

## TECHNICAL BULLETIN

### Using DC Viewer™

DC Viewer is an architectural view manipulation and image processing program for CADD documents. It can be used to review drawings and to create architectural presentations. In addition, you can use DC Viewer in conjunction with desktop publishing applications.

#### **Starting DC Viewer**



To start DC Viewer in Windows NT™ (version 3.51), double-click on the DC Viewer icon in Program Manager.

To start DC Viewer in Windows® 95 or later versions or Windows NT (version 4.0), choose the DC Viewer icon on the Programs section of the Start menu.

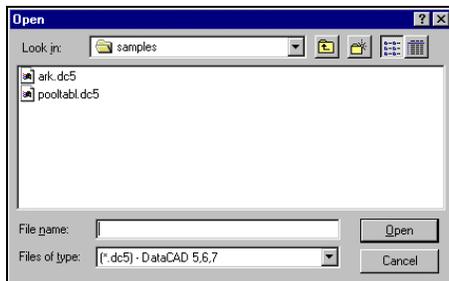
DC Viewer opens with a blank workspace within the application window.

#### **Opening a File**

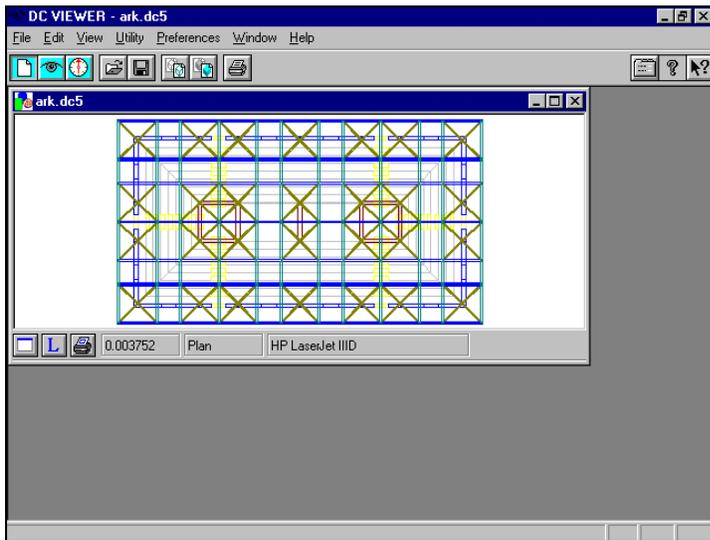
The DC Viewer tour is based on a series of sample drawings.

To open a file:

1. Press [Ctrl] + [O] or choose Open from the File pull-down menu. The Open dialog box appears.



2. Choose ARK.DC5 from the c:\dcviewer\samples directory and click OK or double-click on ARK.DC5. The ARK.DC5 drawing will open in a new document window in the application workspace.



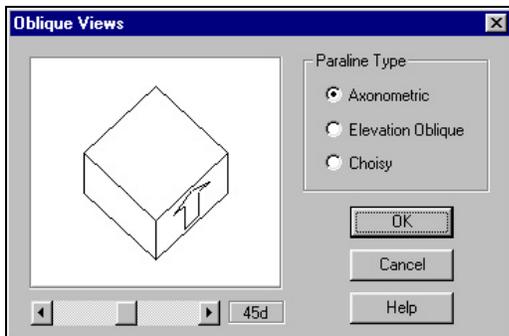
## View, Oblique

Because DC Viewer is a view manipulation tool, you have the most flexibility in establishing architecturally correct parallel and perspective views. One viewing option available in DC Viewer is Oblique.

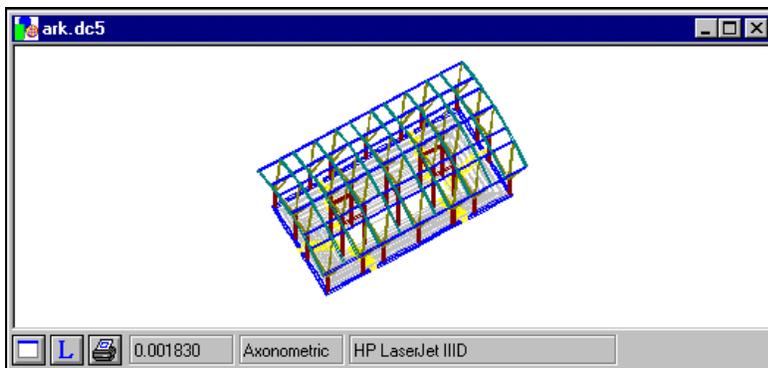


To view the ARK in Oblique mode:

1. Choose Oblique from the View menu. The Oblique dialog box appears. A hidden line removal cube representing the extents of the model is shown in the view area. The arrow points to the top and is located on the front of the model.



2. Move your cursor to the scroll bar below the view area and click on the left arrow until the angle of projection is 30 degrees. The cube in the view area moves clockwise.
3. Click OK to return to the document window with this view.



## View, Navigate (Parallel)

You can dynamically change the view of your model in the document window. In a parallel view, you can pan, zoom, and rotate.



To pan the ARK:

1. Press [Ctrl] + [Shift] + [N] or choose Navigate, Pan from the View menu. The cursor in the document window changes to a hand. If you entered the Navigate mode by using the toolbar icon or the shortcut key, your cursor may change to a different mode. If so, press the [Tab] key to toggle to the appropriate cursor.
2. Click and hold the left mouse button and move the mouse in any direction to pan the model in the document window.
3. Toggle between navigation modes by pressing [Tab]. Press [Shift] + [Tab] to scroll backwards through the navigation modes. The cursor changes based on the function you use:

Pan		Pans the active document window
Zoom		Zooms the active document window
Rotate X		Rotates around the X axis
Rotate Y		Rotates around the Y axis
Rotate Z		Rotates around the Z axis

When you are using any of the Rotate modes, you can press and hold the [Ctrl] key while moving the mouse to rotate around a particular combination of axes. Moving the mouse up or down rotates around the X-axis; moving the mouse left or right rotates around the other axis.

Rotate X & Y		Rotates around the X and Y axes
Rotate Y & X		Rotates around the Y and X axes
Rotate Z & X		Rotates around the Z and X axes

4. Press [Esc] to exit the navigation mode.

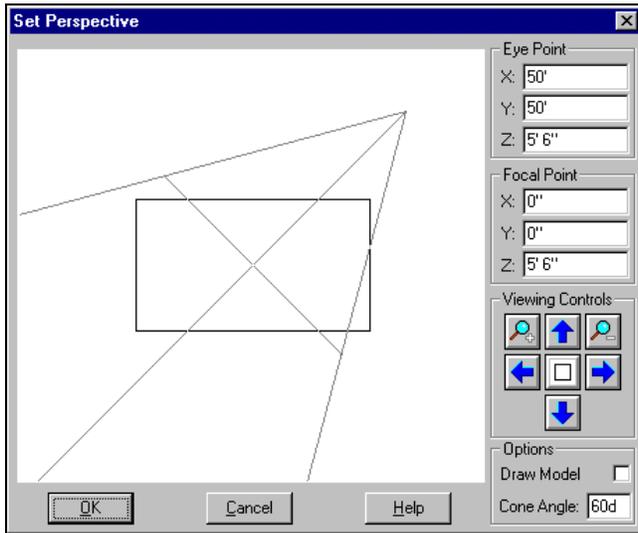
## View, Perspective

With the DC Viewer, you can create a perspective view.



To view the ARK in Perspective mode:

1. Choose Perspective from the View menu. The Perspective dialog box appears. A bounding box representing the extents of the model is shown in the view area.



2. Move the cursor to the lower left corner of the view area and click the left mouse button once. This places the eye point of the observer.
3. Drag the mouse diagonally to the center of the view area and click the left mouse button once. This sets the focal point.
4. Click OK to see your new perspective view in the document window.

### **View, Navigate (Perspective)**

In a perspective view, you have different navigation options.



To navigate the ARK in Perspective mode:

1. Press [Ctrl] + [Shift] + [N] or choose *Navigate, Step Forward/Backward* from the View menu. The cursor in the document window changes to a pair of footprints with an anchor. The anchor indicates a fixed focal point for navigation.

If you entered the Navigate mode by using the toolbar icon or the shortcut key, your cursor may change to a different mode. If so, press [Tab] to toggle to the appropriate cursor.

2. Click and hold the left mouse button and move the cursor up or down to step forward or backward from the model in the document window. Like parallel navigation, you can toggle between navigation modes by pressing [Tab]. The cursor changes based on the function you are using:

Step Forward/ Backward		Steps forward or backward in a perspective view
Step Up/Down		Steps up or down in a perspective view
Step Left/Right		Steps left or right in a perspective view
Look Up/Down		Looks up or down in a perspective view
Look Left/Right		Looks left or right in a perspective view

You can use a fixed focal point in the Step navigation modes. This option is on by default in DC Viewer.

- |                       |   |  |
|-----------------------|---|--|
| Step Forward/Backward |   | Steps forward or backward around a fixed focal point |
| Step Up/Down          |  | Steps up or down around a fixed focal point          |
| Step Left/Right       |  | Steps left or right around a fixed focal point       |

3. Press [Esc] to exit navigation mode.

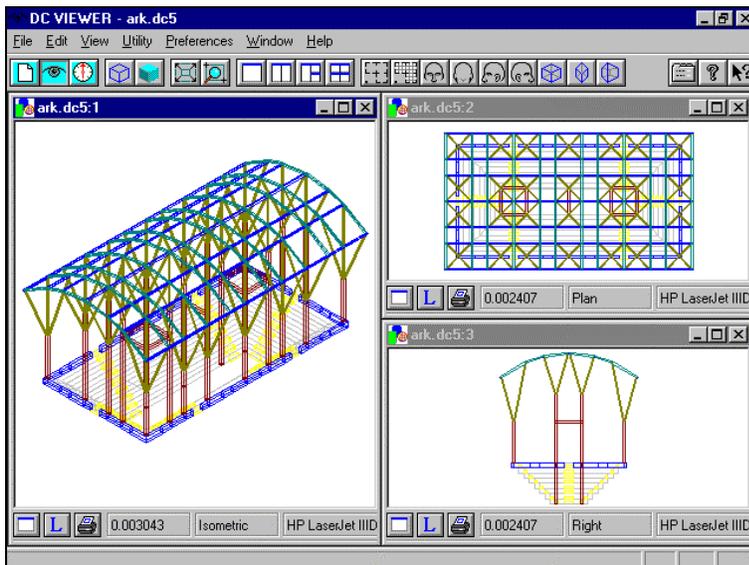
## Window, Layout

The Layout command chooses from four predefined layouts: one, two, three, or four open document windows. The layout you choose adds the specified number of document windows to your workspace and displays a different predefined parallel view in each document window.



To choose a layout for the ARK:

1. Choose Layout, 3 Views from the Window menu. The new document windows displays three views: isometric, plan, and right elevation of the ARK.DC5 drawing.



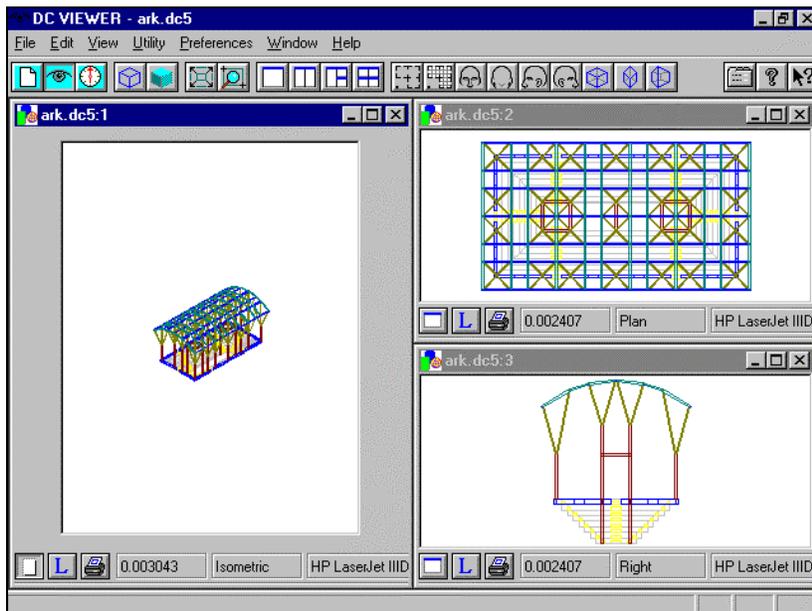
## PaperView™ and Printing

PaperView™ shows your model on a piece of on-screen paper which represents the printable area of the selected printer. The model will print exactly as it appears on this on-screen paper. The on-screen paper corresponds to the current paper size and orientation of your printer. You may set up a different printer and/or paper setup for each document window.

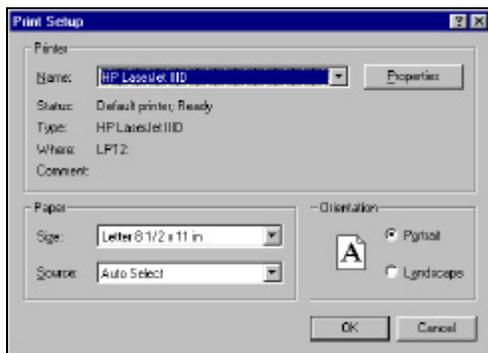


To see the ARK in PaperView mode and print:

1. Press [F2]. On the document control bar of the window labeled ARK.DC5:1, click on the PaperView button.



2. Click on the Maximize button in the upper right corner of the document window to enlarge this view.
3. Click on the Print Setup button on the document control bar. The Print Setup dialog box appears.



4. Click on Landscape to change the paper orientation. Press OK to return to PaperView and see the paper layout change.
5. Exit PaperView mode by clicking on the PaperView button on the document control bar of the ARK.DC5:1 window.

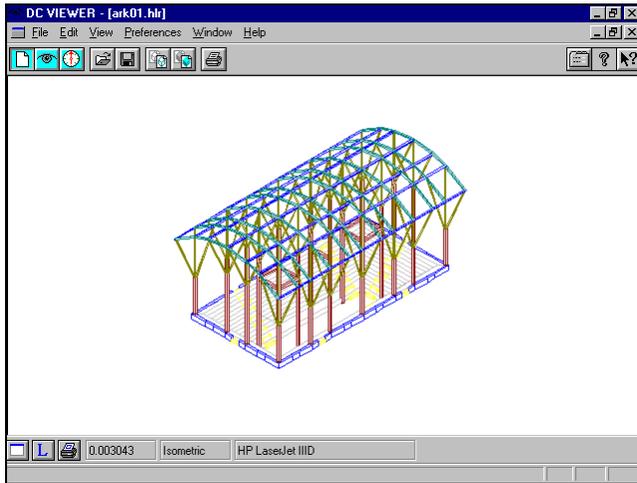
### ***Hidden Line Removal***

DC Viewer creates hidden line removals on the active view of the model. A hidden line removal displays only those lines or surfaces of the model that would be visible if it was solid. It removes surface edges that are obstructed from the observer.



To perform a hidden line removal on the ARK:

1. Choose Hidden Line Removal from the Utility menu.



You can still use the navigate commands to change the view of your hidden line removal image.



To zoom in on the ARK hidden line removal image, press [Ctrl] + [PgDown] or choose Zoom In from the View menu.

The hidden line removal image can also be copied to the Clipboard as a vector image to be pasted into other Windows applications.



To copy to the Clipboard, press [Ctrl] + [W] or choose Copy as Vector from the Edit menu.

2. Choose the ARK.DC5:2 from the Window menu. This becomes the active document window that is used in the next exercise.

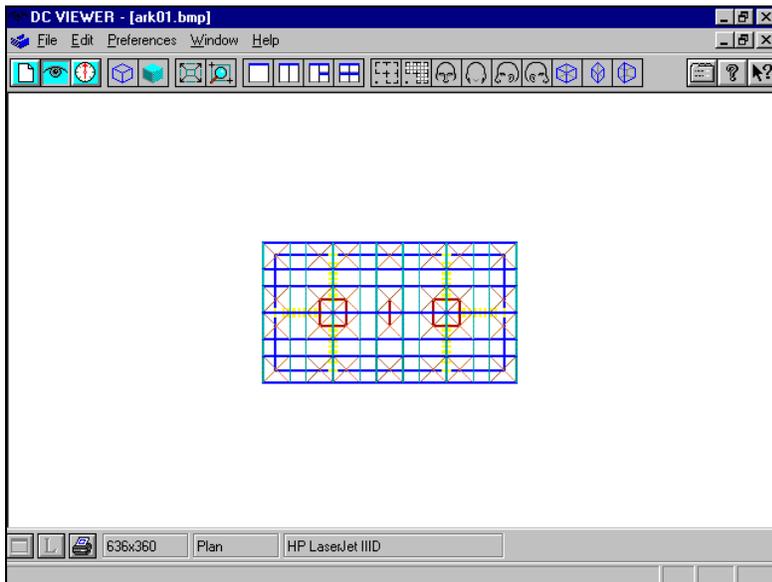
## **Shading**

DC Viewer creates shaded images of the active view of the model in Windows .bmp (bitmap) format. The shaded image is a static raster image of a fixed resolution. Shading a model shades all the surfaces in the model.

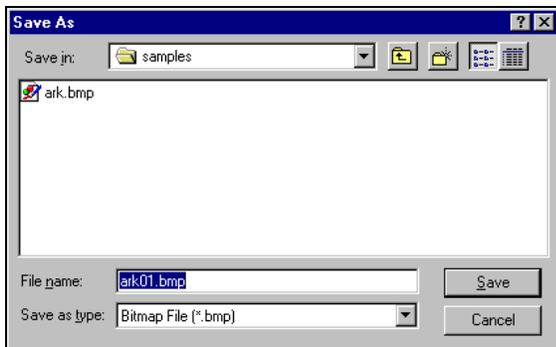


To shade the ARK:

1. Choose Shade from the Utility menu. You can then save this raster image as a .bmp file.



2. Choose Save As from the File menu to save the ARK01.BMP shaded image. The Save As dialog box appears.



3. Click OK to save the file as ARK01.BMP in the default directory or select a new filename and/or directory to save the file and click OK.

### **Closing a File**

To close the ARK01.BMP document window:

1. Choose Close from the File menu. You are asked if you want to save the .BMP window.
2. Choose [No]. This file was saved in the previous exercise.
3. Repeat this for all other open document windows so that your application workspace is empty. If you are prompted to save a file, choose [No].

### **Exiting DC Viewer**

To exit DC Viewer in Windows NT or Windows 95 (or later):

1. Press [Alt] + [F4], or choose Exit from the File menu, or double-click on the control menu button in the upper left corner of the application window