Drawing [Design]

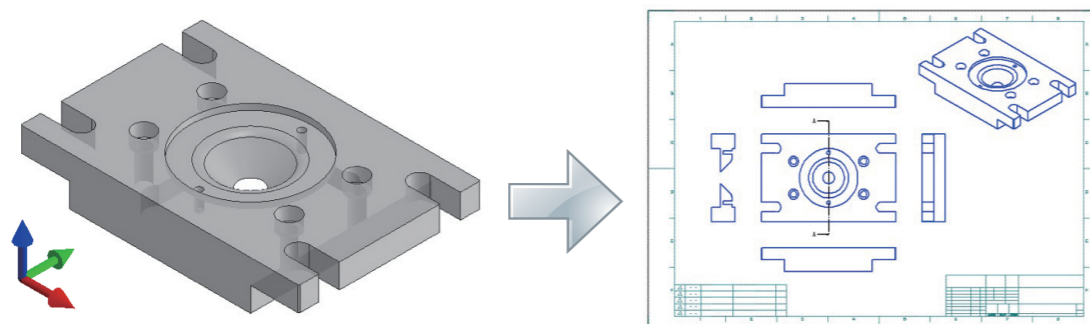## HANDY CAD MARK II
3DGate Application
3D Gate Application

The 3D gate is designed to effectively utilize 3D data running on HandyCADMarkI.
Mainly, 2D conversion of 3D data can be significantly reduced and side views and cross-sections can be created on a 2D CAD screen It's a Noh play, so even those who are not familiar with 3D data can ovulate without getting confused. By incorporating the benefits of 3D data in a wide range of areas from design to manufacturing into 2D CAD/CAM, Reduce man-hours from a new perspective.

I would definitely like to recommend this product to people like this

- Those who have never dealt with 3D data but are considering receiving orders with 3D data from now on
- Those who handle drawings by converting 3D data into 2D
- Those who are dissatisfied with the 2D processing path of the 3D CAM
- Those who use 3D CAM and 2D CAM separately, but feel that it is troublesome to hand over data
- Those who think 3D data is path generation in 3D CAM

KEY FEATURES

- 3DCAD Reliable "Parasolid Engine"
  Proven solid engines ensure reliability and scalability.
- Various formats "Parasolid, ACIS, IGES, STEP" Support for
  It supports major 3D distribution formats, so you don't have to be confused about data conversion.
- Easy operation to switch between 3D and 2D screens
  It's a fully integrated system that doesn't boot into separate software for 3D, so it's not tilted.
- Direct measurement and printing of 3D data
  Even dimensions that cannot be seen in 2D can be measured directly with the mouse and can be used for printing and image cobbying.
- Side view, isome view and cross section view can be created on CAD screen
  On a 2D screen, you can create a projection by simply dragging it in eight directions, giving you the full experience of 2D.
- 2D conversion converts to smooth arcs with processing in mind
  We further tune up the arc completion and deduplication process of the curves that have already been proven, and improve the accuracy of actual processing.
- 3D data is embedded in CAD drawings, making it easy to manage data
  The referenced 3D data is embedded in the drawing in its own format, so there is no need to be aware of the link by re-converting.
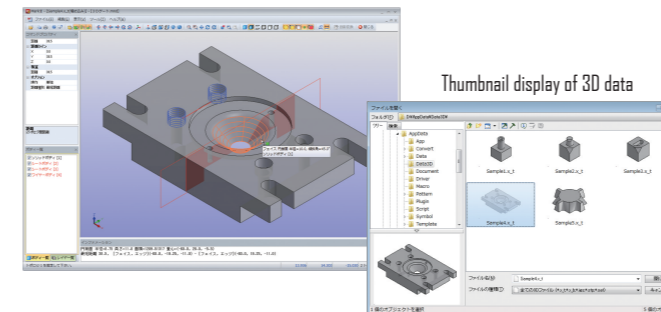
■ 3D View Features

- Automatically optimize 3D data when loading (sewing sheets and simplifying geometry)
- Direct 3D data measurement including 3D element information and distance between 3D elements
- Even 3D data consisting of multiple assembly parts can only be displayed for projection conversion

Thumbnail display of 3D data
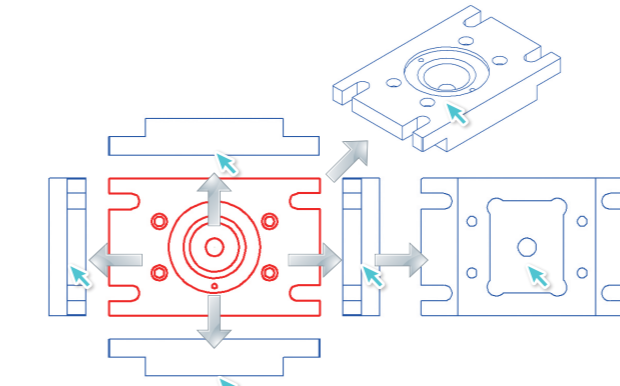
- Rich rendering and transparent display
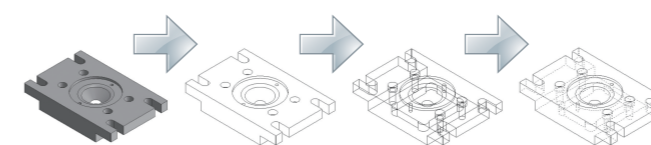
- Even if you want a specific plane to be the projection reference plane, Easy operation with just a mouse pointing the face and edge
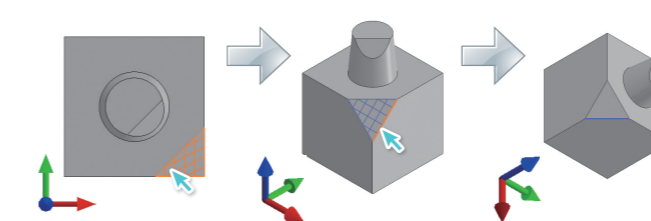
■ Create Side View

You can create a side view on the CAD screen based on the inserted projection. Select the target projection and mouse to the right to create the right side view, left side The figure is to the left, up to 8 directions including the isome diagram depending on the positional relationship of the mouse You can arrange a face map. You can change the rendering state in the command properties when you place it, You do not need to return to the 3D screen. As it is possible to target a side view created in addition to the insertion projection, it is necessary to create a rear view Where can I use it?

■ Create cross-sectional lines/section views

Before creating a cross-section, you can efficiently create a cross-section by defining the cross-section line. Cross-sectional lines conform to JIS's cut line notation and can be used as dimension lines as they are. Multiple points can be specified to cut the shape of the stairs or to specify the passing point. To create a cross-section, you simply need to select a previously defined cross-section line to place the cross-section.

3D preview of cross-section
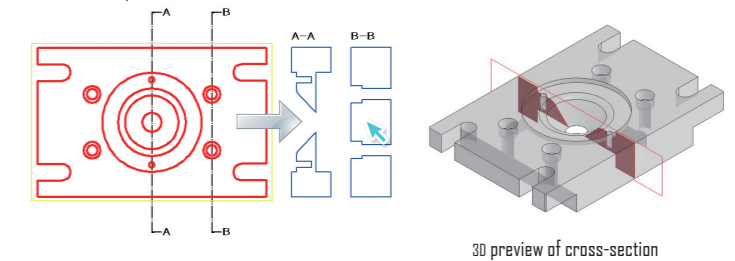
■ Changing the Layout

We have a layout command for positioning after creating a three-sided map. By switching the mode of the command properties, you can move them in a position-constrained state, or you can move them as a whole It is easy to operate even if you move alone.
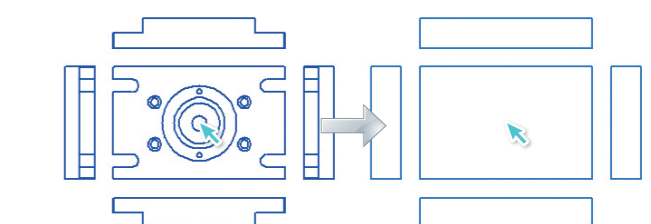
■ Smooth arc completion with processing in mind

When 3D data is simply converted into 2D, duplicate elements are generated, circular/arc segmentation, and microline differentiation There are many problems when defining the CAM, such as the 3D curve. Also, if the graphic correction is applied manually after 2D conversion, it will be very laborious I'll put it away. 3D gate can be automatically optimized for 2D conversion, and any correction can be made This data can be used in the CAM without adding

No Optimization

Projection transformation

Optimized

Basic Specification

● 3D View	Insert 2D projection directly from 3D data	● Properties	Viewing Placement Information, Displaying 3D Models
● side view creation	Create a 4-sided + isome diagram directly from the pre-located projection diagram	● Deleted	Deletion of Deployed Projection/Side View/Section View
● cross-sectional line creation	Cross-sectional lines passing through multiple points are created in accordance with JIS dimension rules	● Environmental configuration	Setting of tolerance, line type, etc., when 2D conversion of 3D data is performed
● cross-sectional drawing	Create a sectional view with the created sectional line or arbitrary line segment as disconnected		
● layout	Relocation while maintaining the positional relationship between placed projections /side views/section views		

3D Function

|			
● supported format	Parasolid(x_t,x_b)/ACIS(sat、sab)/ /IGES(igs.iges)/STEP (stp.step) /STL(STL(stl)	● Snap	Body, Face, Edge, Vertex
● System Configuration	Set 3D folder settings/simplify geometry, sew sheets, and set solidification	● Projection direction	Front view, rear view, plan view, bottom view, right side view, left side view I-4 above isome, I-4 below isome, perpendicular to face/return to initial state
● Display Settings	Set solid, sheet, edge color settings/arc resolution, alpha blend settings Set mouse wheel rotation direction, display direction animation display settings	● What to View	Solid body, seat body, wire body, dot body, cutting result
● Material setting	Setting environmental light, diffuse light, mirror reflection, radiation, brightness	● Measurement	Topology measurements (radius, height, z-axis, x-axis, box width, length, area, volume, center of gravity) Two topology measurements (measuring the shortest or longest distance between two topologies)
● Rendering	Shading/Shading+Edge/Wireframe Wireframe + silhouette / wireframe shaded line / wireframe shaded line	● Other	Printing, copying images to clipboard