WinPICS v5.10

Quick Start

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Introducing this Quick Start

This quick start uses a real project to introduce you to WinPICS's main features.

We present this information in the order that you might typically use for your own projects. If you follow this quick start from beginning to end, you'll have a better understanding of the *WinPICS* workflow. The skills you learn in the early exercises will help you in later exercises. This quick start uses the 2D3DInt demo project. However, if you prefer, you can use your own data for the exercises; just make sure your project has 2D and 3D seismic, and horizons (see About our Demo Data). Otherwise, to follow this quick start exactly, you will need a clean copy of the 2D3DInt demo project. To obtain a clean copy, please contact Divestco support.

As a supplement to this quick start, you should also read the *WinPICS Interface Guide*, which explains the main areas of the interface and the options available on the software's toolbars and menus.

Please refer to the *WinPICS* help file for more details on any of the features discussed in this quick start. You can open the help file by selecting **Help | WinPICS Help** in the *WinPICS Application* toolbar.

ABOUT OUR DEMO DATA

We based this quick start on the 2D&3DInt demo project, which uses the Stratton 3D seismic dataset from Kleberg and Nueces Counties in Texas. The Bureau of Economic Geology, at Austin's University of Texas (www.beg.utexas.edu) has made the dataset available. This project has a 3D dataset with ten 2D lines that were extracted from the 3D seismic and placed back in the same location. Due to the lack of sonic logs, the seismic data has been merged with grid, well, and culture information from southern Alberta. A synthetic seismogram is available at well 04-35.



The well locations, grid, and culture data are fictitious.

EXERCISE 1: COPY THE DEMO DATA TO YOUR PC

You only need to do this exercise if you chose to use the 2D3DInt data and have received a copy from Divestco's support.

- 1. Save the 2D3DInt data to a folder on your computer.
- 2. Right-click on the folder and select **Properties**.
- 3. In the *General* tab, clear the **Read-only** check box to enable you to work with the files in the folder. You are now ready to open this project in *WinPICS*.

As you work through the exercises in the quick start, you change the project data. If you want to do the exercises again, or if another user wants to do the quick start on your computer, you should delete the 2D3DInt project and then repeat the steps again to prepare a clean copy of the project.

MAP DISPLAY FUNCTIONS

The main display of the Map window, where *WinPICS* graphically displays your project's data, is called the *Map* view. Around the *Map* view are the menus, toolbars, and the *Object Manager* that make up the rest of the *Map* window interface. This section introduces you to tools that help you navigate and work with data in the *Map* view.

ZOOM

You will find the zoom features on the *Map Navigation* toolbar.



SCROLL

The *Map* window has a standard scroll bar with scroll box. To move the view, you can drag the scroll box, or click on a scroll arrow.

You can also use the middle mouse button to move the *Map* view in any direction. Hold down the middle mouse button (or wheel), and drag the *Map* view to a new location.

HORIZONS

You will find the **Posting Status** toolbar at the top of the **Map** window. This shows the current horizon and any reference horizon. You have not posted a horizon yet, so the **Posting Status** toolbar will display the horizon name as **<<None>>**.



Use the *Horizon* tab of the *Object Manager* bar to work with your horizons in the *Map* window.



EXERCISE 2: POST A HORIZON

Follow these steps:

- 1. Select the *Horizon* tab of the *Object Manager* bar. This tab has a folder for horizons and a folder for faults.
- 2. Click \blacksquare to expand the **Horizons** folder to display all of the horizons in this project.
- 3. Double-click on the horizon named **test** to post it on the map.



Notice that the posting status changes to indicate that the test horizon is posted, and it's posted in time (ms).



As you progress through the quick start, you will see that there is more than one way to post a horizon.

4. Look at the numbers on the color bar. These are the smallest and largest time values on the test horizon. The colors in the *Map* view correspond to these time values. So the lower time values show as yellow and red in the *Map* view, and the higher time values show as blue and purple.



OBJECT MANAGER

You can use the **Object Manager** bar to turn on map elements such as seismic, horizons, and labels. WinPICS displays the selected elements in the **Map** view. Turning off elements is a quick way to display only the data you need to see.

EXERCISE 3: USE THE OBJECT MANAGER TO SELECT MAP ELEMENTS

 Select the *Layers* tab on the *Object Manager* bar. Each folder represents the elements in a map layer. A black check mark beside a folder indicates all of the elements in that folder are turned on and will display in the *Map* view. A grey check mark indicates that at least some of the elements are turned on. By default, most of the layers in the 2D3DInt project are turned on.



2. Click the <+> button beside the **Seismic Labels** folder to show its contents.

Layers			▼ ₽
	Vell Labe Vell Labe Vell Seismic La J 3D Ar J 3D La J 3D La J 3D La J 2D Lin Ap Over Soutours Contours Co	ls abels abels abel bel he Label lays res farking s hes ting rlays	I
		ť	I >
Lay Sei	Ho	Poi	List

- 3. In the next section, you will select a 2D line for display. But first, clear the **3D Label** check box by clicking on the check box. Notice how the 3D labels disappear from the edges of the seismic area. This reduces the clutter on the map and makes it easier to distinguish the 2D lines from the 3D survey lines.
- 4. Click the **Seismic** tab to see the seismic layers.
- 5. Click ⊕ beside the **3D** folder to see all the 3D lines. You can turn groups of lines on or off together. We'll turn off two groups of 3D lines to help us focus on the lines we want to work with.



6. Clear the check boxes beside **BURIED** and **STRATTON** to remove the BURIED and STRATTON 3D lines from your map. Notice how, without the STRATTON 3D data, the test horizon no longer displays time as colors on the map.

WORKING WITH THE WINPICS INTERFACE

This chapter offers an overview of the *WinPICS* interface. For a thorough explanation of the interface, refer to the *WinPICS* Interface guide.

Application toolbar	The toolbar has buttons and features that are unique to a
	project. Use the toolbar to open projects, set system preferences,
	etc. You can open multiple projects, maps, or seismic sections at
	the same time.

Map and Seismic windows	These windows operate independently from each other. Each window has its own unique menu bar and toolbar. You will usually have one Map window, and one or more Seismic windows open at the same time.
Open and customize toolbars	Each <i>WinPICS</i> window includes many built-in toolbars that you can open as needed. To select or customize these toolbars, select Preference Customize Toolbar Layouts .
Select Seismic	You must open a Map window before you can select Seismic.
Close WinPICS	<i>WinPICS</i> is not completely closed until you close the main application toolbar.
Select items	Use the left mouse button to select items.
Scroll	Use the middle mouse button to pan across the map or seismic displays. If you only have a two-button mouse, you can simultaneously hold the <ctrl></ctrl> key and the right mouse button to simulate a middle mouse button. If you have a wheel mouse, click and hold the wheel then drag the mouse to pan your view in any direction.
Quick access	<i>WinPICS</i> features a number of buttons and hot keys that give you quick access to menu items. You can find a PDF showing all of the hot keys in the help file (Table of Contents Technical Reference).
Hot keys	<i>WinPICS</i> lists hot keys on the right side of menu selections. To customize the hot keys, select Preference Customize Toolbar Layouts .
Active windows	Typing any key on the keyboard when the mouse is hovering over an inactive window will move the focus to that window. Alternatively, you can click the mouse on a windows' title bar. Select Preference Customize Toolbar Layouts to control whether or not windows can be activated with the keyboard.

THE INTERFACE DESIGN

The *WinPICS* interface is designed to enable users to efficiently carry out their real workflows. The menu commands are comprehensive, giving access to all of the *WinPICS* functionality. The toolbar buttons activate the most commonly used functionality. Shortcut menus enable users to work productively on the task at hand. Finally, keyboard hot keys instantly call up functionality.

Knowing where to find the toolbar buttons you need, along with learning to use the shortcut menus and hot keys, will help you to make the most efficient and productive use of *WinPICS*.

OPEN A WINPICS PROJECT

To start using *WinPICS*, you must first open a project. Although you will work with a single project in this quick start, you can have more than one project open at once.

EXERCISE 4: OPEN THE BLACKFOOT PROJECT

1. To start *WinPICS*, double-click *m* on your desktop to open the *WinPICS* **Application** toolbar.

WinPICS		
Project Name: 2D3DINT	🔹 🛱 🏕 🛱 🗃 🚅 🗸 Sessions:	📼 📸 🎭 👷 💭 Project 🕬 Import 🔎 Export 🍄 Interpret 👺 Seismic 🥊 📅 Preference 🥅 🦕 Help 💂

- 2. Click 🗳 , and locate the Blackfoot project folder.
- 3. Click **<OK>**. *WinPICS* opens the *Map* window below the *Application* toolbar, displaying the project's 3D survey outline, 2D lines, well locations, and grid and culture data.



After you open a project in *WinPICS v5.10*, the name of your project appears in the **Projects** list on the **Project Manager** section of the **Application** toolbar.

WinPICS .	
🕕 Project Name: 2030INT 💦 🎽 🏕 🛱 📕 Sessions: 🔹 📲 📆 🥵 🙀 🖉 Project 🍽	Import 🍽 Export 🌮 Interpret 👺 Seismic 📕 📅 Preference 🚍 🍾 Help 💂

SEISMIC DISPLAY

The **Seismic** window is where you display and work with the seismic information you selected from the **Map** window. WinPICS gives you many options to alter the display so you can see the data in the way that best helps you interpret it.

EXERCISE 5: SELECT SEISMIC FROM THE MAP

- 1. On the **Map Selection** toolbar, click 20
- 2. Move the cursor over the **Map** view. Notice that as you hover your cursor over a 2D line, the line highlights. *WinPICS* displays the name of the highlighted line in the Status bar on the bottom of the Map window.
- 3. Move the mouse over 2D line LN75I. You can find LN751 by reading the labels around the seismic lines.
- 4. When the line is highlighted, left-click to select it. A new *Seismic* window opens, displaying the LN75I seismic line as wiggles and traces.



About the Map window and Seismic window: The **Map** window is the main interface for working with the elements in your project map. The **Seismic** window is where you work with seismic data for a specific line or fence. When you work with seismic, you will typically have one **Map** window open, and one or more **Seismic** windows open. If you have two monitors, it's probably a good idea to keep the **Map** window open on one monitor, and the **Seismic** window(s) open on the other. You can always toggle between **Map** windows and **Seismic** windows by holding down **<Alt>** on your keyboard and pressing **<Tab>** to cycle through your open applications.

EXERCISE 6: CONFIGURE SEISMIC DISPLAY OPTIONS

You can change the settings of the Seismic window for optimal viewing.

- 1. On the **Seismic Display** toolbar (on the left side of the **Seismic** window), click to open a list of display modes.
- 2. Experiment with the different display modes. Each mode depicts your seismic data using a different graphical format. You have the following options:

Icon	Mode	Icon	Mode
×.	Wiggle Trace		Colored Pixel
X	Wiggle Trace Area		Overlayed Wiggle
2	Colored Area	\$	Overlayed Wiggle Area

- 3. Once you have finished experimenting, select the **Overlayed Wiggle** display mode.
- 4. Now, experiment with the gain increase and decrease options. On the *Seismic Display* toolbar, click
 to make a gain increase. Click
 to make a gain decrease. Each time you click a button, you

further increase or decrease the gain.



The wiggle settings are for **Seismic** window display purposes only. The settings are lost when you close the **Seismic** window.

- 5. Return to the **Display Mode** list, and select the **Colored Pixel** display mode.
- 6. On the **Seismic Display** toolbar, click to refine the seismic display to the nearest pixel. This reduces any blocky or abrupt color changes, giving the data a smoother appearance
- 7. Select the **Overlayed Wiggle** display mode again.
- 8. On the *Data Navigation* toolbar, on the left of the *Seismic* window, you will find the same zoom tools that you used in the *Map* view. Practice zooming in and out of the *Seismic* view.

 Use the middle mouse button (or wheel) and the scroll bars to pan around the *Seismic* view, just as you did in the *Map* view. Notice the colored dots on the seismic. You may have to scroll through the seismic to see all of them. These are the horizon cross-postings from the intersecting lines DIAG, LN84X, and 04-35.

EXERCISE 7: DRAG AND DROP TO DISPLAY SEISMIC IN AN EXISTING WINDOW

When you display a seismic line in an existing **Seismic** window, *WinPICS* replaces the contents of that window with the new seismic data, but keeps all display parameters the same. This helps you to make quick comparisons between seismic lines.

To compare lines, you must drag and drop the new line from the *Map* window into a *Seismic* window.

- 1. First, make sure your **Seismic** window is open in its own monitor, or if you are working with only one monitor, in a different part of the monitor than the **Map** window.
- 2. In the **Posting Status** toolbar, make sure the test horizon is still selected.
- 3. Next, you need to display the 3D seismic again. In the *Map* window, select the *Seismic* tab of the *Object Manager* bar.
- 4. Select the **3D folder** check box. The BURIED and STRATTON 3D projects appear on the map. Now you can see the colors on the 3D seismic again.
- Move the cursor around the *Map* view until the status bar at the bottom of the *Map* window reads Inline 80.



- 7. Click and hold. A small box with wiggle traces will appear.
- 8. Drag and drop this box into the open *Seismic* window. The title bar of the *Seismic* window should read STRATTON.YDO InLine 80. The line in the *Seismic* view will have the same display mode, gain adjustments, time scale, trace scale, palette, and any other display parameters you have already set for the *Seismic* window. Notice that the *Seismic* view contains the segment of the line where you selected it in the *Map* view.

HOW TO QUICKLY VIEW THE 3D SURVEY

You can get a good look at a 3D seismic survey by displaying the inlines or crosslines in sequence in the **Seismic** window.

EXERCISE 8: NAVIGATE THROUGH THE SEISMIC TRACES IN A 3D SURVEY

 Open the *Inline 80* window from the previous exercise. Notice the crossline values displayed along the top of the *Seismic* view.



2. Move your cursor in the *Seismic* view along the line until it's at crossline 100. The status bar at the bottom of the window will read **Inline 80 Xline 100**.



To see the status bar at the bottom of the **Seismic** window or **Map** window, make sure the window is fully expanded.

- 3. Without moving the mouse from this position, right-click and select Switch ² from the shortcut menu. The title bar of the *Seismic* window changes to **Xline 100**, and crossline 100 is now displayed in the *Seismic* view.
- 4. On the left of the *Seismic* window, the *Data Navigation* toolbar has several tools you can use to move through your seismic data. Click repeatedly to step through, and display, adjacent crosslines. As you step through the crosslines, the *Seismic* window title will change to match the selected crossline, and the *Seismic* view will show the seismic for the selected crossline. Notice that each line is also displayed in the *Map* view.
- 5. Click \P to step back through some of the crosslines.
- 6. You can step through the 3D survey faster. Click to open the **Set In/Xlines to move per step** dialog box.

Set In/Xlines to move per step
Input
Number Value : 1
Enter an integer between 1 and 999999:
OK Cancel

- 7. Type **5** in the box. *WinPICS* will now display every fifth line as you step through the seismic.
- 8. Click **<OK>** to close the dialog box and return to the **Seismic** window.
- 9. Switch from the crossline direction back to the inline direction by clicking ${\ensuremath{\overline{\$}}}$.
- 10. Use () and () to step through every fifth inline.

DISPLAYING AND PICKING HORIZONS ON SEISMIC DATA

Now that you have data in the *Seismic* window, you can pick horizons on it. *WinPICS* lets you customize how you display and pick horizons on your seismic data.

EXERCISE 9: CHANGE THE HORIZON

You're going to pick a different horizon than the one you posted in the *Map* window, so you need to post a new horizon. This time, you'll post it from the *Seismic* window.

- 1. In the *Seismic* window, click to open the *Horizons Management* dialog box. This dialog box has a *Horizons* folder and a *Faults* folder.
- 2. Click

 to expand the **Horizons** folder, which lists the horizons in the project. Horizons with a check mark are displayed in the **Seismic** window.



- 3. Make sure all the horizons are selected.
- Now, let's look at the properties for a horizon. In the *Horizons Management* dialog box, right-click on the **B_46** horizon, and select **Properties** to open the *Edit Properties* dialog box.

Edit	Prop	erties																? X
) N.		Color		Туре	8	Event	当	+/-	1	VolPick	1	Slice(On)	6	Symbol	1	Seismic(On)	
	B_46			horz		Peak		Merge							•		7	
	orizon aults a	s are e re ena	nabled bled for	for Volu	ume Pic e Interp	king, O olating,	Merge, I) Repla	ce.									
_																		
											Clos	e						

The columns in this dialog box show the following information about the B_46 horizon:

Column	Description			
Туре	Shows this event is a horizon (horz) rather than a fault.			
Event	Shows the seismic data is picked on a peak (Peak).			
+/-	Shows the horizon is set to Merge (discussed later).			
VolPick	The check box is clear, so volume picking is not enabled.			
Slice (On)	The check box is clear, so this event will not be drawn on your horizon and time-slice			

- This information for this horizon looks okay, so click <Close> to close the *Edit Properties* dialog box.
- 6. Click **<Close>** to close the *Horizons Management* dialog box. Let's post the B_46 horizon.
- On the *Posting Status* toolbar of the *Seismic* window, click the arrow button in the *Horizon* list (which currently displays **test [1] Peak**), and select the horizon **B_46** from the list. Notice that B_46 is also a peak event.

8_46 [1] Peak 💌

- 8. Switch to the *Map* window and select the *Seismic* tab of the *Object Manager* bar.
- 9. Clear the check box for the **3D** folder. This turns off the 3D seismic in your *Map* view, making it easier to look at the horizon you're going to post.
- In the *Map* window, select the B_46 horizon from the *Posting Status* toolbar. You will see that the B_46 horizon has been partially interpreted on 2D lines **DIAG**, LN84X, and LN15I.



EXERCISE 10: PICKING HORIZONS ON SEISMIC DATA

It's time to pick some events on a seismic section.

- First, you need to activate the 3D seismic in your map. On the *Object Manager* bar of the *Map* window, select the check box for 3D seismic. *WinPICS* displays the BURIED and STRATTON seismic data in the *Map* view.
- 2. In the **Map** window, click $\overset{\sqrt{L_{2}}^{*}}{\overset{*}{\overset{*}}{\overset{*}}}$ for 3D seismic, and then click $\overset{\text{IL}}{\overset{*}{\overset{*}}}$ for inline.
- Move your cursor over the map. As you move the cursor, the inlines and crosslines display in the Status bar at the bottom-left corner of the Map window. When your cursor is over Inline 79, click on the map. Inline 79 displays in the Map window.
- 4. In the **Seismic** view, scroll down the seismic until you see the green dots at approximately 1230ms, which are the **B_46** picks on intersecting 2D lines.
- 5. From the *Horizon Picking* toolbar, click Additional select Lateral from the list.
- 6. Click on the **B_46** peak event at 1230ms (the green dot). **Lateral** mode automatically picks the event across the length of the inline.





Notice that WinPICS automatically updates B_46 in the **Map** window as you pick the horizon in the **Map** window.

 To make the horizons easier to see on the seismic, you can increase their thickness. From the Seismic menu, select Preferences | Data Window Preferences. The Seismic Preferences dialog box should open at the Seismic Misc. tab by default.

Seismic Preferences								
Seismic Scales Seismic Misc. Gains	Display Mode Seismic Annotations Display Attribute Display Options(On/Off)							
Horizon Picking Manual Picks Have Zero Amplitude Guard Against Lateral-Delete Combin Picking Time Gate Window Edt Horizon Thickness (ms): 0 (Enter zero for sample interval) Auto-adjust Thickness in Zoom Out Multiply Thickness By: 2000000 Allowable thickness limits for horizons on the seamic display. Min Thickness (Pixel): 1 Max Thickness (Pixel): 4	Fault Picking Imation Imation Imation Imation Imation Imation Imate: Fault Rear Gap When Deleting Fault Vertex Imate: Fault Guard Zone The guard zone is the area around the fault where horizon picks are cleared when a fault is marked, edited, or interpolated. Traces (0 - 1000): Imate: Traces (0 - 1000): Imate: Traces in Window Imate: Valume Picking to Traces in Window Imate: Lateral Pick Holes When Volume Picking							
✓ Automatically Update Seismic Preferences								
System Defaults Apply To Project & V	New Apply To View Close							

- 8. Type 6 in the Multiply Thickness By box.
- 9. Type 6 in the Max. Thickness (Pixel) box.

 Click <Apply to Project & View > to close the Seismic Preferences dialog box. The horizon lines in the Map window now appear thicker.

EXERCISE 11: DEFINING AND DELETING HORIZONS

WinPICS has two picking modes: **Merge** and **Replace**. If you define the horizon as **Merge**, new horizon picks do not overwrite old picks. Conversely, if you define the horizon as **Replace**, new picks replace the old picks. Typically, you pick your horizon for the first time in **Replace** mode, but you edit in **Merge** mode so that the existing picks cannot be overwritten.

- 1. In the **Seismic** window, click 🔳 to open the **Horizons Management** dialog box.
- 2. Expand the **Horizons** folder.
- 3. Right-click on the **B_46** horizon and select **Properties** from the menu. In the *Edit Properties* dialog box, you can see that horizon **B_46** is defined as **Merge**.
- 4. Double-click on the word **Merge** to change the status of **B_46** to **Replace**.
- 5. Close the *Edit Properties* dialog box and the *Horizons Management* dialog box.
- Now you will delete a segment of horizon picks on Inline 79. From the Picking Mode list on the Horizon Picking toolbar (the default is Sticky Manual), select Delete mode.



- 7. Click and drag the mouse across part of the interpreted horizon. A pink line shows the segment that you will delete.
- 8. Release the mouse button to delete the segment. The picking mode shows you have left **Delete** mode and returned to **Lateral** mode. Each time you enter **Delete** mode, you are able to delete picks across one contiguous trace interval.



Alternatively, you can delete picks without moving the mouse off the traces. Press and release both your right and left mouse buttons to switch to **Delete** mode. In **Delete** mode, left-click and drag your mouse across the traces where you want to delete the **B_46** horizon, then release the left mouse button. After each time you use delete, you'll return to your last picking mode.

9. Interpret the horizon again using Lateral mode, as described in the previous exercise.

EXERCISE 12: 3D VOLUME PICKING

You can use volume picking to quickly pick the horizon across several inlines. 3D Volume picking works by using previous inline or crossline horizon picks as a guideline to pick traces on adjacent lines. As you step through the 3D survey, in inline or cross line direction, *WinPICS* extrapolates the horizon times from the previously picked line and uses those times as seeds for making new picks. In this exercise, you will use the **B_46** horizon picks on **Inline 79** as your starting point.

Organize the Seismic window so that you can see the entirety of the Inline 79 seismic line. You may find the Zoom All feature useful here. Since you used Lateral picking mode in the previous exercise, the horizon should be picked across the entire inline.

onfirming	Volun	ne Pick	ing												2
ID N		Color		Туре	80	Event	幽	+/-	VolPick	- }	Slice(On)	1	Symbol	Seismic(On)	
test			horz		Peak		Merge						•	¥	
B_46			horz		Peak		Merge						0	~	
C_38			horz		Peak		Merge						•	>	
D_18			horz		Trough)	Merge						•	¥	
F_11			horz		Z++		Merge						•	¥	
Fault_1			fault		Peak		Merge				V		×	v	
Fault_2			fault		Peak		Merge				v		×	~	
0 Horizons are enabled for Volume Picking, 0 Merge, 0 Replace. D Faults are enabled for Volume Interpolating.															
_ Soft by	hcr.	Decr.			olume R I App	ename/ oly to All	Delete		OK		Cance	ł			

2. On the *Horizon Picking* toolbar, click to open the *Confirming Volume Picking* dialog box.

3. You want *WinPICS* to honor your existing picks, so in the row for **B_46**, double-click **Replace** to change it to **Merge** mode.

In the row for B_46, double-click the check box in the VolPick column. The lower part of the window will display the message 1 Horizons are enabled for Volume Picking, 1 Merge, 0 Replace.



You can volume pick more than one horizon at a time by selecting each horizon's **Volume Pick/Int** check box.

- 5. Click **<OK>**. Volume picking is now enabled.
- 6. In the **Seismic** window, click to step through the seismic traces. *WinPICS* will volume pick adjacent inlines or crosslines as you step along. As you pick each line, it becomes the new guideline and is, in turn, used by *WinPICS* to determine picks on the next line. The seismic in the *Map* window updates each time you step to the next line.



- 7. Continue clicking tuntil you have picked to one edge of the volume. *WinPICS* displays the *Edge Reached* warning.
- 8. Now click ••• to back through the traces until the horizon is picked across the entire volume. When you finish, the *Map* window should display the entire 3D project with color values.



9. Click <x> to close the *Seismic* window for STRATTON.YD0.

GRIDDING AND CONTOURING

You now know the basics of how to display seismic and post horizons on your seismic. *WinPICS* has many advanced features for working with your data, and we'll touch on a couple of them in the remaining exercises.

Gridding uses a grid geometry and a gridding method to generate z values. Contouring produces instant contours that you can use as a diagnostic tool to display the results of interactive smoothing.

EXERCISE 13: CHOOSE A HORIZON FOR GRIDDING

- In the *Map* window, click the *Posting Status* toolbar and select horizon C_38. *WinPICS* posts the horizon in the *Map* view.
- 2. In the *Map* menu, select **Grid** | [•] New **Grid** to open the *Create Grid From All Sources* dialog box. Now, we can select the **C_38** horizon for gridding.
- In the Select Horizon to Grid window, under the Select? column, double-click to select the check box for C_38. The gridding name is now listed in the Output Grid column, and the Gridding on Attribute is defaulted to Time.



4. In the Select Where to Grid window, you can select areas of your map to grid. By default, all the available 2D Seismic Areas, 2D Seismic Lines, and Wells are selected. For this exercise, leave the selections as they are and click <Next> to open the Gridding dialog box. You can now adjust the gridding area.

EXERCISE 14: RESIZE THE GRIDDING AREA AND GRID 2D DATA

You will now resize and rotate the gridding area so that your horizon picks, and a portion of the surrounding area, fall within the gridding area.

- 1. In the *Gridding* dialog box, place the cursor on the top left corner of the blue grid outline. A green circle will appear around the grid outline.
- 2. Click and hold the left mouse button while moving the mouse to rotate the grid. Release it when you have the grid coverage you want.



- 3. Click and drag on the red edges of the grid to stretch or squeeze the gridding area.
- 4. The right hand side of the gridding window contains gridding parameters. In the **Gridding Method** list, select **Minimum Curvature**.
- 5. In the Lines box under X Grid, type 100.
- 6. In the Lines box under X Grid, type 100.
- 7. Click **<EXECUTE>** to grid the map. The horizon with the new gridding parameters will display in the *Gridding* window.



- 8. Click **<Post Grid>**. The *Gridded Horizons* dialog box opens.
- 9. Select the checkbox for grid **C_38_T1**.
- 10. Click **<OK>**. *WinPICS* posts the gridded horizon to your map.

EXERCISE 15: GENERATE CONTOURS

You can add contours to your gridded horizons.

- 1. On the *Map* window's *Other Map Tools* toolbar, select click to open the *DGI Contouring* dialog box.
- 2. In the Volumes to Contour box, select C_38_T1.

Dgi Contouring		••••
Define Contour Line Base Line Value : 1185.00 * Line Interval : 5.00 *	Color Palette Name : 4_Color_Gradient_2	-3D Seismic Volumes to Contour B_46_aV1 B_46_DV/1 B_46_IV1
Contour Drawing Primary Line Frequency : 4 Width : 5 Style : Solid Color : Label	Secondary Line Width : 1 • Style : Solid • Color : •	B_46_T1 C_38_aV1 C_38_DW1 C_38_JV1 V_0_38_T1 D_18_T1 test_A1 UserGrid C_38_T2
Frequency : 4	Downhill ticks Color Fill Create Log File Smooth Contour Isopach/Isochron Method Use Faults	
Type : WinPICS layer Name : C_38_T2_time_in_ms Also export an ASCII fil	3D Perspective e with the x, y, and z of this contour.	
		OK Cancel

3. Click **<OK>**. *WinPICS* overlays the contours on your gridded horizon.



4. To remove the contours, go to the *Map Tools* toolbar, and click **<Remove Contours>** 3.

Congratulations, you've complete the WinPICS quick start! You have learned about the interface, the map display, and the seismic display. You've also learned how to post horizons, pick horizons, grid horizons,

and generate contours. For more information about using *WinPICS*, select **Help | WinPICS Help** from the main *WinPICS* toolbar to open the help file.

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