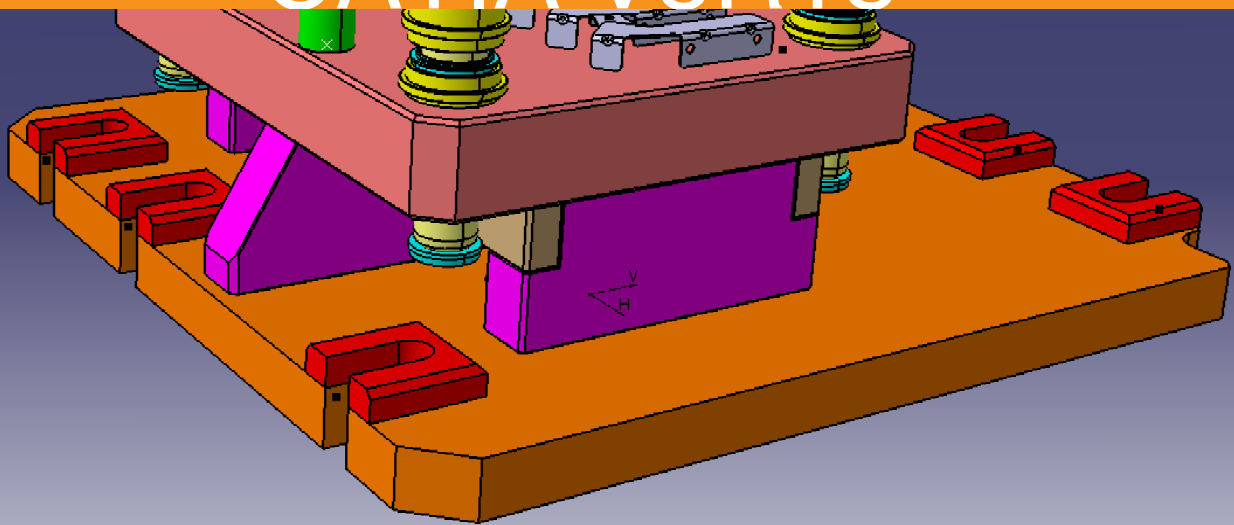


Mechanical Design

CATIA - Tooling Design 1 (TG1)

CATIA V5R18





Mechanical Design

CATIA - Tooling Design

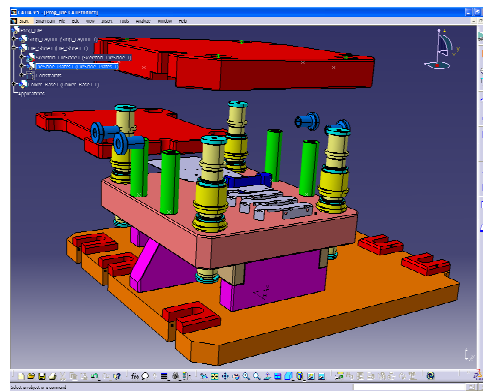
Deliver to Automotive suppliers, E&E, Consumers Goods an ideal generic Tooling Design toolset

Product overview

Dedicated to Generic & user Tooling Component management, CATIA - Tooling Design 1 (TG1) provides to small mold makers a toolset to support the end to end process. This new product covers all productivity features such as positioning and multi instance management and also delivers all needed features for process integration up to drafting and manufacturing (drilling, splitting, propagation of user intent). Moreover, the product includes a rich content through catalogs and samples.

Product Highlights

- ❑ Tooling Design Workbench and Contextual Menus (instance management, splitting capabilities)
- ❑ Huge gain of productivity through Windows native User Interface for short training cycles
- ❑ Definition of General Mechanics Components read from Catalogs and including powerful embedded Drilling capabilities
- ❑ Definition of General Die Components such as Inserts, Sliders, Retainers, Lifter, Ejection Systems, Guiding Components
- ❑ User Defined Components adaptable to any Die context
- ❑ Generation of dedicated and customizable Bills of Materials (BOMs)



Product Key Customers Benefits

Tooling Design Workbench and Contextual Menus (instance management, splitting capabilities)... The Die designer is benefiting from a dedicated workbench to support all his tasks including Component instantiation, Drilling operations. Convenient Contextual menus provide productive simultaneous management of Component and Drillings. Dedicated icons for Die Components are available in the Specification Tree.

Huge gain of productivity through Windows native User Interface for short training cycles ... Icon based, flexible and scalable approach, from beginners & casual users using pull down menus and panels, to advanced users using contextual menus, keyboard shortcuts. Preview and direct mouse-based manipulations and specification during feature creation, modification and drag and drop. Full support of Windows user interface standards such as pull down menus, messaging, on-line help, select-action

approach, multi-windowing, icon docking reorganization. Dynamic users interface including fast mouse-based 3D graphical manipulations and a copilot concept allowing the contextual pre-selection (by means of highlight) of allowed graphical entities. Contextual HTML documentation browser.

Definition of General Mechanics

Components and General Die Components read from Catalogs and including powerful embedded Drilling capabilities ... Tooling Design Workbench provides a rich variety of Components types, namely :

- ❑ Base Components (Insert, Slider, Retainer, Lifter)
- ❑ Ejection Components (EjectorPins, Ejector, FlatEjectors, EjectorSleeves, CorePin, AnglePin, StopPin)
- ❑ Guiding Components (LeaderPin, Bushing)
- ❑ Fixing Components (CapScrews, CounterSunkScrews, LockingScrews)
- ❑ Locating Components (Sleeves, LocatingRing, DowelPin)
- ❑ Miscellaneous Components (EyeBolt, Springs, SupportPillars)

The Die Designer can automatically create components including standard definition from catalogs (Catalog Browser Selection, Filter management , Parameters and Design Tables) and automatic definition of Drillings Information (Associated Holes) according to Tooling Design rules (Drill Hole, TapHole for Threads , Pads, Pockets)

Regarding Fixing Components, Dowel pins, Springs and User Components, already defined components are available with respect to the main standards of the market (DME, DME-AMERICA , EOC, FUTABA , HASCO , MISUMI , RABOURDIN , STRACK , NATIONAL, MEUSBURGER, PCS, PEDROTTI).

Thousands of configurations are available, in these standard catalogs and associated Design Tables.

Regarding other types, specific catalogs including samples are provided.

The components are identified by some main parameters (Nomenclature, L, D, etc), accessible by the catalog interface and specific to the component type. At the instantiation time the system will configure the parameter of the component and will update the its nomenclature to be used in the BOM of the Die assembly

User Defined Components adaptable to any Die context ... User components can be created and stored within user catalogs. The user component can be of an already defined type (e.g. Leader Pin or Ejector Pin) or no particular type, as a free form component. User components are managed with their associated holes as is done for the standard components.

Generation of Bills of Materials

Die designers can generate dedicated and customizable Bills of Materials (BOM's) and automatic Nomenclature from the configuration of the component. Textual format, HTML or XLS (Excel) formats can be generated interactively. BOM can be based on User-defined attributes. Attributes can be defined either externally via a file (.txt or .xls) or manually. Specific formats can also be defined (subset of user-defined attributes) and re-used for BOM generations. Listing Reports including assembly trees and attributes of each component can be generated.

ABOUT CATIA V5R18

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

plm.3ds.com/CATIA

