

3D Viewing Solution for Collaboration & Share

CADbro White Paper

Contents

| | |
|--|----|
| Overview | 3 |
| 1. Simple & Friendly Interface | 4 |
| 2. 3D CAD Viewing | 5 |
| 3. 3D Annotation | 6 |
| 4. Analysis | 7 |
| 5. Healing | 8 |
| 6. Editing | 9 |
| 7. Assembly and Animation | 9 |
| 8. Mold Assistance Functionality | 10 |
| Summary | 11 |

Overview

CADbro is a 3D CAD viewer for designing and manufacturing industry. During the whole life cycle of product, diversified departments, like engineering, sales, marketing, managers, manufacturing and purchasing departments, have the common requirements to view visualized 3D models and check product manufacturing information. Smooth and efficient collaboration is a key factor for the companies.

Beside of powerful data exchange, visual 3D CAD viewing, vivid 3D annotation, advanced analysis capabilities, CADbro offers more valuable features, including healing, Direct Edit, assembly check, animation and mold assistance tools. Many departments can benefit from them to short the design period and speed up time to market.

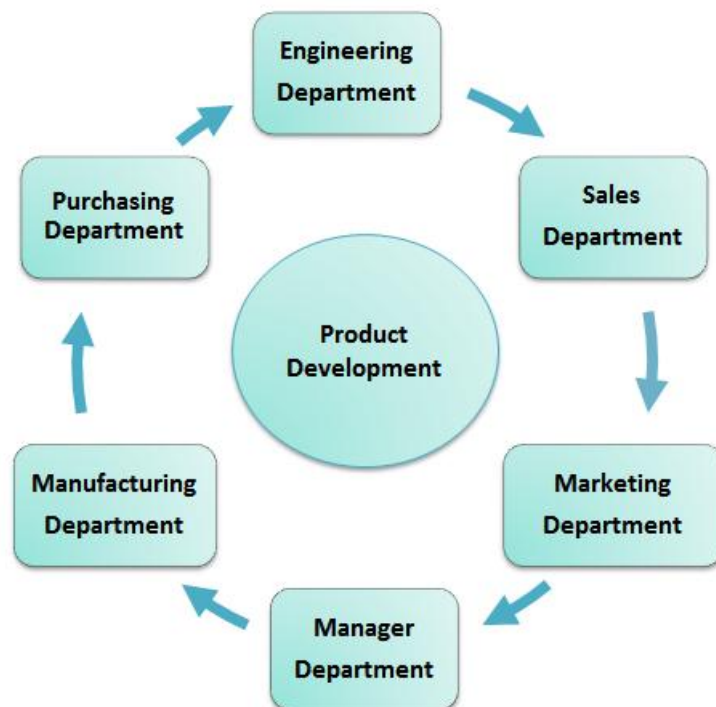


Figure1: Collaboration Cross Departments

1. Simple & Friendly Interface

Clear and reasonable ribbon layout without redundant tools can enhance the efficiency. CADbro provides many different predefined views (e.g. Isometric/Top /Front view), and various display models (such as Shade, Wireframe, Hidden Line), Multi-window is supported, so several different models can be viewed at the same time.

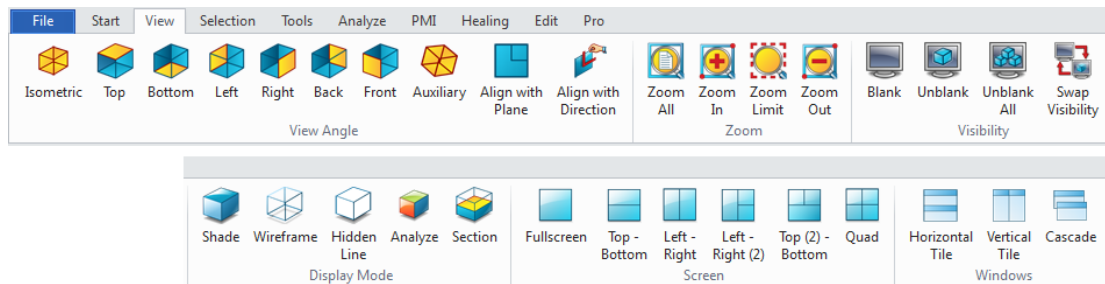


Figure 2: View Ribbon Toolbar

Many different selection methods offer efficient selection, which is also an important part for viewer.

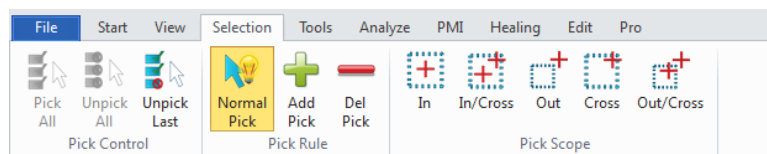


Figure 3: Selection Ribbon Toolbar

For any assembly CAD file, clear assembly structure is displayed in assembly manager. Besides that, layer information is available in CADbro.

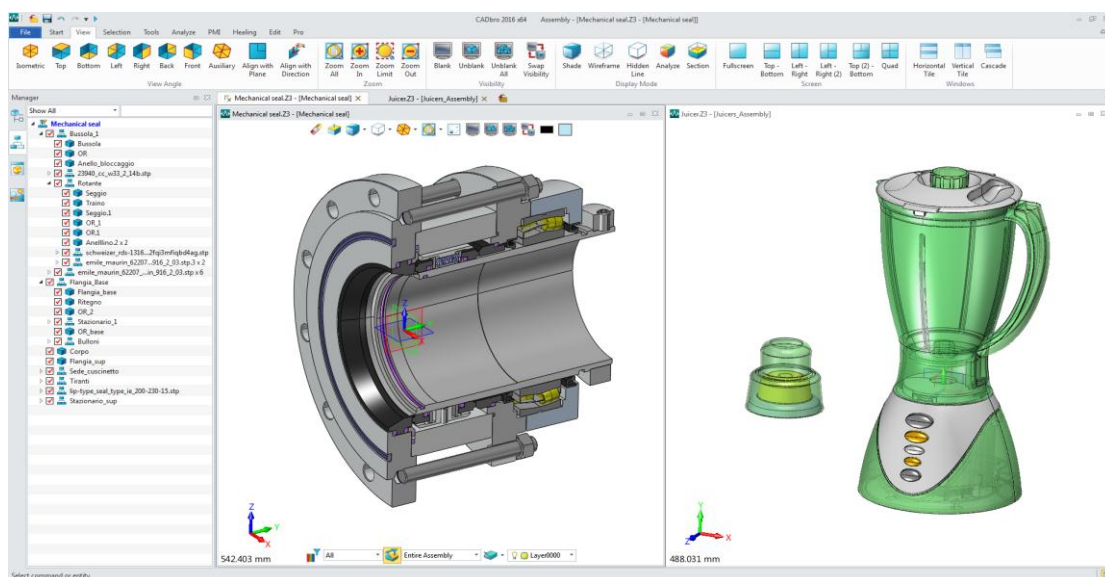


Figure 4: Multi-Window Display

2. 3D CAD Viewing

Any designing or manufacturing company has the CAD systems. A number of CAD systems are on the market. So they have a common requirement that many different departments need to quickly view different format files from other departments, partners, or suppliers or check part structure.

✧ Viewing

More than 20 kinds of file formats can be directly opened with CADbro, including all important standards format such as Parasolid, STEP, DWG/DXF and other 3D CAD files such as Catia, NX, Creo and SolidWorks.

| Open | |
|------------|-----------|
| Catia V4 | Parasolid |
| Catia V5 | STEP |
| Catia V6 | IGES |
| NX | ACIS |
| Creo/ProE | DWG/DXF |
| SolidWorks | STL |
| SolidEdge | VDA |
| Inventor | VRML |
| | CGR |
| | 3DXML |

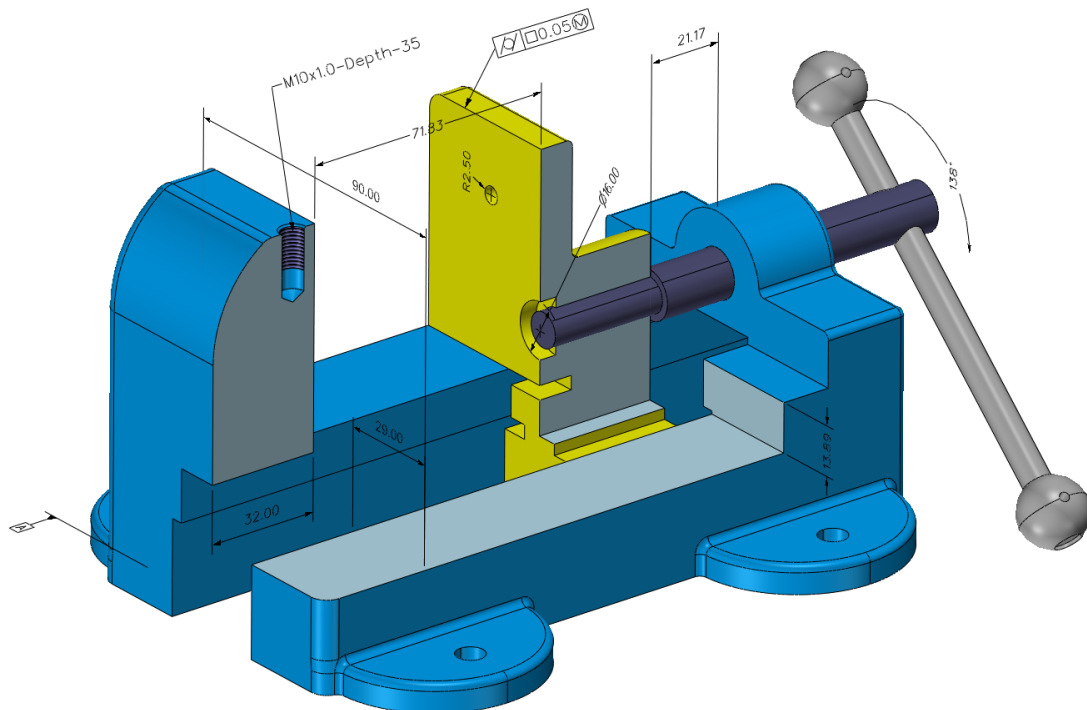
Figure 5: File Format (Open)

✧ Sharing

During the whole workflow, sharing your model with other formats is often necessary. Beside of command file formats, CADbro users can save CAD models to Catia V4 and V5 files. Without expensive additional license, you can make a smooth collaboration with other enterprises. Easily convert CAD models to 3D PDF, then anyone with access to Adobe Acrobat can view, rotate, and zoom 3D models.

3. 3D Annotation

3D annotation is visualization solution, which help clients to check the model or add some remarks, especially for manufacturing work.



6 / 12

4. Analysis

Analysis tools are necessary for most viewers. CADbro provides a range of measure and analysis features. You can quickly make various 2D measurements (distance, angle, arc, length and surface area) and 3D measure (point coordinate, curve connectivity, surface curvature, mass properties and so on).

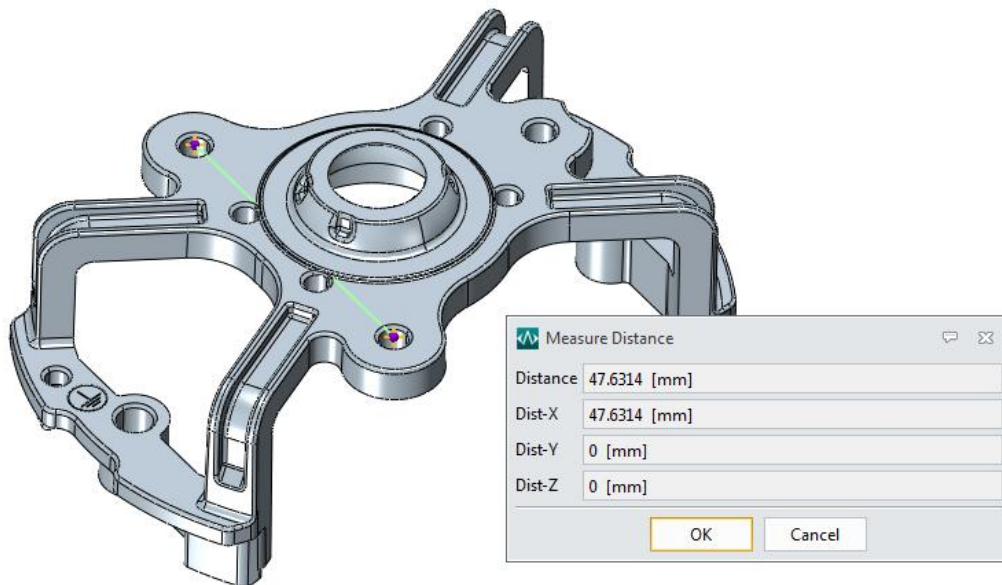


Figure 8: 2D Measurements

Analyze face, check draft and analyze thickness can be used to check the surface quality and product structure. Dynamic section help users to verify the parts and assembly will fit.

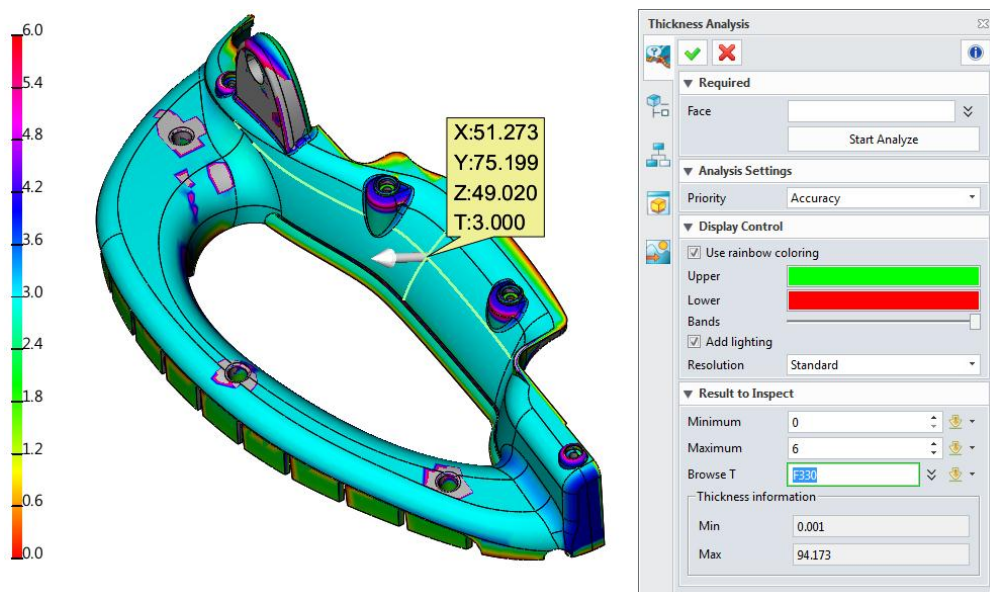


Figure 9: Thickness Analysis

5. Healing

CADbro can detect the model quality and provides auto-healing tools. When the models have some gaps or miss some faces, bad geometry can quickly be fixed. It helps users to check how many open edges in 3D models and automatically analyze and attempt to repair abnormal topology, such as gaps between face edges and coincident vertices. So you can spend less time repairing CAD models.

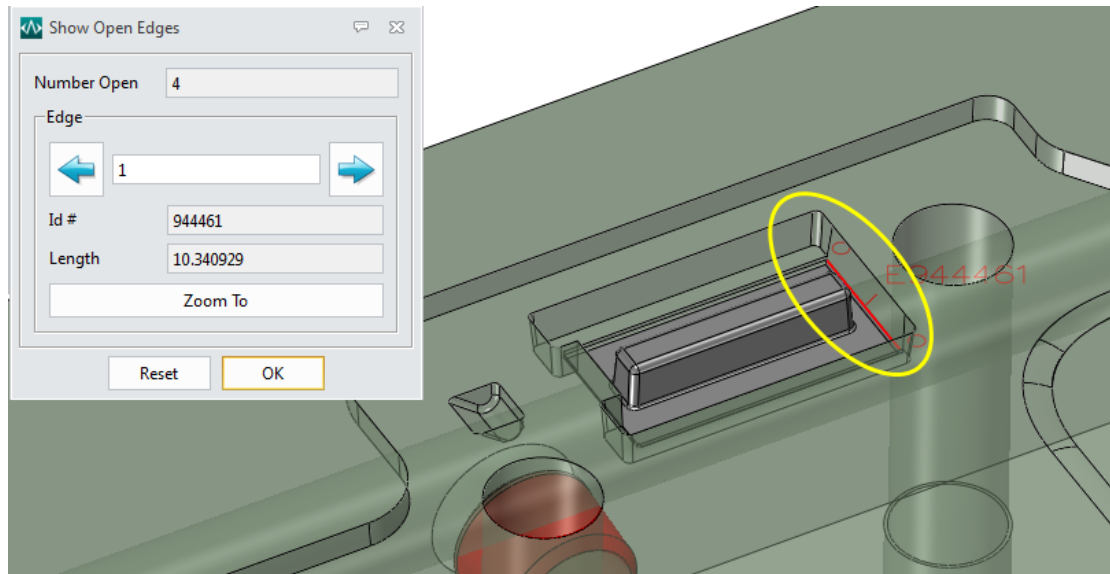


Figure 10: Show Open Edges

Also some manually heal tools are provided. With the click of a button, open gaps between faces can be filled; surface geometry is sewed into the solid; selecting two edges to close the gap between two surfaces.

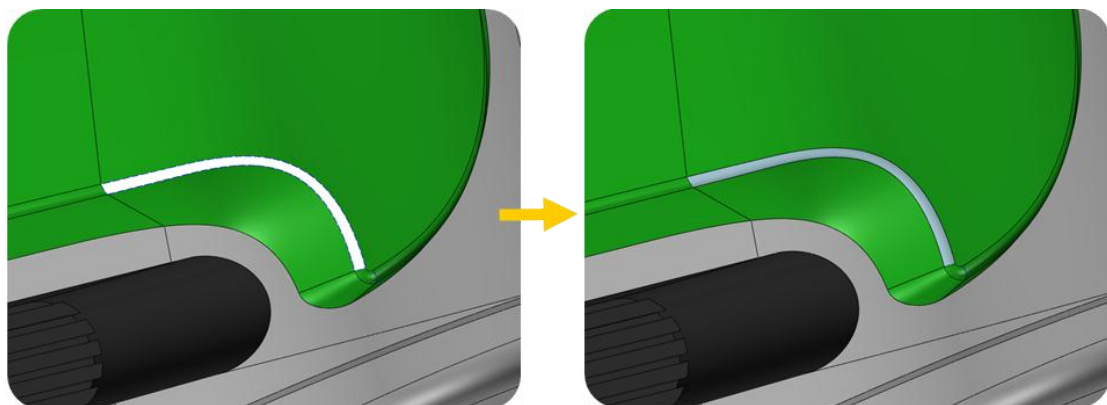


Figure 11: Sew Edge's Gap

6. Editing

During viewing the model, allowing users to make some simply modification is also an important process. Simplify the features, change feature position, move / copy / mirror shape entity, move or drag the component. All these requirements are achieved in CADbro.

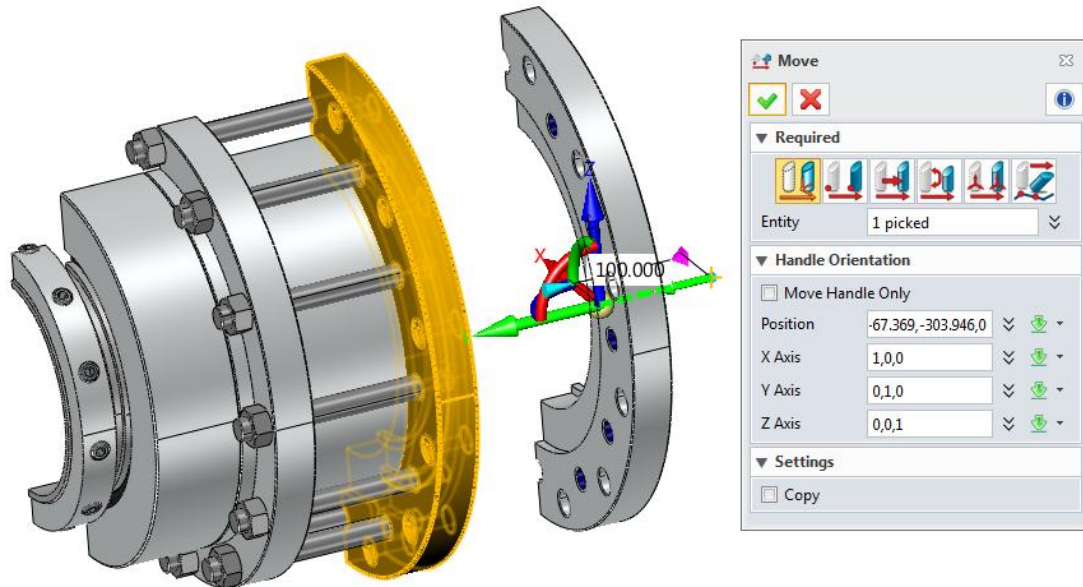


Figure 12: Move the Component

7. Assembly and Animation

Checking the inner construction and verifying assembly movement is an important part of viewing the product assembly. The Interface check function provides detailed results: number, volume and area of Interference regions.

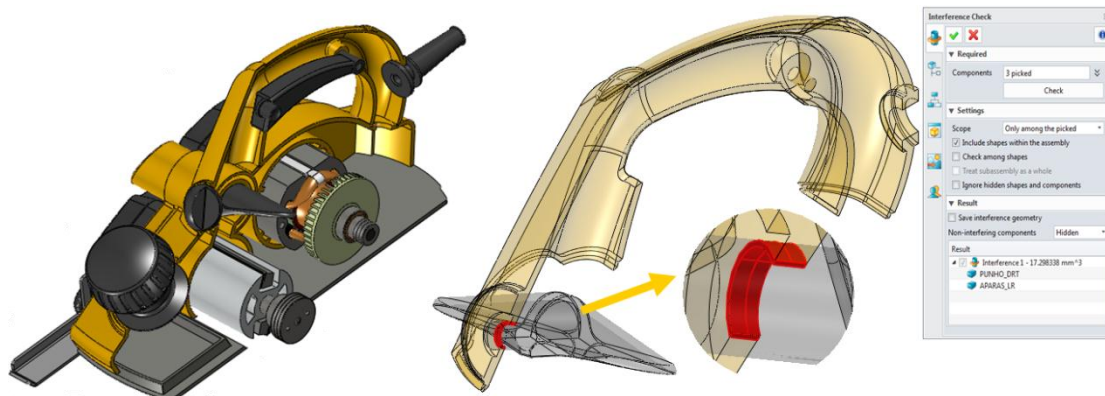


Figure 13: Interference Check

CADbro allows users to create the exploded view and assembly animation. Clients can use vivid animations to demonstrate the product to anyone before entering the market.

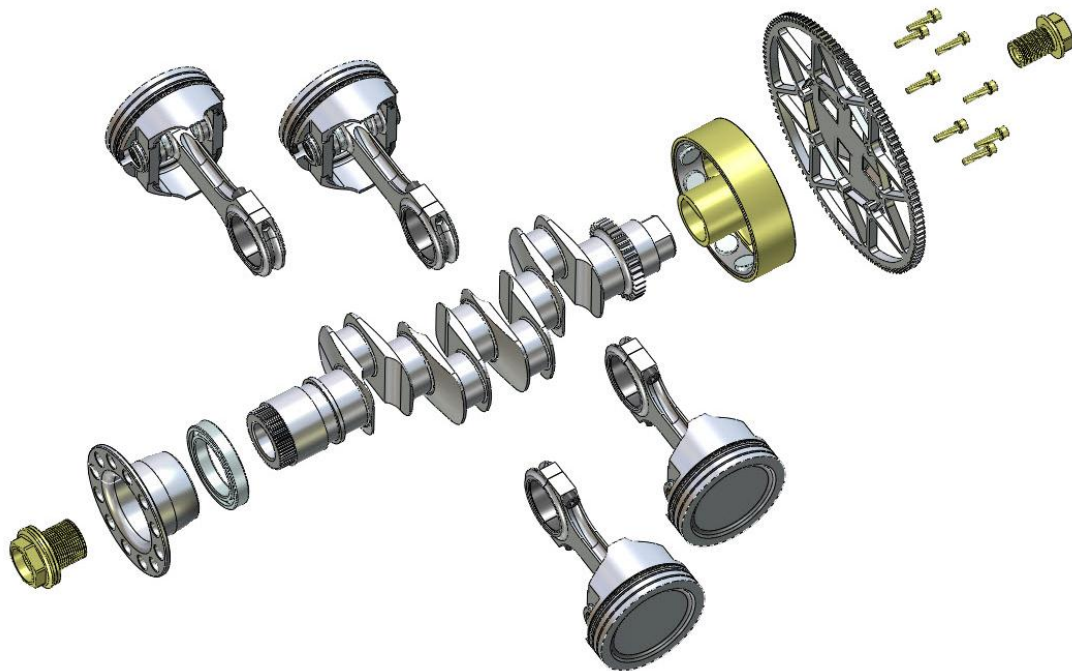


Figure 14: Assembly Exploded View

8. Mold Assistance Functionality

In addition to view, annotate, analyze CAD models, CADbro can do more things. When product model is applied to the mold design, you can finish a lot of preparation work to check design error. Model verification during the early stage of product design & manufacturing will not waste any time and cost needlessly.

All the following functions are available in CADbro, such as Check the draft, align the product, define the shrinkage, make thickness analysis, get product silhouette and create core/cavity region.

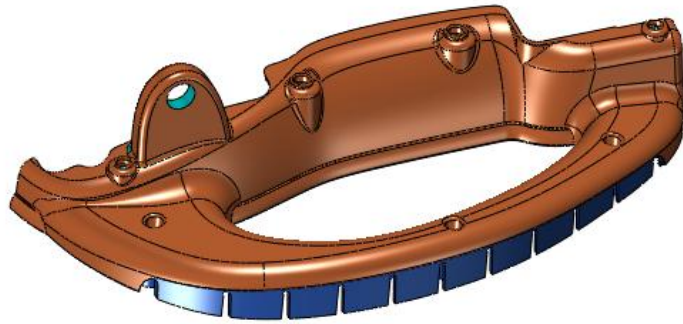
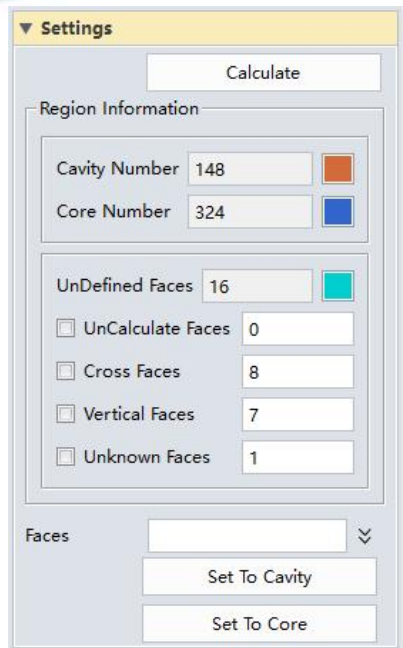


Figure 15: Core and Cavity Region

Summary

CADbro is a full-featured and budget-friendly 3D CAD viewer, for anyone to access, annotate, analyze and heal CAD models, edit the product, verify assembly and do preparation work of mold design. Easy-to use CADbro allow any to make a comfortable and highly efficient internal & external collaboration and share.

Contact Us



Email Address

cadbro@zwsoft.com



Telephone

+86-20-38289780 Ext. 565



Home Page

www.cadbrother.com

About ZWSOFT

ZWSOFT (ZWCAD Software Co., Ltd.) is a world renowned CAD/CAM solutions provider. With a reputation as a committed and reliable provider of CAD/CAM software to the AEC and MCAD industries.

With 20 years' experience in CAD industry, our products and service are proven by over 550,000 clients across 80 countries, including US, Latin America, Europe, Asia Pacific, Middle East, Africa and so on.