Features of 3D/2D CAD Library CADENAS

New data specifications or output data formats that were not available conventionally are added to this CADENAS data to support a wide variety of the customers' requirements.

■ Features of output data

1 Cylinder stroke

When selecting a stroke option item, you can select an intermediate stroke or a nonstandard stroke part number stated in the catalog.

2 Piston rod position setting

The data can be output with the piston rod stroked a desired distance before outputting. When the piston rod position is set using the [Rod Position] field, the data can be output in this status.

3 Solenoid valve manifold

The solenoid valve manifold can be output using the data with the solenoid valve mounted. Selecting manifold specifications and solenoid valves to be mounted will finish the manifold.

4 Merits when displaying the major diameter of the piping female thread

After equipment has been designed completely using the minor diameter display data of the piping female thread, the interference of the overall equipment needs to be checked. At this time, since all cylinders interfere with the speed controller connection portions, the connection portions at 200 locations need to be checked when the equipment uses 100 cylinders. However, as the thread display is turned OFF to change the piping female thread to the major diameter display data when outputting the CADENAS data, this eliminates the interferences of the piping connection portions and greatly reduces the interference check work to be conducted by the user.

❶ Shape of piping thread
Turning OFF the cylinder thread display will eliminate the interferences.

❷ Interference check on 3D CAD
When using the data with the cylinder thread display turned ON, the connection portions may interfere. So, all locations need to be checked. When turning OFF the thread display, no interference occurs. Therefore, waste work can be reduced.

5 Origin of fitting

The origin (0, 0, 0) is located at the position of the gauge plane.

6 Outputting the data with constraint conditions

The following describes how to output the data to Solidworks2010 using the Solidworks 3D output of the CD-ROM version.

❶ Outputting the data to Solidworks2010
Output the Solidworks 3D data to a personal computer, into which Solidworks2010 has been installed.
Click [Export], [Write], and [Solidworks 3D]. Solidworks2010 starts running automatically and the data is displayed on Solidworks2010.

❷ Data displayed on Solidworks2010
The data with constraint conditions is output. Use of this data makes it possible to check the features or constraint conditions for each component.

■ Features of output format

1 Direct output (CD-ROM version)

The direct output can also be selected to support the user's needs that desire the data with the constraint conditions. When outputting the data with the constraint conditions, the drawing conditions, such as center line alignment of each part, are output at the same time. So, use of this data makes it possible to edit the feature (drawing record), etc.

❶ Outputting the data to Solidworks2010
Output the Solidworks 3D data to a personal computer, into which Solidworks2010 has been installed.
Click [Export], [Write], and [Solidworks 3D]. Solidworks2010 starts running automatically and the data is displayed on Solidworks2010.

❷ Data displayed on Solidworks2010
The data with constraint conditions is output. Use of this data makes it possible to check the features or constraint conditions for each component.

2 Macro file output

The data can be directly loaded into the user's CAD software without creating any intermediate file. The macro data does not come with the constraint conditions, but it can use the feature (drawing record), etc.

Example of macro file operation (Operation example of Solidworks2010)

❶ Specify Solidworks macro data on the PART solutions screen to output it into a desired folder.
The extension of the macro file to be saved is “***.swb” .

❷ Open Solidworks, click [Tools] → [Macro] → [Run] , and select a macro file you want to run.
The macro file that has run is then displayed on the Solidworks screen.

■ Drawing example

Drawing example by outputting the CDQ2B12-15DZ-M9N and KJH04-01S from the CADENAS and combining them.