

# YP1 Yacht Modeling 1



## Target

Yacht Designers, Naval Architects and all CAD users having to perform the general modeling of boats including hull form, deck shapes and interior design.

## Process coverage

This package is covering a full Yacht Modeling and Drawings process using standard mechanical design environment.

The Yacht Practices developed by DASSAULT SYSTEMES describe how the progressive maturity of a Yacht project can respect the spiral of the design from preliminary design up to manufacturing drawings, including the automation of the detailed design derivate from the space reservations. The mandatory large assembly management, at the core of CATIAV5 infrastructure, enables to handle the complete Digital Mockups of boat projects that can include several thousands of parts and components.

At any stage of the design a drawing can be extracted from the mockup, a bill of materials can be generated in excel format, or a light 3D mockup for visualization can be extracted with the 3dxml format using the free viewer to be downloaded on DS website.

The **YM1** configuration named '**Styled Mechanical Design 1**' offers the main tools of CATIAV5 to perform solid modeling, free form surface modeling, parametric surface modeling, healing assistant to provide advanced surface repairing tools, assembly design, automatic drawings generation as well as manual drawings and of course the neutral formats translators (iges, step, dxf, dwg).

## Highlight of surfaces capabilities

- **Free Style Shaper 1** is used to create and modify free form curves and shapes with a high level of quality under control of a set of analysis tools. This provides a typical 'Beziers' modeling approach.
- **Generative Shape Design 1** is the key workbench for surface design and topology with the history of all the operations in a comprehensive specifications tree. The surface design templates can be captured and reused to accelerate further designs.
- **Healing Assistant 1** is providing a set of tools to control and repair surfaces coming from external software and showing defect in continuity or topology, to make it compliant with CATIA tolerances.

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### About Dassault Systèmes

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