Mechanical Design

CATIA - 2D Layout for 3D Design

Design 3D models in a 2D conceptual approach.

Product overview

CATIA - 2D Layout for 3D Design 1 (LO1) is a new generation product dedicated to accelerate the 3D conceptual design process. It is the only product on the market where a designer works in a 3D environment with embedded 2D drafting capabilities. During the conceptual phase of a project, LO1 enables the designer to work in a familiar drafting workbench with multi views capabilities. Users can create layout views containing geometry while getting the most of other key capabilities such as dimensions, annotations, dress-up, 2D components and constraints. LO1 incorporates also powerful tools for a fast and associative 3D geometry creation. Once the design is laid out in 2D sheets and views, the user is able to print it immediately for review or to generate a complete drawing sheet from this layout and its content, which enables also to add further views to illustrate it more in detail.

Thus, LO1 gives a unique solution that addresses several processes:

- Design of 3D models from a 2D conceptual geometry.
- Layout of 3D models, with full drafting capabilities.
- Faster 2D overview layouts directly within the 3D environment.
- Reuse of legacy drawings to start new projects in 3D

Well adapted to both 2D and 3D oriented users and to 2D customers who want to smoothly start designing in 3D at the conceptual phase, LO1 provides a intuitive environment to capture design intent.

Totally integrated into the entire CATIA V5 applications portfolio, LO1 facilitates preliminary design phase and/or review phases in Automotive, F&A and all mechanical industries.

Product Highlights

- Design and annotate 3D model using a 2D drafting look and feel ...
- Drive 3D models ...
- Capture design communication intent ...

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Product Key Customers Benefits

- **Reuse of legacy drawings to start new projects in 3D**

**Design and annotate 3D model using a 2D drafting look and feel ...**
- It is the only product on the market where a designer works in a 3D environment with advanced 2D drafting capabilities, during conceptual phase of a project. This product offers a new efficient user interface, helping 2D based designers to reach a 3D process methodology and enabling 3D based designers to manage an early 2D layout for their future 3D design.

- **LO1** provides designers the ability to position multiple view in the 3D User can also add 2D geometry in the They can also easily capture design intent benefiting from all normalized dimensions, annotations and dress up capabilities.
- Moreover, advanced print capabilities ease the review of the conceptual design phase and improve productivity.
- Provide smooth interactions between 2D and 3D design by linking the 3D geometry the 2D geometry and provide also editing a consistent, transparent, display of 3D.

- **Drive 3D models ...** CATIA - 2D Layout for 3D Design 1(LO1) also incorporates powerful tools to export 2D geometry as profiles and planes for a fast and 3D geometry creation. Dimensioning and tolerancing annotation data can be added, with respect to norms, from preliminary phase, and therefore don’t have to be recreated in generated drawings for technical documents.

- **Capture design communication intent**
  ... Thanks to 2D layout of 3D design, designers benefit from important features to achieve better productivity. View Filters enable easy design of 3D models in a 2D process context by simplifying the visualization of the design view. Filters are defined at the 2D Layout and are referenced, on demand, by each view.

CATIA - 2D Layout for 3D Design 1(LO1) provides advanced print management,
ABOUT CATIA V5R18

CATIA is Dassault Systemes’ PLM solution for digital product definition and simulation.

plm.3ds.com/CATIA