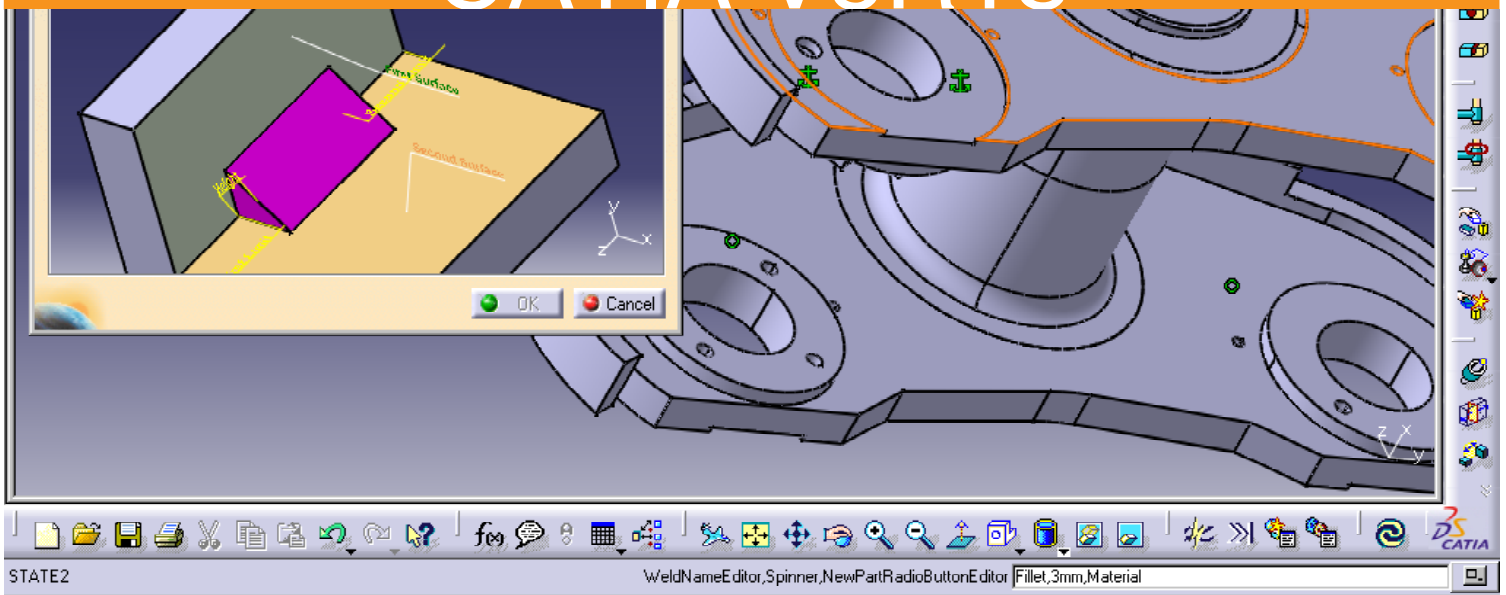


Mechanical Design
CATIA - Weld Design 1 (WD1)

CATIA V5R18





Mechanical Design

CATIA - Weld Design

Design advanced welded products based on process definition and rules.

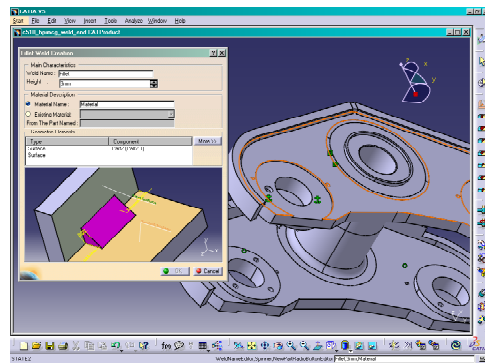
Product overview

CATIA - Weld Design 1 (WD1) is an application addressing welded assemblies. 15 weld types (ISO standard) are provided to the user to create welds, part preparation and relevant annotations.

This product addresses Machinery & tooling industries through advanced welding processes. The creation of the weld in the 3D digital Mock-Up will allow designer to manage digital pre-assembly, mass inertia, space reservation and drafting annotation.

Product Highlights

- ❑ Creates welding operations from a catalogue of 15 welding bead shapes (1 fillet/7groove and 7 double bead) and preparations based on ISO standards.
- ❑ Automatically chamfers parts and edges in preparation for welding
- ❑ Creates associative features between parts and specification for ease of modification.
- ❑ User Define Weld
- ❑ All weld features are integrated into the 3D design: Mass inertia, space reservation therefore improving confidence and quality finished product.
- ❑ The weld visualization and specification is displayed in the drafting environment for full documentation.



Product Key Customers Benefits

A dedicated workbench for CATIA Weld Design 1 (WD1) ... including Assembly Design 1 relevant toolbars and a dedicated welding toolbar. As the CATIA Weld Design 1 (WD1) product is focused on welded assemblies, user has in a single workbench all the tools to deal with the whole assembly welding process.

A set of productive and intuitive tools to create welding operation... User is guided through the specification of the welding process thanks to an intuitive and interactive dialog box. Depending on the weld type, he is invited to select 2 to 4 geometries. Then, welded elements are automatically created, and can be easily modified through the same smart interface.

Automatic preparation of the parts to be welded... Depending on the type of weld user chooses and the specifications he previously defined, CATIA - Weld Design 1 (WD1) will automatically prepare the parts to be welded, creating associative

assembly features in addition to the weld physical element. Length of preparation can be controlled by the user, it allows to weld several parts on the same edge of a given part. The preparation can optionally be achieved on the contact zone on the welded part, instead of the whole edge.

Mock-up.

Associative 3D geometry and 2D annotations preserving design intent...

created with CATIA - Weld Design 1 (WD1) generate 3D geometry and 2D annotations. User can design his weld with full flexibility and advanced productivity, because he gets a full consistent associativity (weld creation and preparation) in case of moving, replacing, deleting or modifying parts.

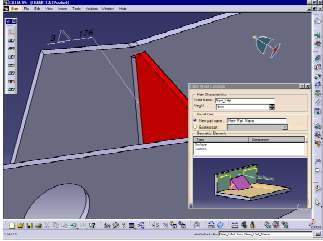
User Define Weld for a complete

This ability gives user the ability to declare any part as a representation of weld. The advantage is that user can create a non-standard weld but the system will handle it as a weld. So that, it will be considered for drafting, mass, inertia, material application and all downstream use of welding elements.

Integration within Drafting... Welds are automatically generated in the views, section views and section cuts and impacted by the Hidden Line Removal visualization mode of the assembly. 2D Welds annotations are also automatically created.

Integration within 3D Design... Mass and inertia of the weld ribbons are added to the mass and the inertia of the whole assembly so that User, specifying the weld material, can perform relevant calculation. Welds can also be integrated in the clash collision of the assembly. The weld attributes can be taken into account in Knowledgeware products as geometric parameters (length, width) or technological parameters (quality). CATIA - Weld Design 1 (WD1) gives user advanced design productivity and a reliable way to incorporate the weld process into the global 3D assembly design and its integration in the Digital

Other images



ABOUT CATIA V5R18

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

plm.3ds.com/CATIA

