

CAD NOW! Instructional Guide

The following steps serve as a basic guide to the installation of the *CAD NOW!** software as well as running the software in order to view and import the desired part into a CAD drawing.



CAD NOW! is a powerful software tool that allows the user to select various CAD drawings of valves, actuators, and accessories that SVF offers. Once a part has been created by selecting from the various options given in the “configurator”, a drawing of the selected part will appear and the part can be viewed and inspected. Furthermore, a selected part can then be imported into a CAD program and edited, or it can be used to create assemblies with other accessories. The biggest advantage of using the *CAD NOW!* software is its capability to allow you to import a desired CAD drawing into a CAD program when developing a piping scheme. Instructions on importing drawings into CAD programs will be discussed later.

INSTALLATION

To install the *CAD NOW!* software, make sure that the *CAD NOW!* CD is inserted in to the designated CD Drive. The software should enter the set-up prompt automatically. If not, then choose Run from the Start Menu.

**CAD NOW!* is the SVF trade name for the PlantSpec CAD database/configurator produced exclusively for SVF by Thomas Register (online at CADRegister) *CAD NOW!* is also accessible at www.SVF.net



The following shows a list of System Requirements necessary to install *CAD NOW!*

- Windows® 95, Windows® 98, Windows® 2000 or Windows NT® 4.0 or higher
- Processor Requirements 486DX or greater
- 64 MB RAM minimum recommended
- 100MB free hard disk space
- Dual-speed CD-ROM drive minimum
- Mouse
- AutoCAD or other CAD software required for .DWG insertion

Follow the designated onscreen instruction prompts to install the software into the hard drive i.e., the user agreement, choose standard setup, select Local CD Rom drive, and select the destination folder for the software. During the installation process, you will be informed that you need Acrobat Reader if you do not already have a PDF reader installed on your PC. If you do not already have it then the installation manager will prompt you to install Acrobat Reader 4.0.

INSTALLATION (continued)

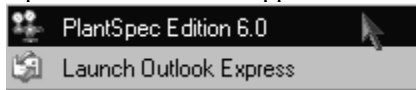
Once the setup is complete, click on launch to run *CAD NOW!* immediately, or to start *CAD NOW!* choose:

Programs>Thomas Register's PlantSpec>PlantSpec Edition 6.5
from the start menu

(*CAD NOW!* data can be stored locally on a workstation or network drive, or kept on the CD. When using data from the CD, make sure that the CD is inserted in the CD-ROM drive when running this application).

USING CAD NOW!

Open the *CAD NOW!* application either by clicking the PlantSpec icon, shown here,



, or by launching it from its downloaded directory, explained previously. Double Click in the *SVF Flow Controls, Inc.* option.

The *CAD NOW!* interface is similar to the Microsoft® Windows Explorer tree structure. Parts can be quickly located by expanding and collapsing branches to narrow a search.



Double-click on the *SVF Flow Controls* folder and narrow down the desired part by selecting from the different types of valves, actuators, and various accessories, found in the subfolders.

Once you have selected a basic part, you will be prompted by various menus to select different characteristics of your desired part, such as size, seat and seal materials, etc.

The final selection will be shown in the graphics window, details of the part (shown in Frame E in Figure 1) along with the part number (Listed in the top frame of the Window).

The part is a 2D Front View of a model R86666TTSE

- ¼" R8 Valve
- Stainless Steel body and ends
- Stainless Steel ball and stem
- TFE Seats and Seals
- NPT ends

NOTE: Once a drawing of a part has been generated, the ordering information about that part can be accessed at any time by "right-clicking" on that part.

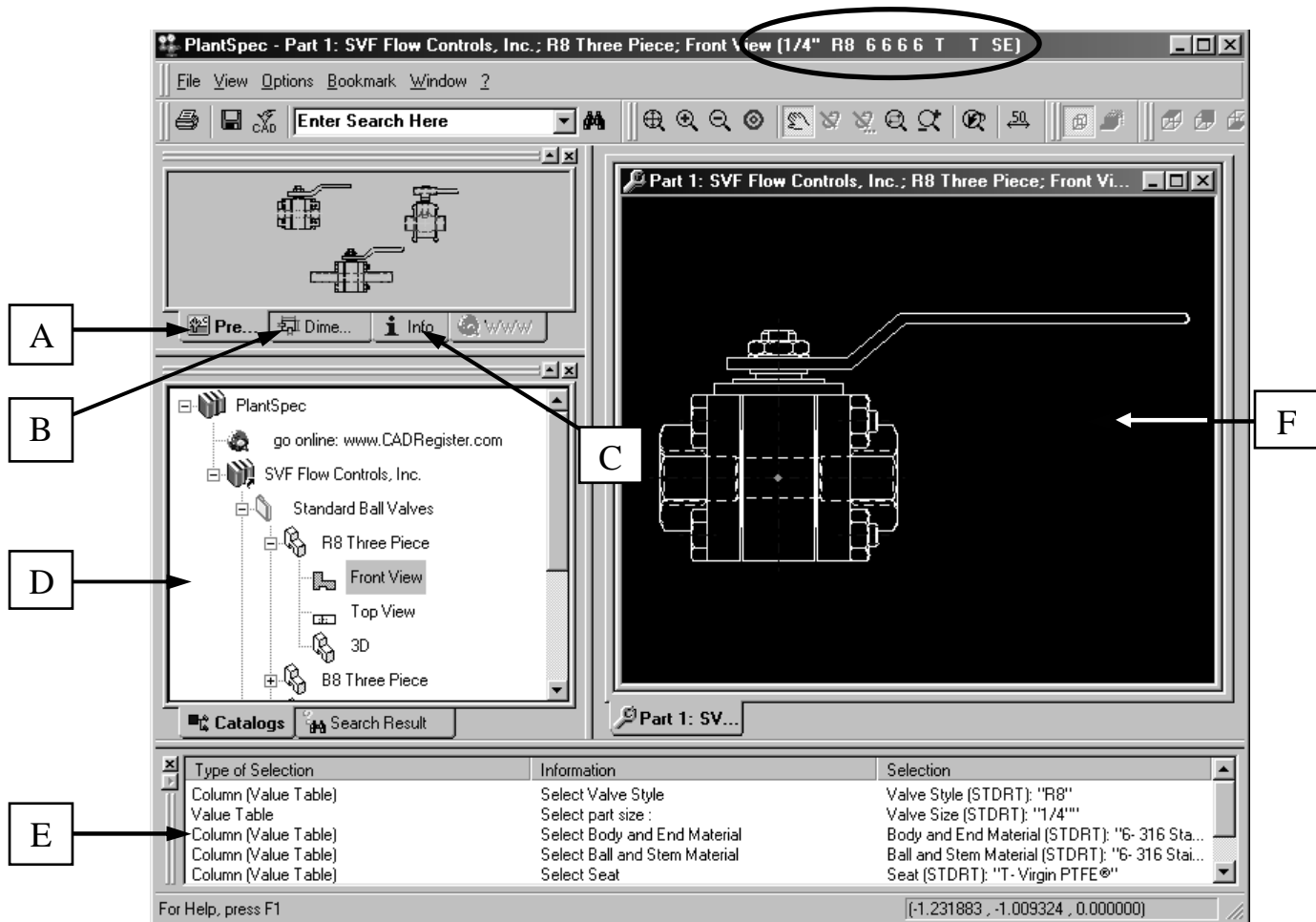


Figure 1. The main PlantSpec/*CAD Now!* window

Listed below are the different Tabs and tools:

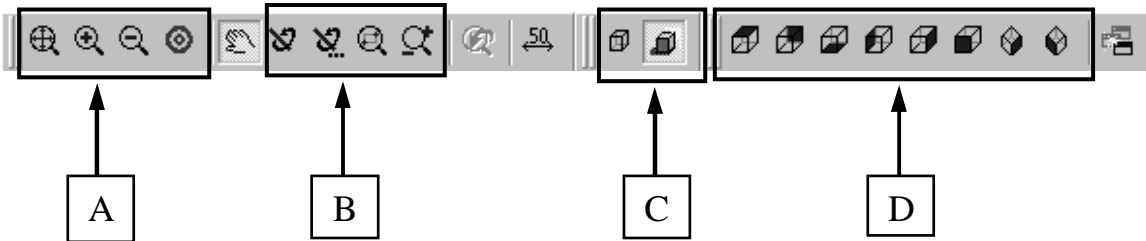
- A:** The Preview Tab, when selected, generates a general drawing or photograph of the desired CAD drawing, selected from the subfolders in “D”.
- B:** The Dimension tab when selected provides the dimensional scheme for the desired CAD drawing.
- C:** The info tab provides any data sheets and other supplemental information and documentation about the product being “configured”. This information is in PDF format.
- D:** This is the *Catalog* window that provides the folders and subfolders from which the desired CAD drawing is selected.
- E:** This is the *Value* table, showing the characteristics of the active CAD drawing. You can change materials and ends simply by double-clicking on the corresponding characteristic in the Selection column.
- F:** This is the viewport, which shows the most recently selected CAD drawing. It is possible to have several drawings generated. However, only one CAD drawing may be active at a time.

After the desired part has been selected and a drawing has been generated, there are several options.

The main PlantSpec/CAD Now! window provides a variety of actions available to the user.

If the drawing is a 3D drawing, use the various tools in the viewing tool bar (shown below) to rotate and change views for the part.

If the desired drawing is a 2D drawing, only a few of the tools are available, such as zooming in and out.



Shown here is a brief explanation of the viewing toolbar.


A: Allows you to view the desired object with its maximum extents in the viewport, zoom in, zoom out, and select a center for the drawing.

B: For 3D drawings the rotate and automatic rotate buttons allow you to either manually rotate the object or to view it while it continuously rotates. The zoom window allows you to select a zoom area by creating a box around the desired zoom section. The Dynamic zoom button allows you to zoom in and out using the mouse.

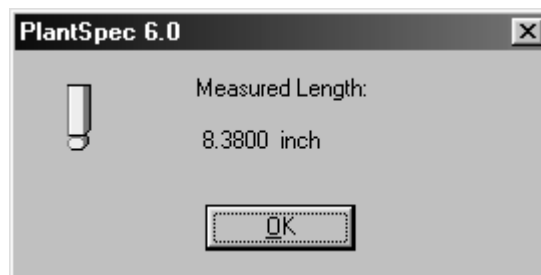
C: For 3D drawings only. Allows a drawing to be viewed in either wireframe or rendered solid formats.

D: For 3D drawings only. Each button in this section of the toolbar provides a different view for a desired drawing. These drawings are: top, back, bottom, left, right, front, and isometric views.

Extracting Dimensions

Another useful tool in the **CAD NOW!** software is the capability to extract dimensions from a drawing without having to import the part into CAD. The Dimension Tool, , allows you to measure various dimensions of the part. However, this tool is limited to 2D drawings as the snap feature does not operate on the 3D generated drawing (Dimensions from drawings can be extracted once the drawing has been imported into a CAD program). Simply select the dimension tool icon, shown earlier and choose two desired points by dragging the mouse to the corresponding locations.

A measured length form example:



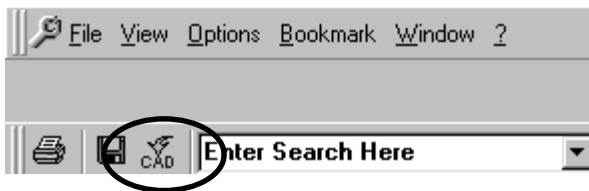
will appear, for

Printing a drawing

CAD NOW! offers the option of printing a drawing directly from the **PlantSpec/CAD Now!** main form. Use the print icon or use the File/Print menu found on the top left hand section of the frame. The part is automatically centered and printed exactly as it appears in the viewport. Printing through this medium is limited and used primarily to get a generic drawing of a desired part because there are no dimensions included on the printout. It is much more useful to import the desired part into a CAD program, such as AutoCAD, and manipulate the drawing, extract the desired dimensions, and then print out the part accordingly.

Importing into CAD

Once the part has been selected, it can be imported into any of the compatible CAD programs (see "Compatible Programs" table). Here, we will use AutoCAD 2000 2D as an example. The desired part has



been obtained by selecting the various characteristics of the valve, shown earlier. The part is now ready to be imported into AutoCAD. In order to import the part into AutoCAD, a new AutoCAD file must currently be open. Open a new file in AutoCAD, then go back to the **CAD Now!** page. Then click on the insert into CAD icon, (circled below).

After clicking on the icon, the part will automatically be inserted into the new AutoCAD file. Now you can select the specific location and rotation of the part. After inserting the part, you can use AutoCAD to edit and extract dimensions. It is a good idea to check the dimensions of the drawing in order to make sure that it is the desired part. However, when using AutoCAD, before being able to edit the drawing and extracting dimensions, you may need to explode the object a few times, since the object is inserted into CAD as a single block.

COMPATIBLE PROGRAMS

The following is a list of 2D CAD programs that CAD Now! is compatible with:

AutoCAD 13 2D	Mechanical Desktop 2.x/3.x 2D
AutoCAD 14(>= 14.01) 2D	Mechanical Desktop 4 2D, 5 2D, 6 2D
AutoCAD 2000 2D, 2002 2D	MegaCAD 2D >= 4.8/14.8
AutoCAD LT2000, LT2002	MegaCAD Makro 4.8/50 2D
AutoCAD LT 95, LT 97, LT98	Smart Sketch
HiCAD	TurboCAD V6
TurboCAD V4/V5	
Solid Edge V7 2D, V8 2D, V9 2D, V10 2D, V11 2D	

The list of 3D CAD programs CAD Now! is compatible with are as follows:

AutoCAD 13 3D	Inventor 5 3D
AutoCAD 14(>= 14.01) 3D	Mechanical Desktop 2.x/3.x 3D
AutoCAD 2000 3D, 2002 3D	Mechanical Desktop 4 3D, 5 3D, 6 3D
Caddy ++ 3D	MegaCAD 3D >= 15.0
CATIA 5 R6	ProE 2000 i^2 3D
HICAD	Solidworks 99 3D, 2000 3D, 2001 3D
Top Solid 64	Solidworks 2001 Plus 3D
Solid Edge V7 3D, V8 3D, V9 3D, V10 3D, V11 3D	
