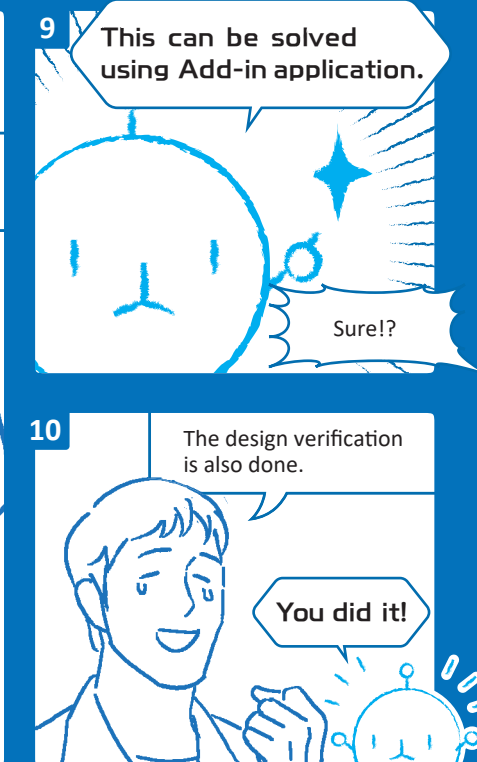
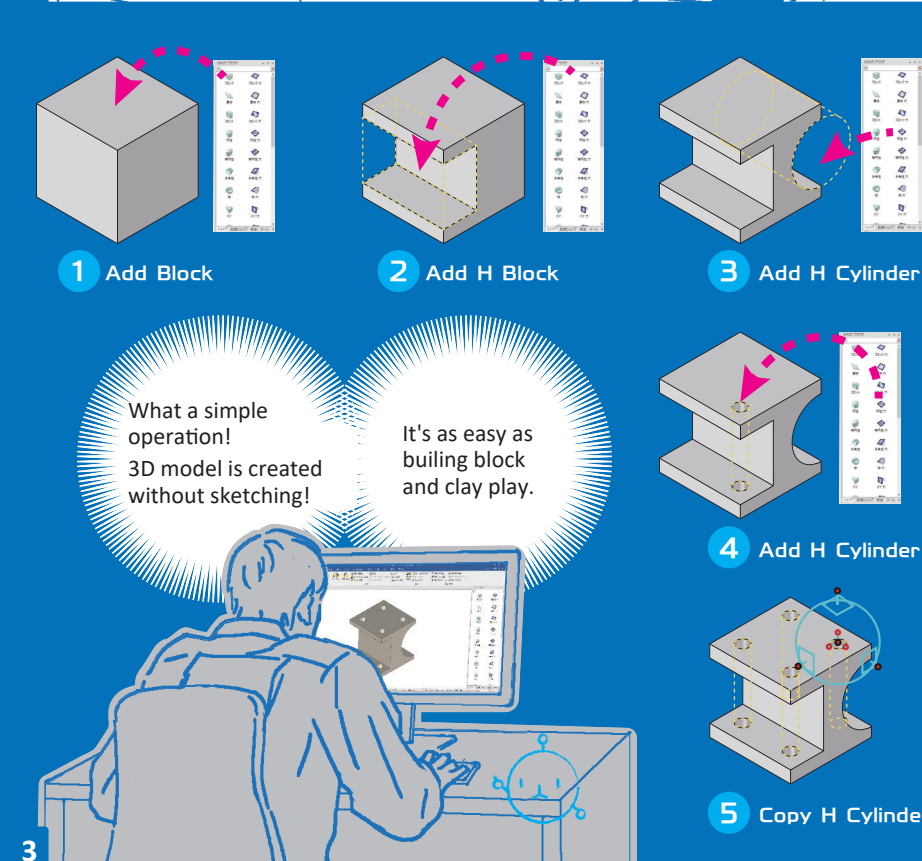
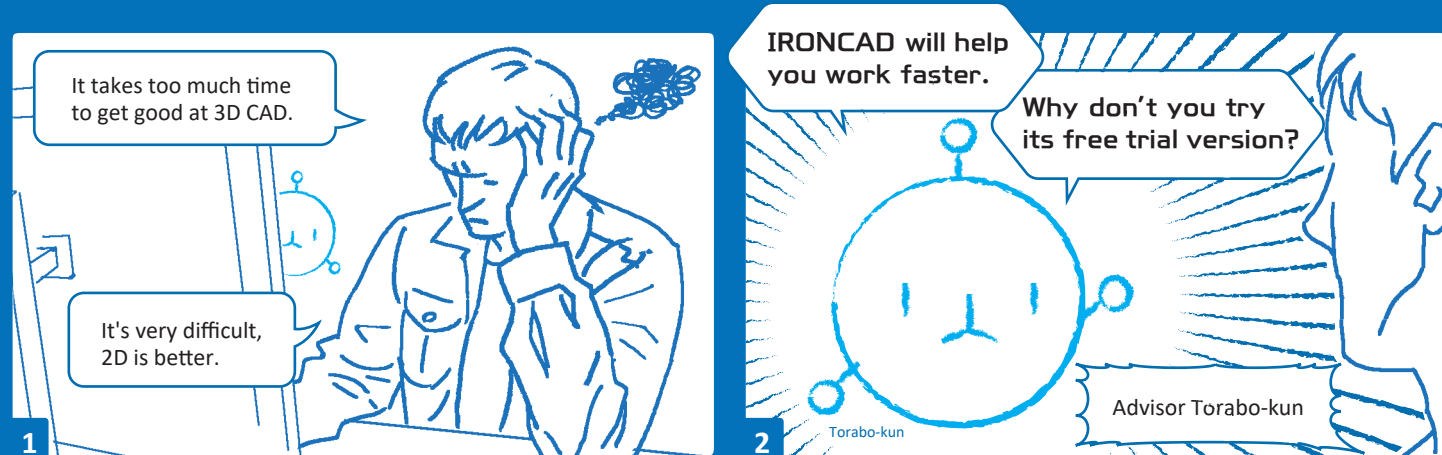


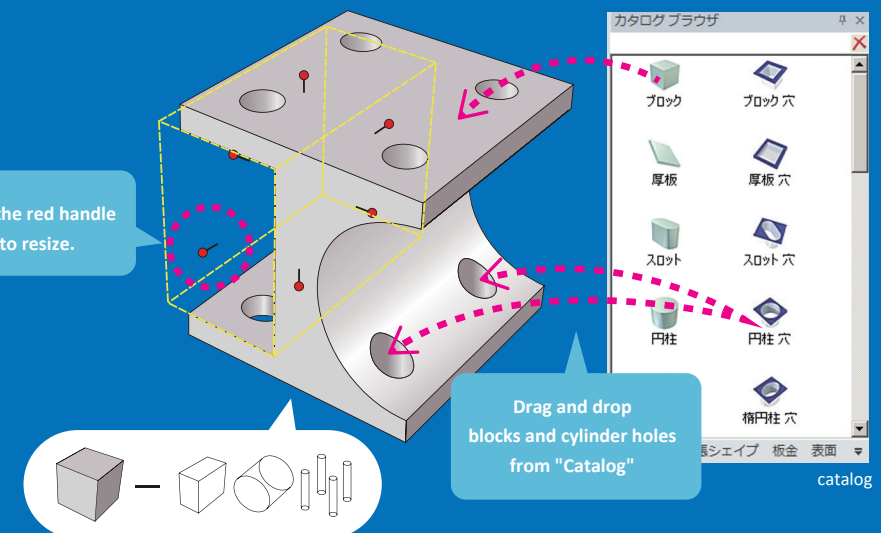


Easy to model

IRONCAD can create parts simply by **dragging and dropping** 3D shapes such as blocks etc. from the **3D catalog** into 3D space.

A wide range of shapes and materials are available in the "catalog".

Automatic machines, machinery and jigs etc. that use many plates and cylinders can be **designed without drawing sketches**.

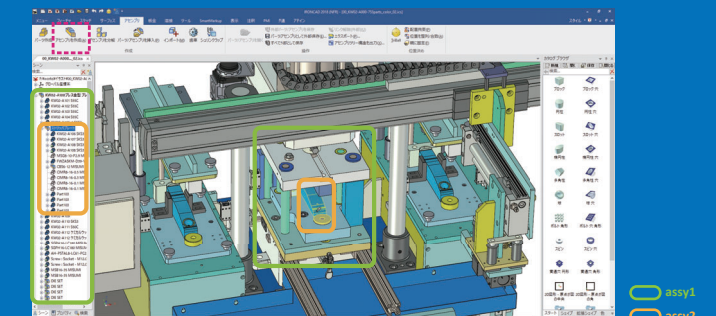


Easy to design with top-down method

Parts and assemblies can be edited in a single file

As IRONCAD has **the same file extensions for parts and assemblies**, file management and conceptional design can be done simultaneously.

Parts / assembly can be saved as external linked files after completing the conceptual design and then detailed design added to the file.



Create and disassemble assemblies with one button

Create and disassemble assemblies with one button

You can **create and disassemble assemblies with just one button**.

The assembly structure can be reorganised independently from the history.



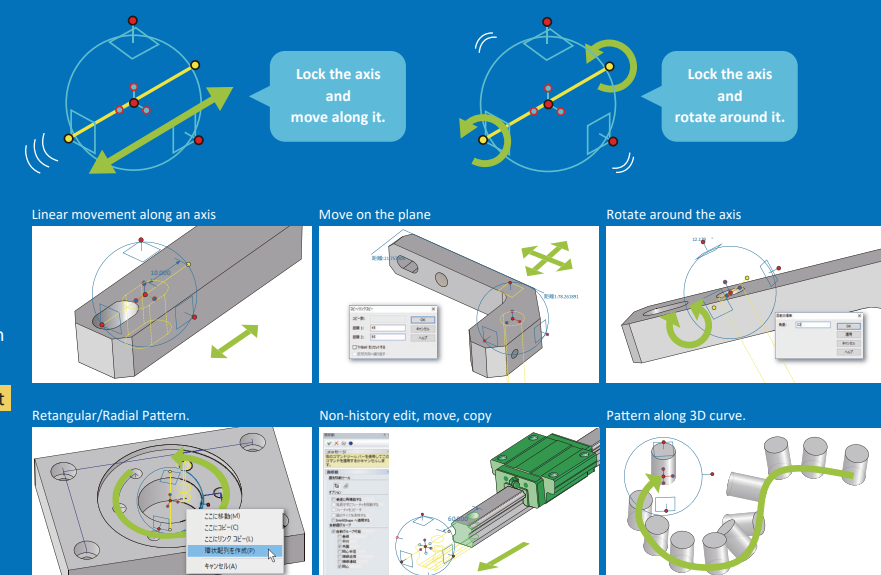
Easy to allocate

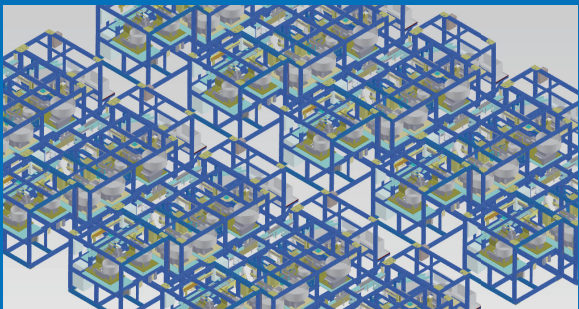
TriBall can move, copy and position any objects in the 3D scene.

Complex positioning operation is possible without the need for constraints.

TriBall can be use to position objects :

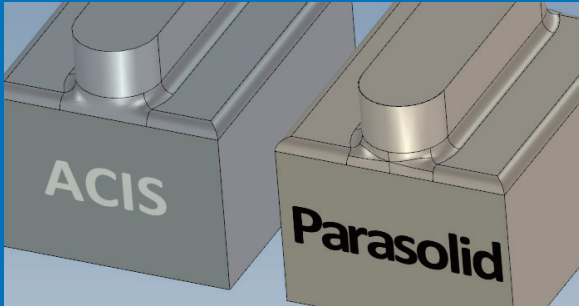
Shape, part, assembly, TriBall body, section figure, 3D curve, surface, joint point, face, light, camera, texture, contour, cut surface, animation pass etc.





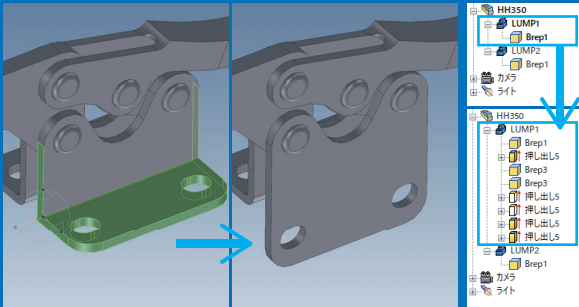
Support Large Assembly Mode

Tens of thousands of assemblies can be manipulated smoothly without suppressing parts. Direct editing of parts is also possible. Move, delete, undo, shape change features is done with a quick response.



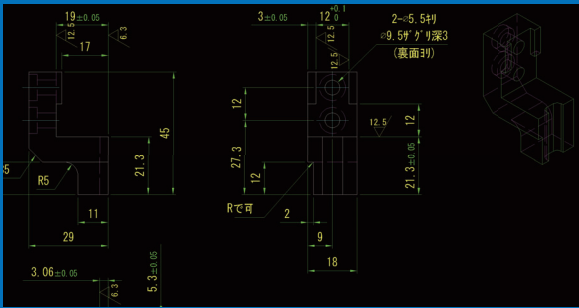
Dual kernel

Has two kernels, ACIS and Parasolid. The kernel can be switched according to the shapes. Useful for creating complicated shapes and reducing errors when importing / exporting the data from other CADs.



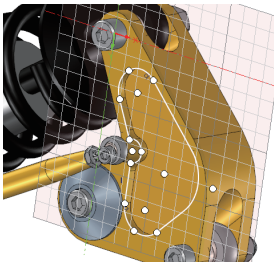
Direct editing or face by Auto-feature is useful for editing the shape of the model imported from other CAD.

It is also possible to convert any shapes to IRONCAD features and edit them from the history generated at the same time.



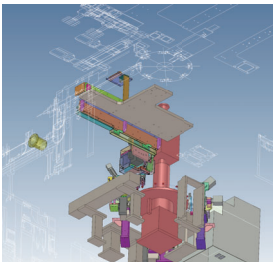
2DCAD with DWG compatibility

It has the ability to can read, edit and save DWG, DXF files. And can also be used as a standalone 2DCAD. There are compatibility of line type, layer, block, dimension style, text style, etc., attribute editing such as drawing border is possible. Shx font is also supported.



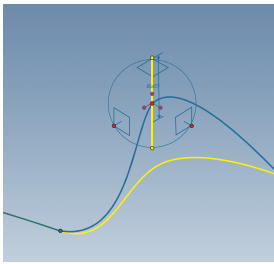
Extrude, Spin, Sweep, Loft

Provides the ability to create the models by creating sketches similar to other CAD products. May also be used to create shapes which are not in the standard catalogs.



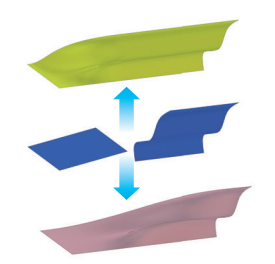
2D shape / sketch

You can select the layers such as Center lines, hidden lines and import DWG・DXF as a cross section. 3D models can be created using this Import Reference 2D.



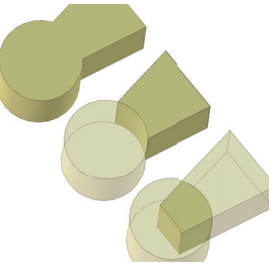
2D curve - 3D curve

Create an accurate curve by specifying profile and tangent points. (Where to use: 3D sweep, guide curve loft, surface shape creation etc) It is also possible to create intersection curves, projection curves, UV curves.



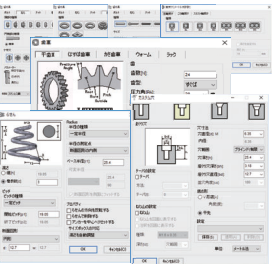
Surface

The ability to create surface shapes from faces or 3D curves. It is also possible to reference existing parts and the surfaces of an imported model. The created surface can be thickened or used to cut a solid model.



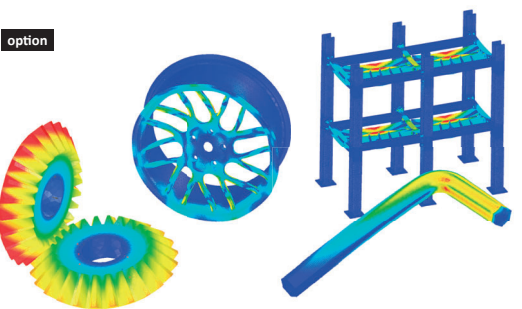
Boolean

Create one part from multiple parts. You can create a Union/Subtraction/Intersection boolean. You can edit individual shapes from the history after the boolean creation.



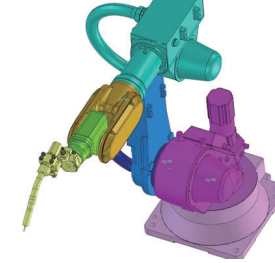
Mechanical parts

Mechanical parts such as bolts, taps, special holes, bearings, springs, gears etc. can be easily created.



MPIC (Finite Element Method Integration Analysis)

CAE analysis software capable of dynamic analysis under complex conditions such as structure, heat transfer, electric field, thermal fluid etc. Rrequired settings such as mesh creation and calculation can all be done within IRONCAD, so you can focus on the design and analysis. (Limitation of number of nodes is set in free version)



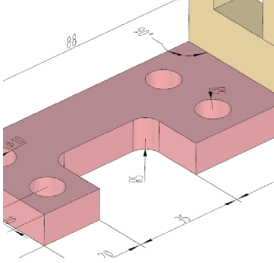
Mechanism mode

Verify the collisions and interference of compoments by assembling and positioning constraints.



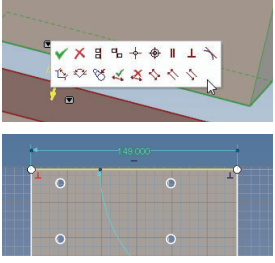
Animation creation

Simulate motion by animation. Various animation passes are available in the catalog. It can also be used in the mechanism mode.



3D PMI (Product manufacturing information) annotation

Dimensions, notes, tolerances, surface finish, welds, datums can be placed in 3D models. These can be passed to the 2D environment (CAXA Draft).



Positioning constraints / Geometric constraints

Align parts' position or assign angle of parts when creating Sketch. The contrainrs can be assigned freely, as required.

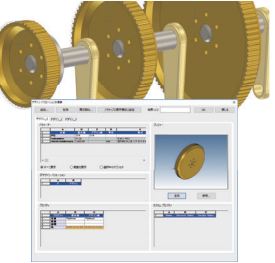


Analysis - Range of automatic calculations

Automatic calculation of mass property such as volume, mass, surface area, center of gravity, moment of inertia, etc. Are all possible.

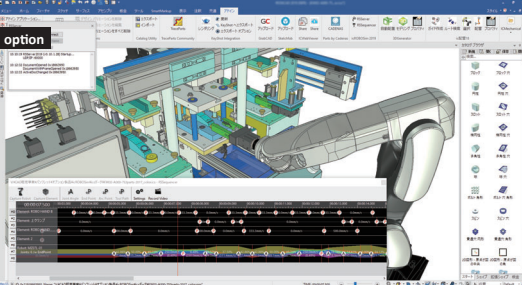
BOM

You can create automated BOM by defining your own custom properties. Excel output is also possible.



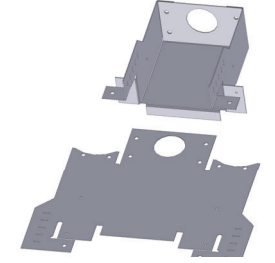
Design variations

You can adjust variations of assembly / feature / part by setting parameters such as dimensions, etc. Numbers entered in the parameter table are automatically applied.



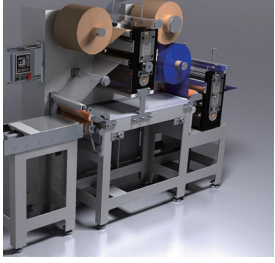
icROBOSim™ (Robot Simulator)

icROBOSim is a robotic simulator that runs on IRONCAD. Since design work and robot verification can be done simultaneously on 3D CAD, there is no losses due to rework or data conversion. icROBOSim has simple UI and allows you to verify based on the takt time. You can verify the operation of not only robots but also peripheral devices and actuators.



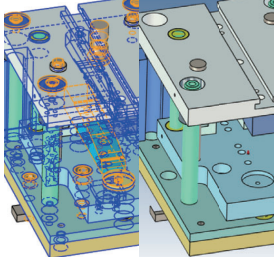
Sheet Metal design / Unfold

As bending and punching shapes are available in the catalog, you can design sheet metal with drag & drop. Parts created by shelling and imported parts without history can be unfolded. Support for 2D flat pattern drawing, 3D conversion and bending.



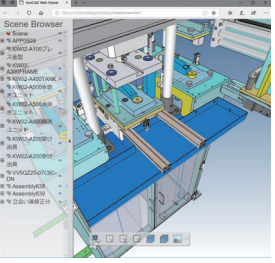
Rendering

3D environments can be shown realistically by setting exposure, shadows, background, etc. It is useful for creating photorealistic presentations and brochures.



Shrinkwrap

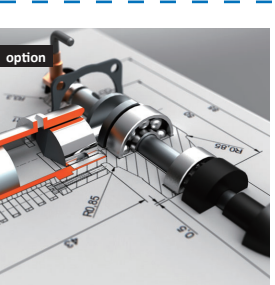
You can save multiple parts as data without history. It is useful for lightening when sharing data with outsiders and creating 2D drawings, simplification of data used in analysis and icROBOSim.



IC Web Viewer

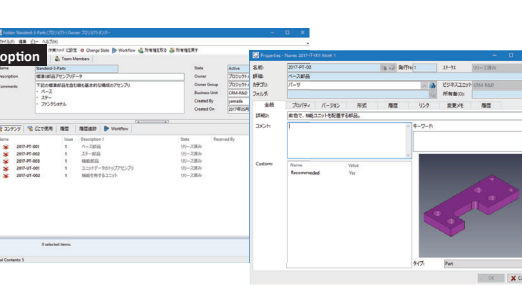
You can upload a lightened model to the cloud and view it with a web browser. It can be shared with teams and business partners.

3D



KeyShot (Rendering)

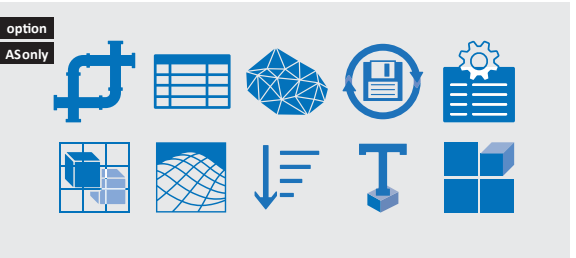
From the 3D model created with IRONCAD, you can easily and quickly create a high-definition photo realistic rendered image. It's quality making it ideal for use in advertising media.



DDM (data management)

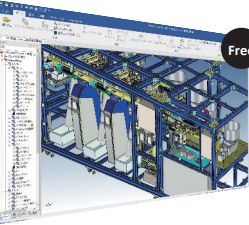
In addition to the 3DCAD model data, DDM is a data management system that can manage all design data such as Word, Excel, PDF file at the same time. Access control, exclusive control, workflow setting up to approval, etc., are required for effective team working within design environments.

Add-ins



icAPI (other add-in)

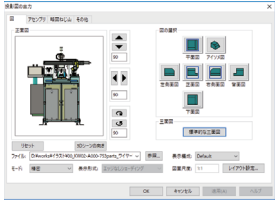
IRONCAD offers useful add-ins: icPiping - Auto-routing pipe design tool, icBOM - Creates Bill of Materials editable with Excel, 3DGenerator - Creates 3D models from 2D Drawings, Material - Register material information, Drawing Support - Alignment and Positioning tool, icAutoSaver etc.. They are available to customers who have subscribed to the Active Support only.



IRONCAD COMPOSE (viewer)

In addition to the view function, it has functions such as simple modeling, rendering, animation, etc. It can be used as internal communication and data sharing tool with customers. 3D-PDF output is also possible.

2D



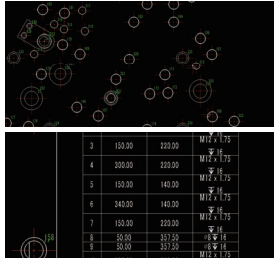
3D -> 2D Link

Projection drawing can be easily created (.exb 2D file extension). 2D contents will update automatically when the 3D model is changed. Property information of 3D model can also be output to BOM for creating assembly and parts drawings.



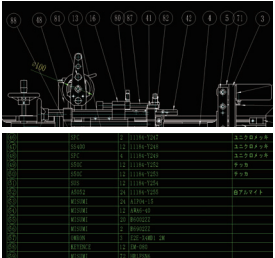
Tolerance, symbols, specialized feature

Dimensions, tolerances, notes, and symbols necessary for creating machinery drawings. For exmaple, library of dimensional tolerance, geometrical tolerance, welding symbol, surface finish symbol, note, center line, shaft drawing, gear drawing, bolt・tap...



Auto dimension/ Auto hole table

Auto dimensions, auto hole table can be created. It is possible to drastically reduce the time and effort to fill in the dimensions.



Bill of materials, Item No.

You can automatically create parts lists and item numbers associated with parts and assemblies. BOM corresponds to both 3D scene and 2D drawing. Output to EXCEL is also possible.