HEXAGON

Brochure

WORKXPLORE

The high-speed viewer for depicting and analysing 3D CAD data


Modelle vergleichen
Ursprüngliches Modell
Step
Neues Modell
Step
Metrische Sprache
Werkzeugfähiges Material
Zu entfernendes Material
Rendering Offset
0,005
Glanzlicht 1.0
Indikatoren löschen
Indikatoren beibehalten
Schließen
1,504 mm
0,783 mm
1,936 mm
1,936 mm
1,936 mm

WORKXPLORE

Visualisation, analysis and dimensioning

WORKXPLORE enables its users to import files from a wide variety of CAD applications. This way, users can work on optimising the model before investing time and resources into creating an actual prototype.

A large selection of CAD interfaces is available:

Catia V4, Catia V5, Catia V6, NX, Parasolid, CREO, SolidWorks, Solid Edge, Cadds, IGES, STEP, Unisurf, STL (binary and ASCII), WORKNC, VRML, WORKNC tool paths, ISO tool paths, DXF, DWG, HPGL.

The program saves the 3D CAD files in a highly compact special format which enables the user to calculate surfaces and volumes, measure thickness, dimensions, angles and much more, without having to access the original CAD files.

WORKXPLORE offers a large selection of 2D and 3D dimensioning functions which work with extreme exactitude thanks to the high-precision BREP-3D model used.

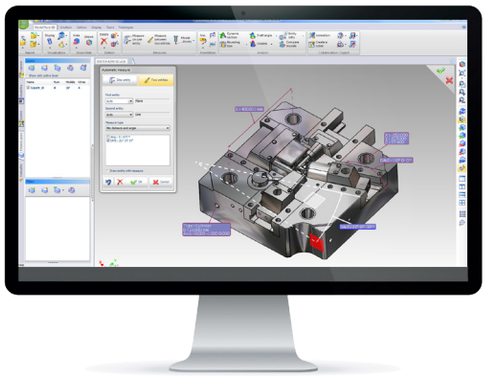
Dimensioning

Even less experienced CAD users will quickly get used to the program's dimensioning functions and rapidly achieve good results through the use of preconfigured standard settings (points, 2D elements, planes, surfaces, etc.).

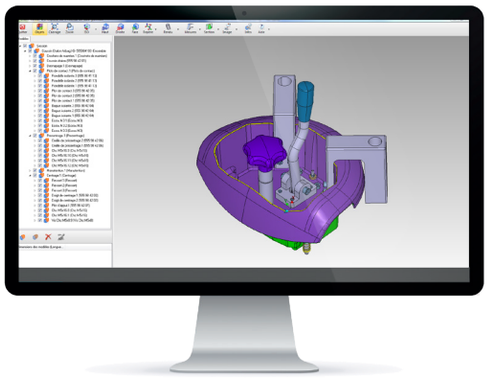
Dimensionings can be generated and placed at characteristic points on the part.
The depiction of these elements is automatically oriented and thus remains visible
at all times.

WORKXPLORE also offers special functions with which experienced CAD users can import point clouds from 3D measurement tools or machines and compare them with the original measurements of the CAD geometry.

What's more, the program makes it possible to generate control point files for transferring to 3D measuring tools or NC machines.



Dimensioning in a component assembly



Importing component assemblies

Analysis

WORKXPLORE contains a large number of analysis tools which can be used for preparing bids, verification, assembly instructions and preparation of 3D models for production.

Moreover, WORKXPLORE offers an array of analysis functions which are normally only available in much more expensive CAD systems. The program is also extremely fast, even with very large models, its functions are very easy to apply and the results are displayed in a 3D colour model. Comments with precise specifications from various calculations can automatically be inserted with a single click of the mouse.

High-performance dynamic sections enable the user to analyse the inside of a part or component assembly in a simple and precise manner. The dynamic reference coordinate system allows the user to change or pivot the section plane with the mouse, or move it along a guide curve. The section can be displayed in the 3D model or as a separate element, extracted and exported via DXF, DWG or other interfaces.

The analysis of curvature radii and planar surfaces is a useful tool for quickly estimating costs and production times. The elements to be analysed are automatically coloured in and can be assigned dimensions by the user. The limitation box for an individual part or group of parts is automatically generated and provides information about the dimensions, volumes and weight of the selected elements. This way, the optimal raw material for production can also be determined. Precise dimensioning information about objects and surfaces is provided, so that volumes and areas can be calculated quickly. Additional information such as object name, space required, number of surfaces, extra allowances, etc. is also available.

Thanks to the clear, high-performance user interface, you can access all important functions directly and work with your software immediately.

Calculation and depiction of mould inclines and undercuts are carried out extremely quickly, even with very large parts. WORKXPLORE colours in mould inclines and undercuts automatically according to the direction of demoulding. Precise values for the angles of mould inclines are displayed dynamically when the mouse is moved over the areas, and can be inserted into the 3D model automatically.

The automatic 3D comparison of parts enables a colour depiction of the differences between two states of design in real time. Changes are clearly highlighted by different colours for added and removed material.

Comments

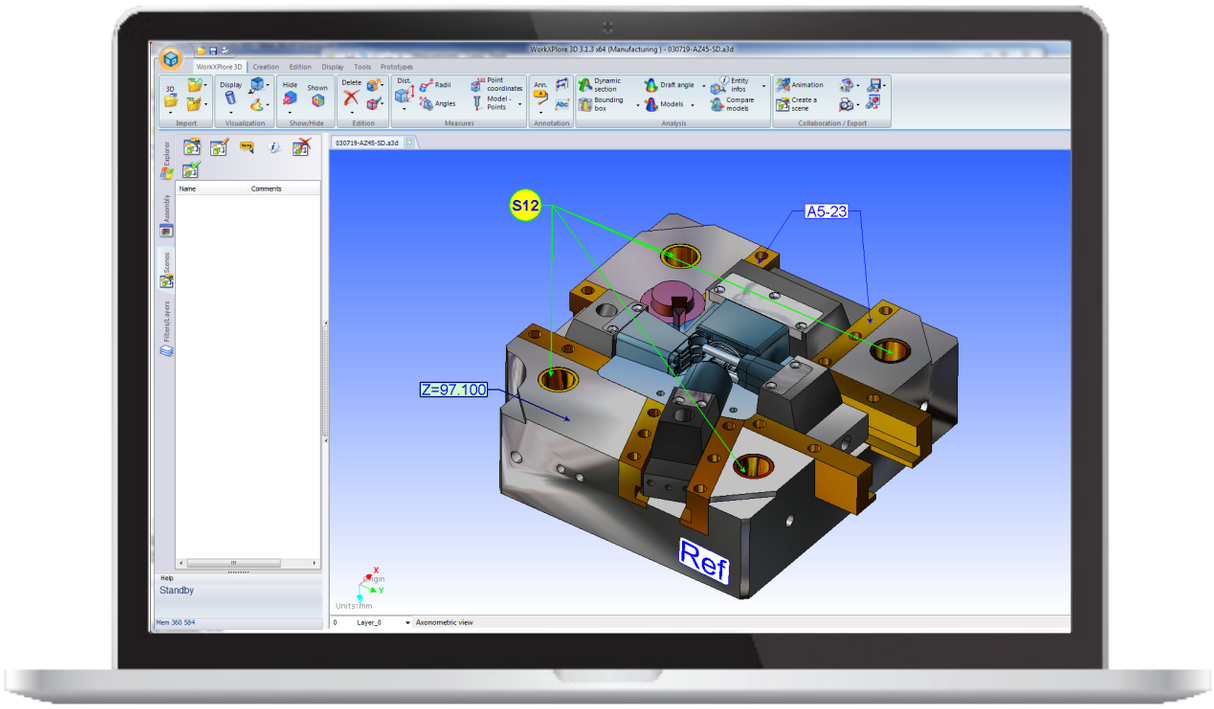
WORKXPLORE offers many functions for comments. This way, users can convey their ideas, remarks, instructions and change requests quickly and easily. 2D drawings are hardly even needed, since users can generate dimensioning for size and geometry and comments directly in the 3D model.

Animation

WORKXPLORE includes a fully functional animation tool for creating exploded views and assembly animations. Animations can be created through shifting and rotating or by following in a guide curve.

Collision detection

The functions for the dynamic collision analysis can be used during the animation in order to check the interaction of movements in real time. Users can also create short videos from the animation menu which can be shown to customers or other project participants.



Comment creation

Documentation

WORKXPLORE makes it easy to create screenshots to illustrate technical documents and assembly instructions. In addition to the usual screenshot functions, WORKXPLORE also has an image collection function, which enables users to easily manage and distribute large amounts of images.

Publication

WORKXPLORE allows its users to make the CAD models available to all project participants throughout the entire design and production chain, no matter whether they are working in product management, marketing or sales, or whether they are production consultants, customers or suppliers.

Creation of predefined scenes

Regardless of their CAD skills, all employees of a company should be able to use communication tools which document their results, so that other employees can make use of this knowledge.

That's why the program receives predefined scenes. The configurations, orientations and views of these scenes are saved in the system along with the associated comments, dimensions and labels.
This way, users can easily switch between views and can always find the configuration which the creator of the scenes prefers.

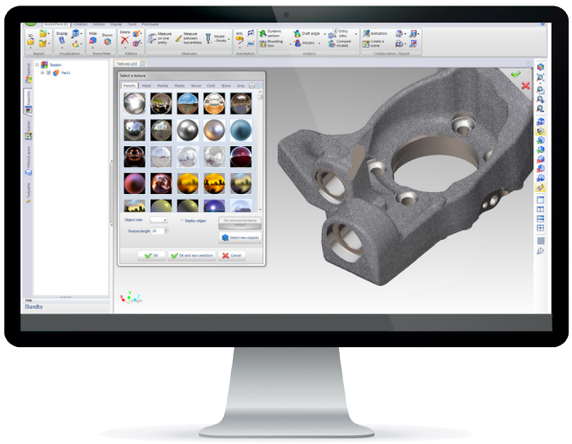
Export

WORKXPLORE allows users to quickly convert standard and native 3D models using the available export interfaces (IGES, STL, VRML, STEP, WORKNC CAM geometry). BREP models can also be saved in IGES format.

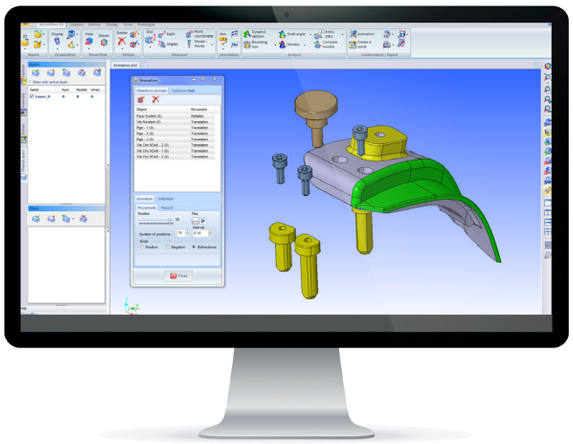
Compatibility

Users need not worry about format compatibility or what software the project partners are using. WORKXPLORE enables users to make 3D parts and component assemblies available to subcontractors, customers and employees. This is done using a separate, compact application which can easily be transferred via internet. The recipient can immediately display the 3D model and work with it without having to access the original CAD data.

Moreover, access protection can be activated to ensure that only authorised persons can access the data.



Rendering / component texture



Component assembly animation

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit hexagonmi.com.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.

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