

# Geologic and Geophysical Models for Osage County, Oklahoma, with Implications for Groundwater Resources

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## Quick Help

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# INTRODUCTION

The following Quick Help tutorial is generic for all platforms, with the exception of the first two images that are Windows™ specific. This tutorial shows some basic functions of EarthVision™; additional information is found in the “3DviewHelp” folder or from Dynamic Graphics Inc. (DGI) at [www.dgi.com](http://www.dgi.com). It is recommended that the viewer and contents be copied to a local hard drive to improve the speed of operation. Also see Systems Requirements.

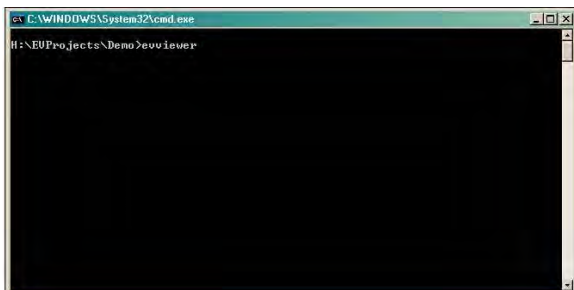
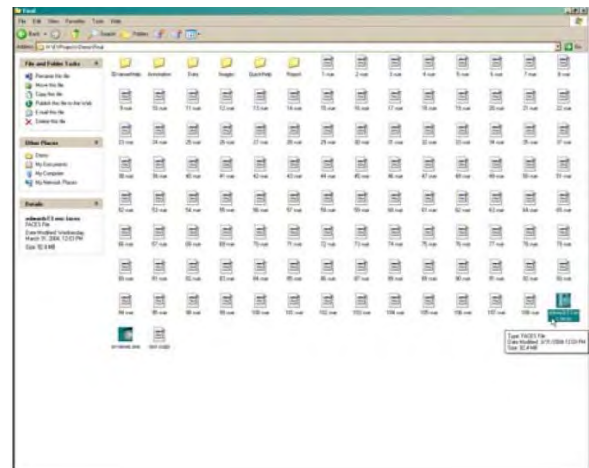
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## QUICK START

### NAVIGATION

Navigation is done using mouse and keyboard commands. Pressing the “CTRL” key and a mouse button shows a wire frame of the model; when keys are released model is rendered. Pressing the “SHIFT” key and a mouse button shows real-time rendering; speed of rendering is dependent on speed of hardware. Left mouse button rotates model in space; right mouse button moves model right, left, up, and down; middle mouse button zooms in and out of the model. F1 thru F6 keys slice the model; the “←” and “→” keys stretch and flatten the “Z” exaggeration. Primary menus such as MAIN are identified with upper case characters.

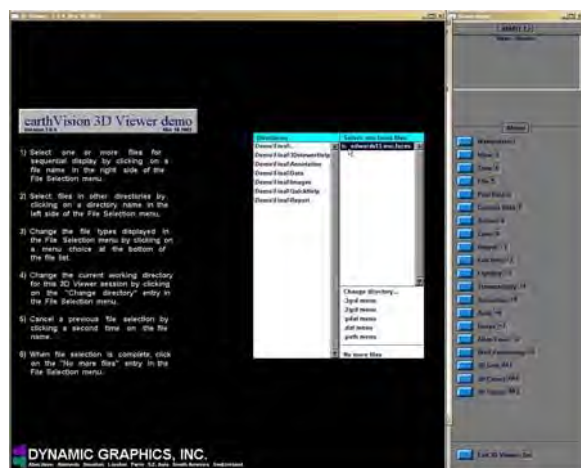
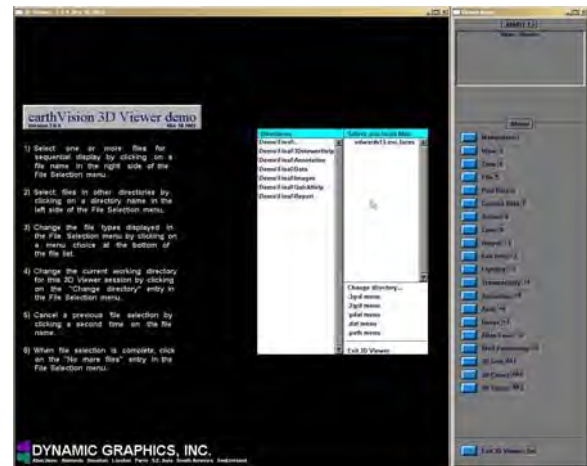
Regardless of platform, go to Directory where the EarthVision viewer software is located (evviewer). Following example is for Windows XP. Start viewer with a double click on the viewer icon.



Viewer may also be started by command line.

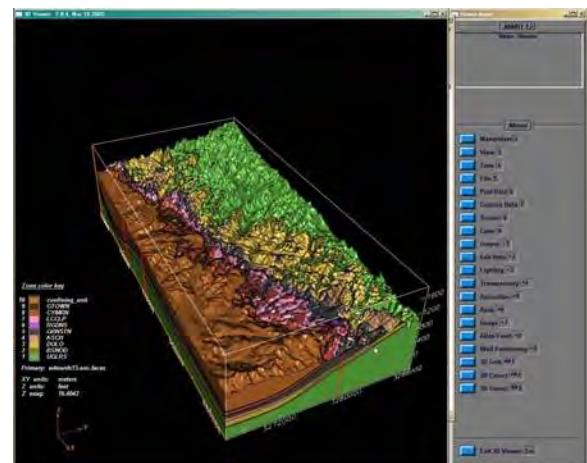
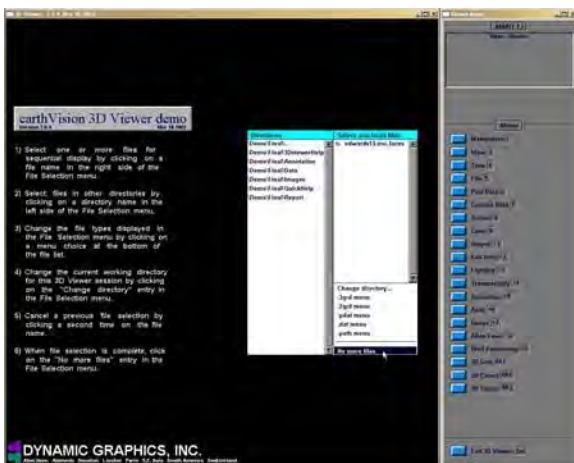
After viewer starts, there are two windows: the “3D Viewer window” on the left, and the “Viewer menu” window on the right. Shown is the image selection window in the 3D Viewer window, and the MAIN menu. Pressing the “ESC” key on the keyboard at any time will close the viewer.

In the Viewer menu, characters shown after menu items are hot keys. Pressing the character “+” on the keyboard from any of the menus will bring up the MAIN menu. Menu window must be active for menu to work, thus it may require two mouse clicks to access a new menu option.



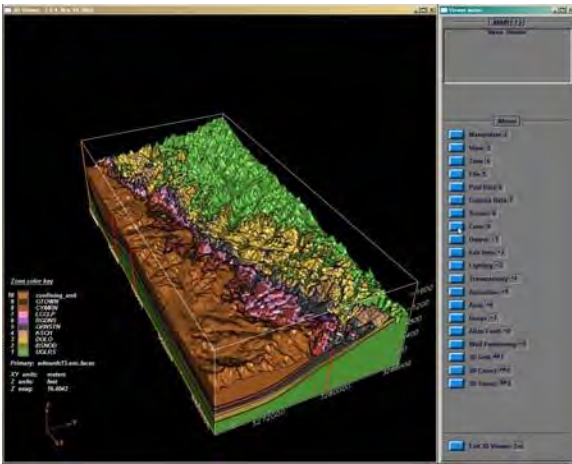
Select either the “SIR\_2016\_5067\_Osage.sliced.enc.faces” file to view the geology model or the “SIR\_2016\_5067\_Osage.HEM.sliced.enc.faces” file to view the integrated geological and geophysical model. Note that a number appears to the right of the file selected.

After the file is selected, choose “No more files” to view the image.

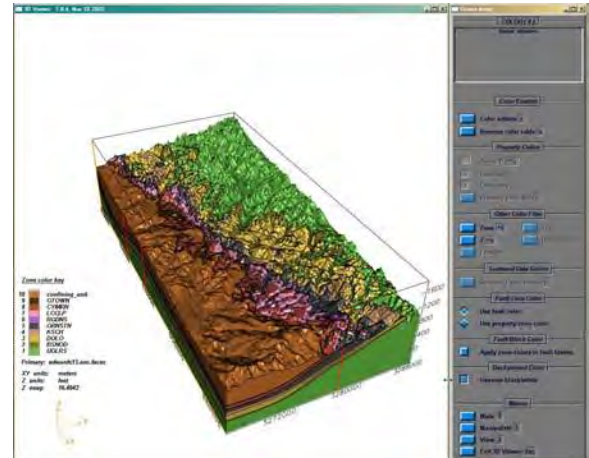
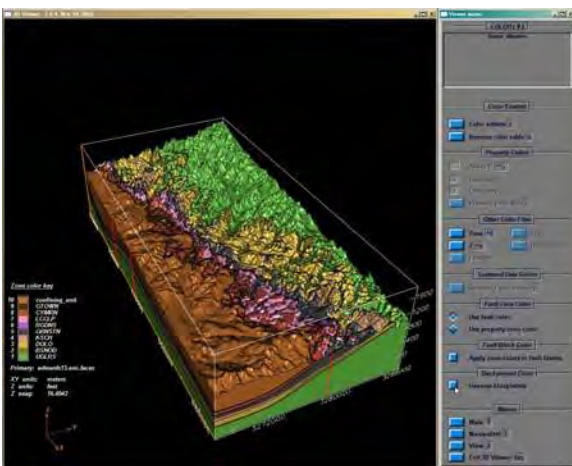


## BACKGROUND COLOR

Depending on need, a light background is often better for viewing the model. From the MAIN menu, select the COLOR menu.

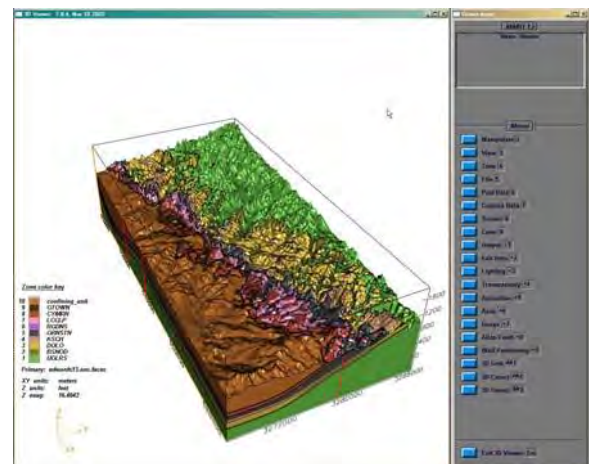


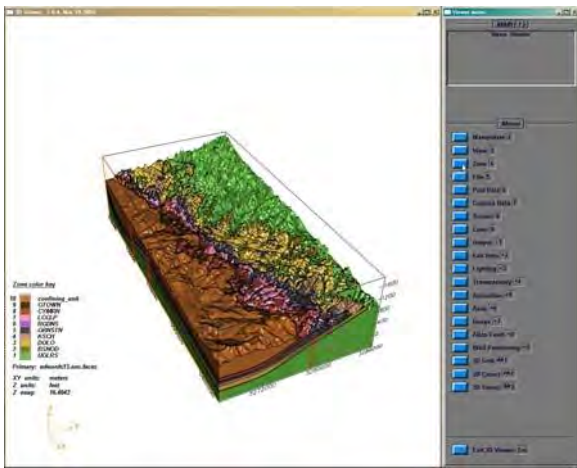
Select the reverse black and white option from the –Background color menu.”



## DISPLAYING LAYERS

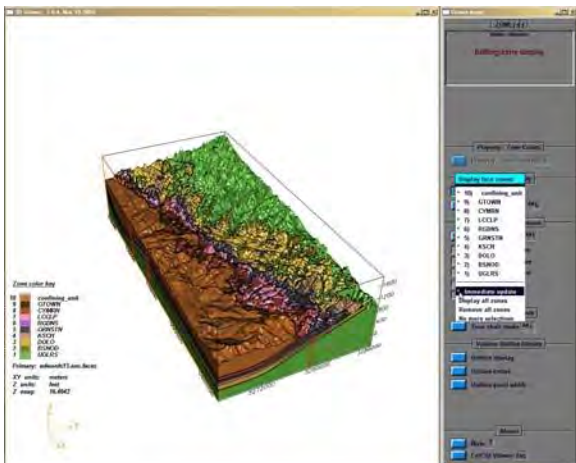
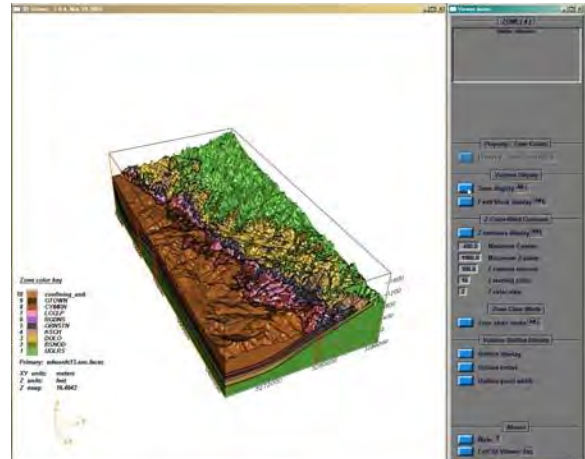
Access the MAIN menu by pressing –+” on the keyboard. The alternative is to select –Main” at the bottom of working menu.





To add or remove different layers select the **Zone** option from the MAIN menu.

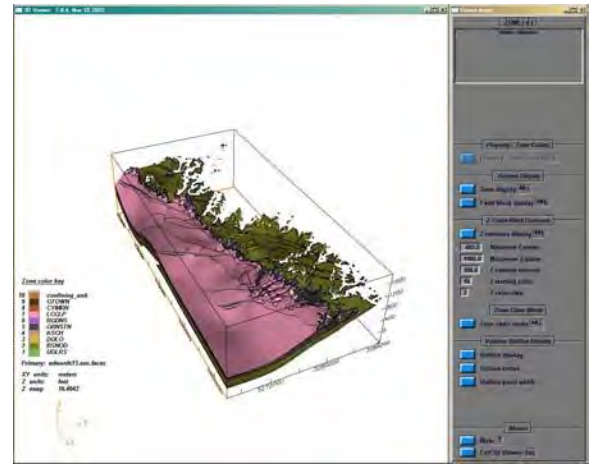
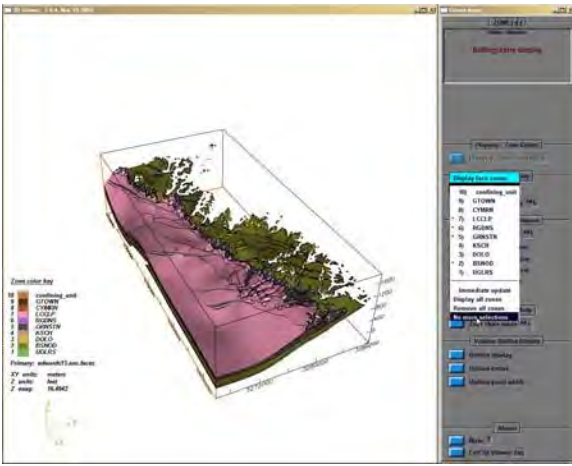
Select the **Zone display** option from the ZONE menu. A menu of different layers is displayed; select the **Immediate update** option to view choices in real time.



Displayed layers (zones) have an asterisk next to them.

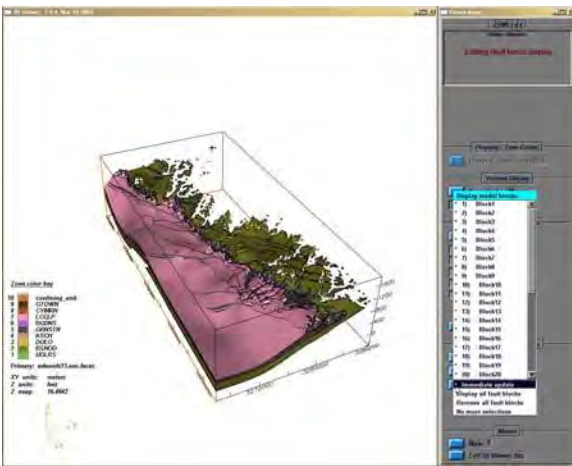
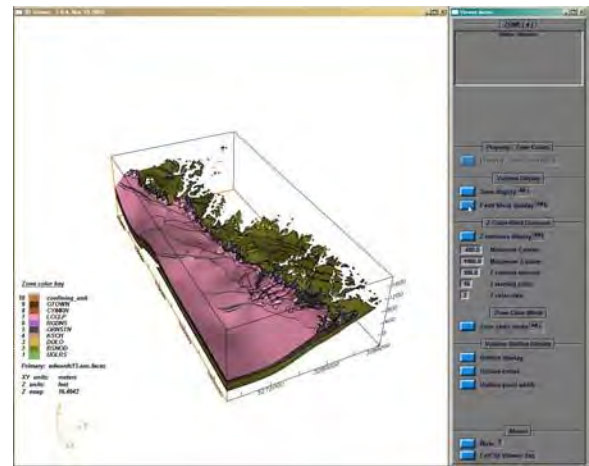
After selecting layers to view, choose **No more selections** to clear selection window.





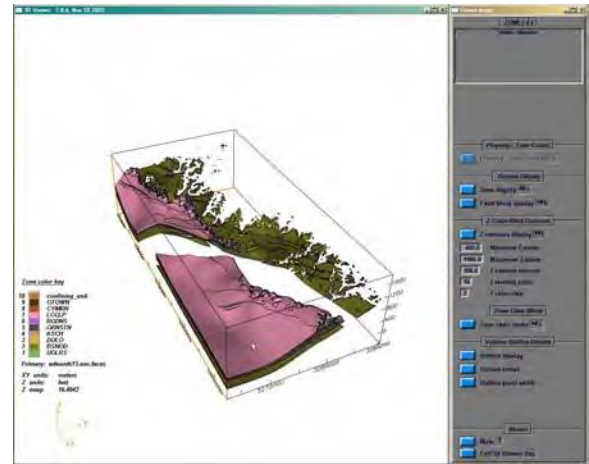
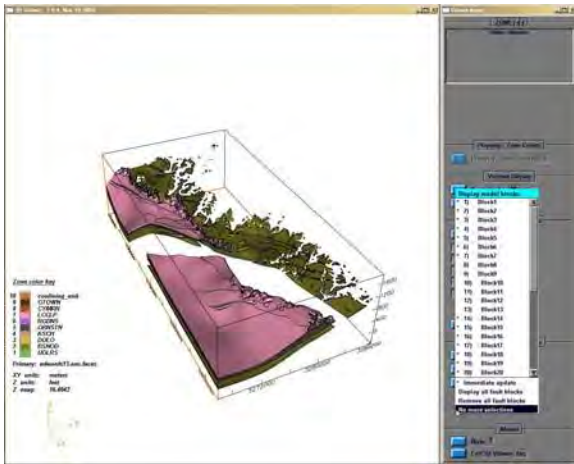
# DISPLAYING FAULT BLOCKS

Select the "Fault block display" option from the "Volume Display" option of the ZONE menu.



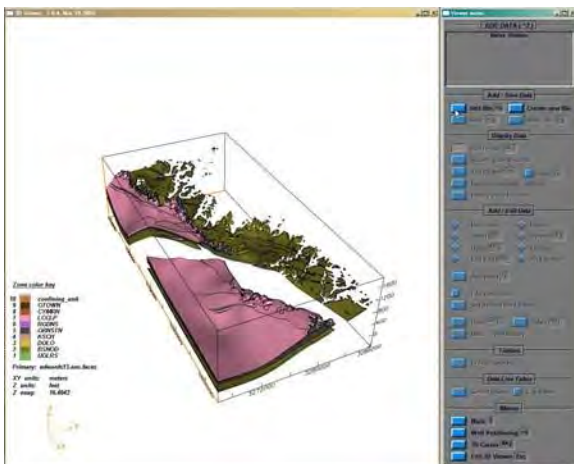
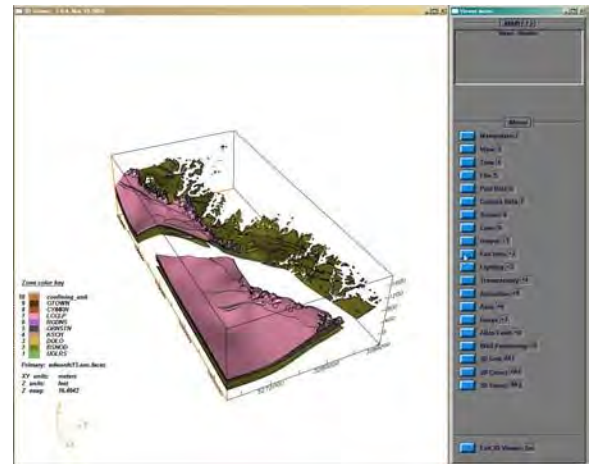
Select "Immediate updates," then add or remove fault blocks. Displayed fault blocks have an asterisk next to them.

After selecting fault blocks to display, choose "No more selections."



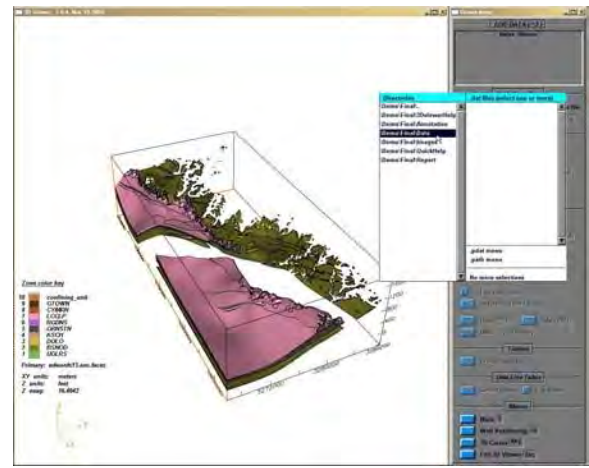
## ADDING DATA FILES

Press the character **+** on the keyboard to access the MAIN menu, and then select the **Edit data** option.



From the EDIT DATA menu select **Add file** from the ADD/Save Data option.

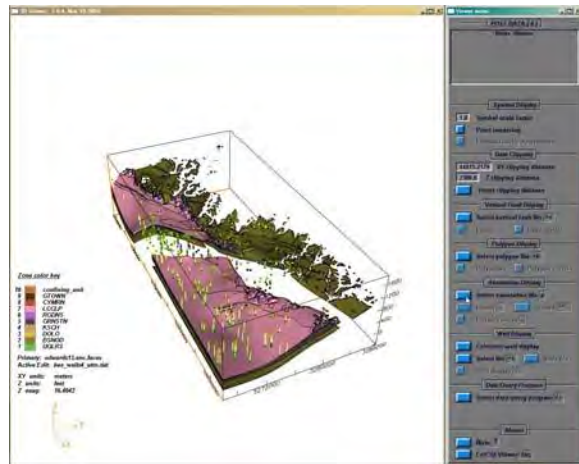
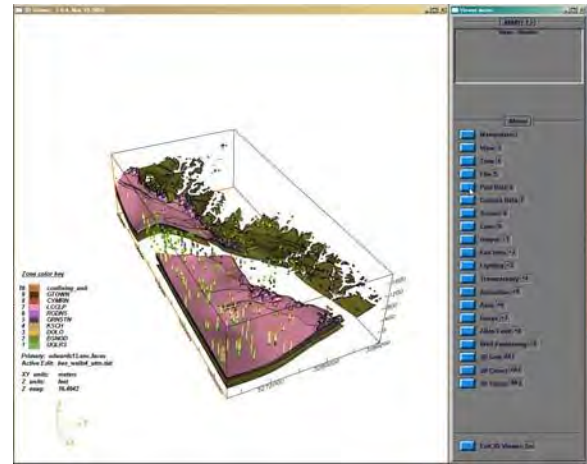
Drill down into the appropriate directory and select the data file to view.

[illegible]

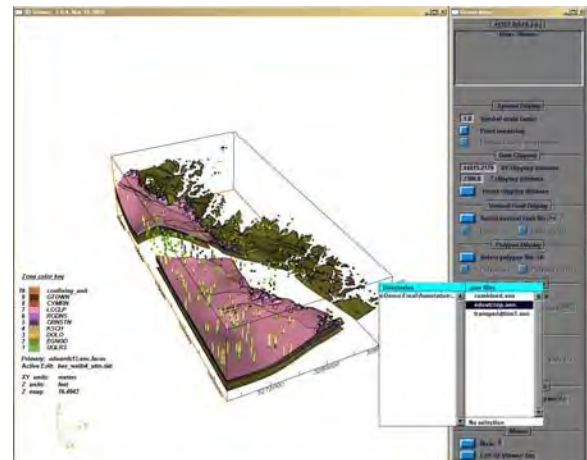


## ADDING ANNOTATION FILES

To view annotation features, press the character **←**” on the keyboard to activate the MAIN menu and select **—PdsData.**”

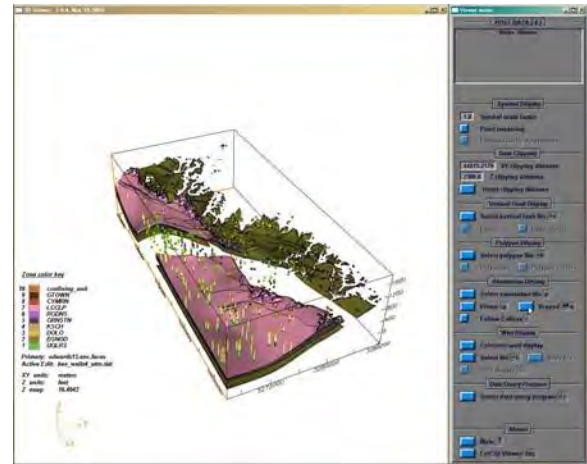


Select the **—Select annotation file**” from the **POST DATA** menu.

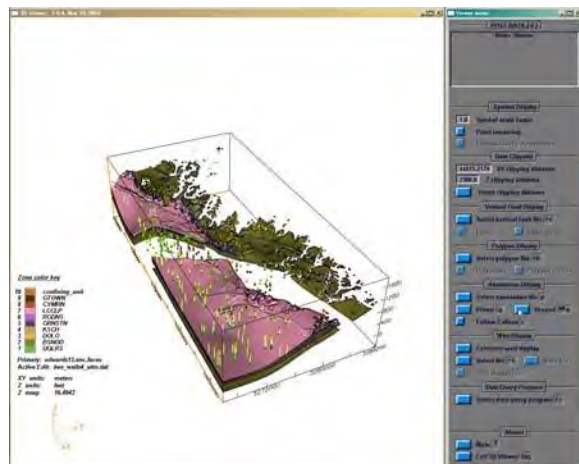
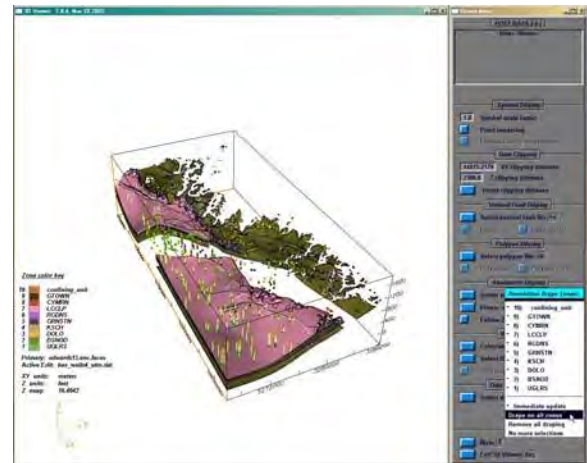
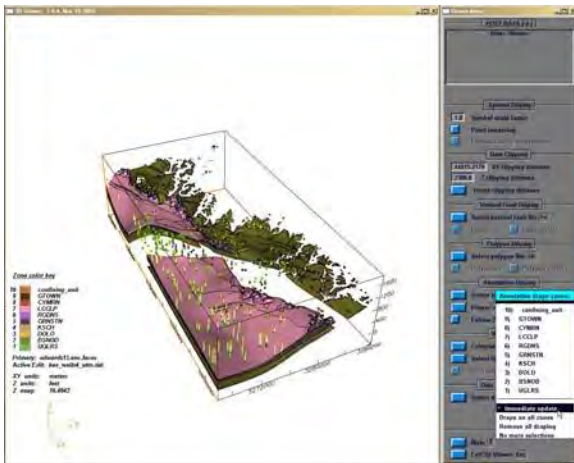


Select the annotation file from the selection menu.

There are two options to display annotation files:  
 option one is **–planar,** which shows the annotation  
 file above the surface of the model; option two is  
**–draped,** which drapes the annotation file on the  
 surface of the model.



Select option to display the annotation file.



Select the **–No more selections** option to clear the  
 selection menu.

To exit, go to the bottom of the MAIN Menu and  
 exit, or press ESC.

## GLOSSARY

**Annotation file**—A type of data file that displays information on a model. Examples would be boundaries of a deposit, roads, topographic or cultural feature(s).

**Raster line**—The line of pixels drawn on a computer or television screen. Many lines are drawn per second giving the illusion of constant movement or realism.

**Render**—Adding three-dimensional (3-D) qualities for realism to a computer model, object, or simulation, one raster line or object at a time.

**Zones**—Same as a geologic horizon or layer, may also indicate other geophysical or structural features, such as faults.

## SUPPORTED SYSTEMS CONFIGURATIONS

### *Supported Silicon Graphics® Configuration*

Revision: December 2002

Specification	Description
<b>Models</b>	<b>O2, OCTANE, Onyx2</b> Indy, Indigo2, POWER/Indigo2, Crimson, Onyx, Indigo
<b>CPUs</b>	<b>MIPS R5000, R10000, R12000</b> R4400, R4600, R8000
<b>OS Version</b>	IRIX 6.5
<b>Memory</b>	96 MB minimum; 192 MB or more preferred; 400+ MB swap
<b>Software</b>	Impressario for printing in general and PhaserPrint for printing to Tektronix printers
<b>Disk</b>	4 GB or more preferred
<b>EarthVision Release</b>	7.0.1 November, 2002

- EarthVision is not specifically optimized for the POWER/Indigo2 R8000 compiler architecture.



## Supported Sun Microsystems® Configuration

Specification	Description
Series	Ultra Workstations, Enterprise Servers
Models	EarthVision 2D Only: <b>Any Ultra</b> EarthVision 3D: <b>Ultra 2, 60, 80 Enterprise Server Models with Creator3D or Elite3D graphics</b> Ultra 1 Models 140E, 170E, 200E, Ultra 30, 10
OS Version	Solaris 2.6, 2.7, 8 (1)
Memory	96 MB minimum; 192 MB or more preferred; 400+ MB swap
Graphics Configuration	<b>Creator3D or Elite3D</b> graphics board (for EarthVision 3D)
Software	OpenGL 1.1.2, 1.2
Disk	4 GB or more preferred
EarthVision Release	7.0.1 November, 2002

Revision: December 2002

1. Solaris 8 is required to run OpenWorks/SeisWorks

- EarthVision requires the Motif 1.2.3 Runtime library patch (Sun Patch-ID# 103461-18).
- EarthVision can run under Solaris CDE 1.0.1, OpenWindows 3.5, or Motif 1.2 Window Managers. Motif shared libraries are included with EarthVision.

## Linux Configuration

Revision: December 2002

EarthVision is supported and tested only under Red Hat Linux 7.x.

### PC Desktop

Specification (1)	Minimum	Recommended	Ideal
CPU	Pentium II, 400 MHz	Any Pentium 4 Processor	Pentium 4, 3.0 GHz or faster
Memory	256 MB	512 MB	1 GB, PC1066 RDRAM
Disk (2)	20 GB	40 GB	60 GB
Graphics (3) (4)	Any 8 MB Video Card	Any 32 MB GeForce* Card	128 MB GeForce4 Ti 4600

## PC Laptop

<b>Specification (1)</b>	<b>Minimum</b>	<b>Recommended</b>	<b>Ideal</b>
<b>CPU</b>	Pentium II, 300 MHz	Pentium III, 850 MHz	Pentium 4, 2.2 GHz
<b>Memory</b>	256 MB	512 MB	1 GB
<b>Disk (2)</b>	10 GB	20 GB	32 GB
<b>Graphics (3) (4)</b>	Any 8 MB Video Card	Any 16 MB Video Card	32 M GeForce4Go
<b>Screen (5)</b>	14.1" XGA	15" SXGA	15" UXGA

1. This is the minimum configuration to run EarthVision. For improved performance, please see the recommended or ideal configurations.
2. EarthVision software requires 500 MB of disk space. Working on data locally is recommended for improved performance.
3. For optimal video performance with OpenGL and texture mapping when using a video card (TNT, GeForce, GeForce2, Quadro), it is recommended that you use the accelerated drivers provided by NVIDIA on their website.
4. 3D stereo viewing requires NVIDIA Quadro4® line of graphics cards, Elsa® Revelator glasses, and the Linux driver from NVIDIA version 3123 or later.
5. Laptops are designed for optimal display at the resolution of the LCD screen. For example, a UXGA LCD screen will not display images as clearly when set to SXGA resolution.

## Windows® 2000/NT 5.0 Configuration

Revision: December 2002

Both Exceed 7.x or 8.0 and Exceed3D 7.x or 8.0 from OpenText (<http://connectivity.opentext.com/>) are needed for EarthVision under Windows 2000.

### PC Desktop

<b>Specification (1)</b>	<b>Minimum</b>	<b>Recommended</b>	<b>Ideal</b>
<b>CPU</b>	Pentium III, 500 MHz	Any Pentium 4 Processor	Pentium 4, 3.0 GHz or faster
<b>Memory</b>	256 MB	512 MB	1 GB PC1066 RDRAM
<b>Disk (2)</b>	20 GB	40 GB	60 GB
<b>Graphics (3)(4)</b>	Any 16 MB Video Card	Any 32 MB GeForce* Card	128 MB GeForce4 Ti 4600
<b>OS Version</b>	Windows 2000	Windows 2000	Windows 2000

### PC Laptop

<b>Specification (1)</b>	<b>Minimum</b>	<b>Recommended</b>	<b>Ideal</b>
<b>CPU</b>	Pentium II, 366 MHz	Pentium III, 850 MHz	Pentium 4, 2.2 GHz
<b>Memory</b>	256 MB	512 MB	512 MB
<b>Disk (2)</b>	10 GB	20 GB	32 GB
<b>Graphics (3)(4)</b>	Any 8 MB Video Card	Any 16 MB Video Card	32 MB GeForce4Go
<b>Screen (5)</b>	14.1" XGA	15" SXGA	15" UXGA
<b>OS Version</b>	Windows 2000	Windows 2000	Windows 2000

1. This is the minimum configuration to run EarthVision. For performance, please see the recommended or ideal configurations.
2. EarthVision software requires 500 MB of disk space. Working on data locally is recommended for improved performance.
3. For optimal video performance with OpenGL and texture mapping when using a video card (TNT, GeForce, GeForce2, Quadro), it is recommended that you use the accelerated drivers provided by NVIDIA on their website.
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