

Marine projects involve sophisticated design analysis, huge amounts of data and large numbers of documents. These evolve during a complex, rapid workflow that requires the participation of many parties. To succeed, you must have good tools for generating, coordinating and managing this complex data flow.

With AVEVA Marine, you will save time and costs throughout the process.

AVEVA Marine allows you to fully control development, approval and release of project data to authorised personnel both inside and outside the shipyard. This control also extends to the management of change during the project.

- In the Early Design phase, you save elapsed time by working in parallel, both internally and externally, due to highly efficient and open features for collaborative working with all project data.

- In the Detailed Design phase, you reduce man-hours through an efficient process to create production information and documents for the parts manufacturing and assembly tasks.

- In the Production phase, you save man-hours and material costs, thanks to the high quality of the AVEVA Marine production information, which leads to greater accuracy, less rework, and full utilisation of machines in the workshops.

AVEVA Marine provides Owners with fast, efficient and controlled access to project data during vessel handover and commissioning. During the vessel's working life, this access to vessel data can also be used to ensure that downtime is minimised by well-planned maintenance and major refits. When the vessel's working life comes to an end, AVEVA Marine provides you with the facility to plan and execute safe and efficient decommissioning.

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MARINE

AVEVA
CONTINUAL PROGRESSION

AVEVA Group plc
High Cross Madingley Road Cambridge CB3 0HB UK
Tel: +44 (0)1223 556655 Fax +44 (0)1223 556666
www.aveva.com