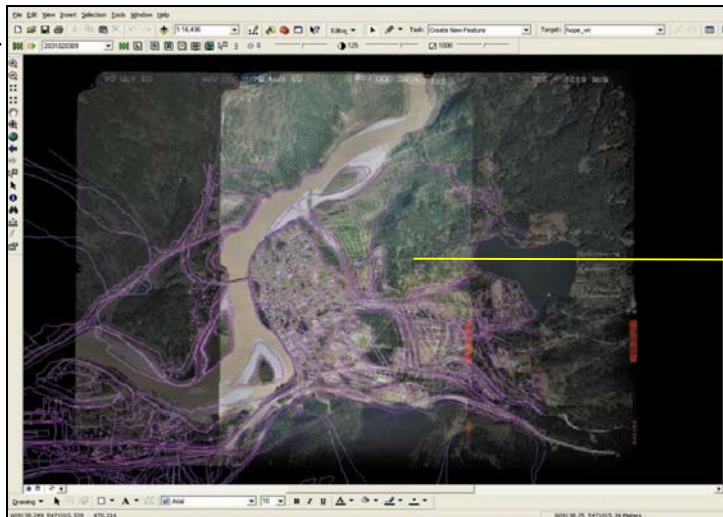PurVIEW

AT A GLANCE

PurVIEW
Toolbar ⇨

Stereoscopic image
model display with
geodatabase objects
superimposed.

⇧ **Real-time XYZ coordinate**

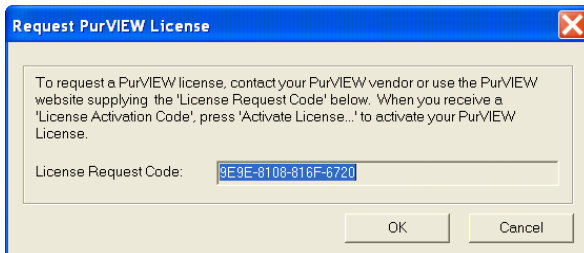**Installing the software**

Prerequisites:

- Must have the English version of Windows XP or Windows 2000 installed.
- Must have a supported graphics card installed and Stereo OpenGL enabled.
- Must have administrator privileges.
- Must have ArcGIS 9 installed and licensed for the computer.

Double-click on the file named **setup.exe** to install the software.

Licensing the software

1. Once installed, start the ArcGIS Desktop ArcMap application.
2. Select View>Data Frame Properties.
3. Select the PurVIEW tab and press the License button.
4. Press the Request License button on the PurVIEW License Information dialog.

Request PurVIEW License

To request a PurVIEW license, contact your PurVIEW vendor or use the PurVIEW website supplying the 'License Request Code' below. When you receive a 'License Activation Code', press 'Activate License...' to activate your PurVIEW License.

License Request Code: 9E9E-8108-816F-6720

OK   Cancel

cont'd

Licensing the software… cont'd.

5. Contact your PurVIEW vendor and supply the License Request Code displayed. A corresponding License Activation Code will then be supplied to you.

6. Press the Activate License button on the PurVIEW License Information dialog.
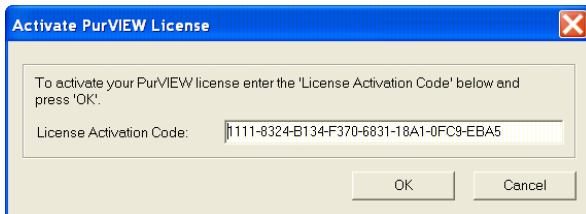
7. Enter the License Activation Code you received and press OK.

8. The PurVIEW License Information dialog will be updated to reflect the PurVIEW features supported. Press OK.

9. The Data Frame Properties PurVIEW tab displays the license expiry period, if any.

10. You are now ready to start using PurVIEW.

|| PurVIEW ▶

for ESRI *ArcGIS*™ 9

Displaying the PurVIEW toolbar

1. From View> Toolbars choose the PurVIEW toolbar.

2. Drag the PurVIEW toolbar and dock it horizontally.

Customizing the PurVIEW toolbar
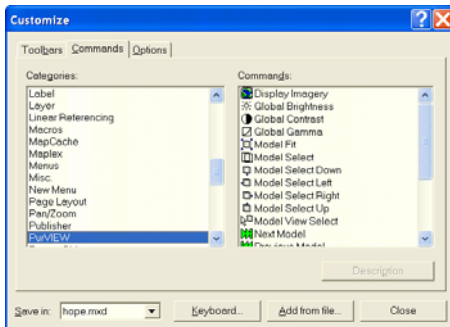
1. Select Tools>Customize and click the Commands tab.

2. Click Add from file and select
   C:\Program Files\PurVIEW\PurVIEWRenderer.dll.

3. Click PurVIEW in the Categories list.

4. Click the required command in the Commands list, and drag and drop the command onto the PurVIEW toolbar or any ArcMap menu or toolbar.

5. Add any additional commands required.

6. Close the Customize dialog box.

Available PurVIEW Tools

	Display Imagery	Toggle image display on or off
☼	**Global Brightness**	Set global brightness
◗	**Global Contrast**	Set global contrast
◪	**Global Gamma**	Set global gamma

☼ 10 ————┝——— ◗ 97 ————┝——— ◪ 980 ————┝———

Click on the icon to reset to the default value. Drag slider bar to change the value. Use Up/Down keys to change the values by a small amount. Use PgUp/PgDn keys to change the values by a large amount.

	Model Fit	Center the map window on the active image, model or overview
	Model Select	Select a model from a dropdown list of available models to display
	Model Select Above	Select the model above the current model
	Model Select Below	Select the model below the current model
	Model Select Left	Select the model to the left of the current model
	Model Select Right	Select the model to the right of the current model
	Select model	Click in the map window to select the nearest stereo model
	Next Model	Select the next model from the available models
	Previous Model	Select the previous model from the available models

|| PurVIEW ▶

for ESRI *ArcGIS*™ 9

Available PurVIEW Tools, cont'd

||▶	**PurVIEW**	Toggles the PurVIEW renderer on or off
L	**View Left**	Display the left component image of the current model
×	**View None**	Display none of the component images of the current model
⌗	**View Overview**	Display an overview of images from all the available models
R	**View Right**	Display the right component image of the current model
S	**View Stereo**	Display the stereo pair of images for the current model
ẑ	**Virtual-Z**	Toggle Virtual-Z cursor on or off

Retaining PurVIEW settings

1. Click the **||▶** PurVIEW tool to turn off the PurVIEW renderer.
2. Select File>Save.
   The PurVIEW settings including the model setup, current model selected and image enhancements are saved in the map document.
3. The next time the map document is opened, click the **||▶** PurVIEW tool to turn on the PurVIEW renderer.

PurVIEW

for ESRI *ArcGIS*™ 9
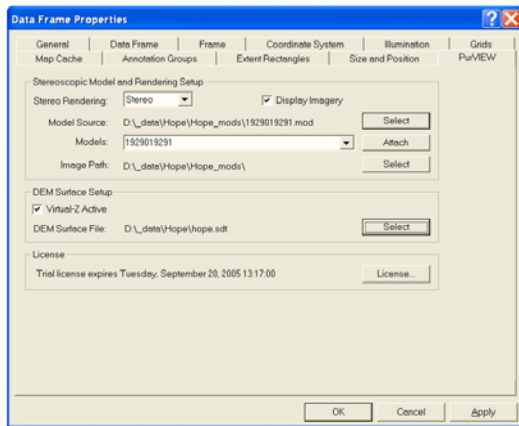
Quick Start

1. Copy or import source Model/Image and terrain surface data into a ArcGIS project directory.

2. Start the ArcGIS Desktop application ArcMap. Open an existing or new map document.

3. Select the appropriate ArcGIS project or folder in Directory. Add layers or create a base map if required.

4. Select View>Data Frame Properties and select the PurVIEW tab.

5. From the **Stereo Rendering** dropdown list, select the **Stereo** display mode or its component **Left** or **Right** image.

6. Check the **Display Imagery** checkbox.

7. For the **Model Source**, click **Select** and choose a model file.

8. From the **Models** dropdown list, highlight the model of interest, then click **Attach**.

9. For the **Image Path**, click **Select** and choose an image file.

10. Check the **Virtual-Z Active** checkbox, then click **Select** and choose a surface data file.

11. Click OK to close the Data Frame Properties dialog.

Image display

- Using the default RGB band combination

  PurVIEW image display uses the ArcGIS Desktop default RGB band combinations for 3 or more bands. To change the band combination:
  On the Main menu, click Tools>Options>Raster tab.

- Using non-standard image file format extensions

  Image file extension not matching the standard file format extension needs to be added. For example: Using .TF as TIFF file extension.

  To set the file extension using the Raster File Formats Properties Dialog:
  On the Main menu, click Tools>Options>Raster tab, then click File Formats, scroll down to TIFF format and add .TF to the file extensions.

Default resampling mode.

PurVIEW uses the default resampling mode when displaying images. To change the default resampling mode, use the Advanced ArcMap Settings utility.

Default setting for creating raster image pyramids

Image files without pyramids will be re-built based on the default setting. To change the default:
On the Main menu, click Tools>Options>Raster tab, then click General tab to change the Build Pyramid Dialog Settings.

Surface models

- **Arc-Tin Dataset DEM Surface file**

  Display the Data Frame Properties:

  On the Main menu, click View>Data Frame Properties>PurVIEW tab>Select beside the DEM Surface File. Change the Show of type to TIN dataset. Browse to the surface file and click Open

- **SDT Surface files**

  To use SDT surface files, add to the list of file recognized by ArcCatalog:

 In ArcCatalog Main menu, click Tools>Options>File Types>New Type.

  Set the File extension to SDT, and the Description to SDT Surface.

  Display the Data Frame Properties dialog:
  On the Main menu, click View>Data Frame Properties>PurVIEW tab>Select beside the DEM Surface File.

  Change the Show of type to SDT Surface Files (*.sdt). Browse to the surface file and click Open

|| PurVIEW ▶
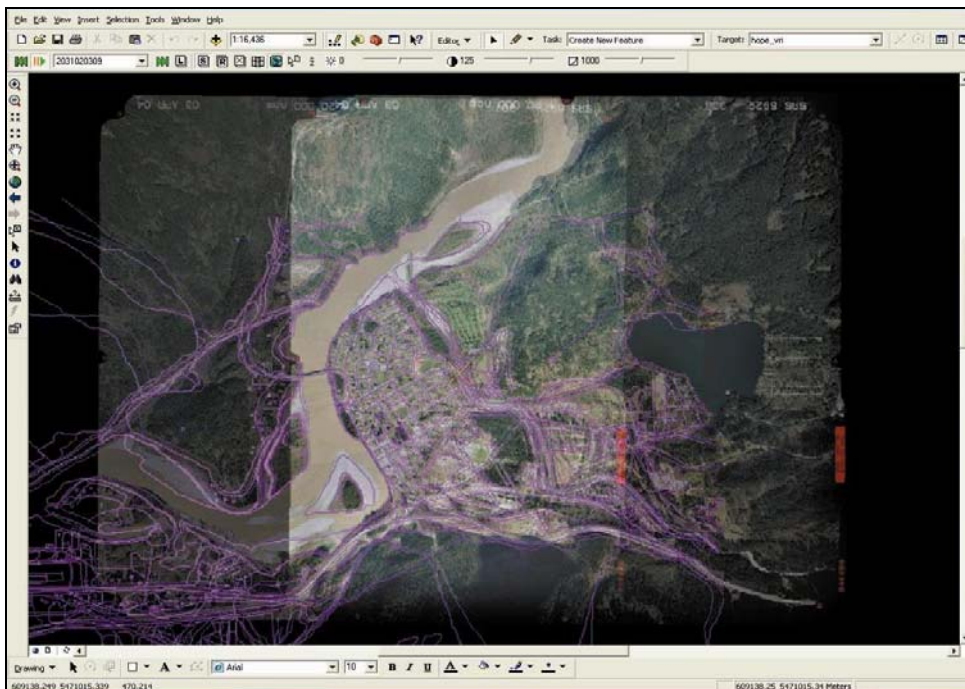
- Click **||▶** to display the pre-selected stereo model
- Select a new stereo model by highlighting a model in the dropdown list
- Use **⊞** View Overview tool to display an overview of the images for all available models
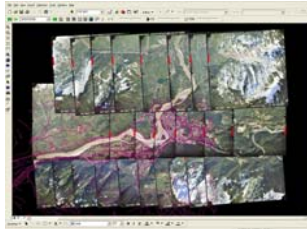
- Use **S** View Stereo tool to display the current model in stereo
- Use **⫧▯** Select Model tool and click in the data view to select the best available model
- Use standard ArcMap tools to zoom and pan the stereo image model.
- Real-time X/Y/Z cursor-coordinate is displayed in the lower left status area
- Use the mouse scroll-wheel for manual override of the _Virtual-Z_ floating cursor. By preset amounts, forward rotation decreases Z and backwards rotating increases Z. Deviation is shown as (± Z). If the floating cursor is placed at the object's top, (+Z) normally indicates the object height.

  Z-sensitivity settings – the preset amount can be changed from 1/16~16X in map units by holding down <Shift> and rotating the mouse wheel. Values finer than 1/8 map units are excessive.

  Fast Z adjustment (20X) – hold down <Ctrl> and rotate the mouse scroll wheel to change the Z at the rate of 20x the preset amount.

  Reset Z offset – toggle Virtual-Z $\hat{z}$ off and on.

- To modify a sketch vertex using PurVIEW
    1. Click the Current Task dropdown arrow and click Modify Feature.
    2. Click the Edit tool.
    3. Click the line, polygon or point that you want to change a vertex for.
    4. Position the pointer over the vertex you want to modify until the pointer changes.
    5. Right-click to select the vertex.
    6. Left-click and drag to the desired the X/Y location of the vertex,
       or left-click and scroll wheel to change the Z value.
       A beep tone will sound to indicate the vertex XYZ has been changed to the new value.
    7. Right-click over any part of the sketch and click Finish Sketch.