

NOMIS

SEISMOGRAPHS

Rock Solid Machines

Unshakeable Service

SuperGraphics II User Guide

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Main Screen

The SuperGraphics II program is designed to analyze data from a Nomis Mini SuperGraph or Mini SuperGraph II Unit. When you open the SuperGraphics II software, the main menu will display as shown here.

The screenshot shows the SuperGraphics II software interface. It features a file directory on the left, a central event list table, and a waveform display at the bottom. Callout boxes provide instructions for various elements:

- Home Button** – return to the main screen from anywhere.
- File Directory** – locate saved event files.
- File List** – show the list of event files in the selected file directory.
- Click the Nomis icon** to go to our website.
- Waveform Display** – show the waveform for the selected event file.

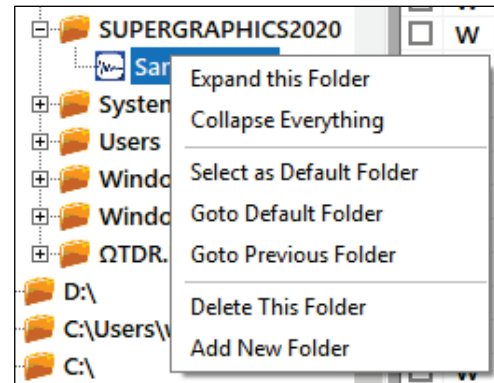
File	Event #	Date/Time	BarGraph End	PPV(m/s)	Ak (dB)	Vector Sum
BC_20421-10.N58	10	January 25, 2018 1:16 PM	January 26, 2018 12:00 AM	0.2014	77.9	0.2
P_20421-11.N58	11	January 26, 2018 12:00 AM	January 26, 2018 12:00 AM	0.4869	87.4	0.09
BC_20421-12.N58	12	January 26, 2018 12:00 AM	January 26, 2018 8:10 AM	0.1463	77.9	0.15
P_20421-13.N58	13	January 26, 2018 9:20 AM	January 26, 2018 9:20 AM	0.4859	87.4	0.09
BC_20421-14.N58	14	January 26, 2018 9:20 AM	January 27, 2018 12:00 AM	2.5978	76.9	2.62
WC_20421-15.N58	15	January 26, 2018 11:20 AM	January 26, 2018 11:20 AM	0.2777	75.4	0.27
WC_20421-16.N58	16	January 26, 2018 6:27 PM	January 26, 2018 6:27 PM	2.5978	71.8	2.62
P_20421-17.N58	17	January 27, 2018 12:00 AM	January 27, 2018 12:00 AM	0.4944	87.1	0.09
BC_20421-18.N58	18	January 27, 2018 12:00 AM	January 28, 2018 12:00 AM	0.1339	76.9	0.18
P_20421-19.N58	19	January 28, 2018 12:00 AM	January 28, 2018 12:00 AM	0.4928	87.1	0.09
BC_20421-20.N58	20	January 28, 2018 12:00 AM	January 29, 2018 12:00 AM	0.1378	76.9	0.14
P_20421-21.N58	21	January 29, 2018 12:00 AM	January 29, 2018 12:00 AM	0.4888	87.4	0.09
BC_20421-22.N58	22	January 29, 2018 12:00 AM	January 30, 2018 12:00 AM	0.1681	76.9	0.17
P_20421-23.N58	23	January 30, 2018 12:00 AM	January 30, 2018 12:00 AM	0.4791	87.4	0.09
BC_20421-24.N58	24	January 30, 2018 12:00 AM	January 31, 2018 12:00 AM	0.1627	76.9	0.17
P_20421-25.N58	25	January 31, 2018 12:00 AM	January 31, 2018 12:00 AM	0.4788	87.7	0.09
WC_20421-27.N58	27	January 31, 2018 11:26 AM	February 1, 2018 12:00 AM	0.267	73.4	0.3
BC_20421-29.N58	29	February 1, 2018 12:00 AM	February 2, 2018 12:00 AM	0.3686	76.9	0.41
WC_20421-30.N58	30	February 1, 2018 11:48 AM	February 1, 2018 11:48 AM	0.2608	71.8	0.29

File Directory

Use the File Directory on the left side of the screen to navigate and locate event files you want to analyze. You can expand and close the folders, as well as add or remove folders.

To add or remove folders, right-click on a folder and choose Add New Folder or Delete this Folder. It can be helpful to separate your data into different folders to indicate the project to which the event files apply.

The right-click menu also allows you to designate a Default Folder that will display each time you open the SuperGraphics II program. Simply right-click on that folder and choose Select as Default Folder.



File List

The File List displayed on the main screen includes the following information about each event. Click on a file name to highlight it and display the Waveform at the bottom of the screen.











X	T	File	Event #	Date/Time	BarGraph End	PPV(in/s)	Air (dBL)	Vector Sum
<input type="checkbox"/>	B	9.NSZ	9	March 27, 2008 12:25 PM	March 28, 2008 12:00 AM	1.165	108.8	1.51
<input type="checkbox"/>	P	8.NSZ	8	March 27, 2008 12:25 PM		0.5	134.0	0.00
<input type="checkbox"/>	P	7.NSZ	7	March 27, 2008 12:21 PM		0.5	134.0	0.00
<input type="checkbox"/>	P	6.NSZ	6	March 27, 2008 12:20 PM		0.5	134.0	0.00
<input type="checkbox"/>	W	5.NSZ	5	March 27, 2008 12:20 PM		1.36	91.5	1.39
<input type="checkbox"/>	W	4.NSZ	4	March 27, 2008 12:20 PM		0.21	120.2	0.23
<input type="checkbox"/>	W	3.NSZ	3	March 27, 2008 12:20 PM		0.735	120.8	0.78
<input type="checkbox"/>	W	2.NSZ	2	March 27, 2008 12:19 PM		0.375	111.8	0.39
<input type="checkbox"/>	B	11.NSZ	11	March 28, 2008 12:00 AM	March 28, 2008 10:54 AM	0.015	107.5	0.02
<input type="checkbox"/>	P	10.NSZ	10	March 28, 2008 12:00 AM		0.5	134.0	0.00
<input type="checkbox"/>	W	1.NSZ	1	March 27, 2008 12:19 PM		1.215	91.5	1.25









Heading	Description
X	Use this column to select events with which you want to perform further functions. Click the "X" at the top to select all events. Click the checkboxes beside individual events to select them. Click an event and hold down the Shift key to select groups of events. You can repeat this multiple times in the same list.
T	This column indicates the Event Type as one of the following: <ul style="list-style-type: none"> • W – Waveform • B – BarGraph • P – Calibration Pulse • C – Combination Event When an event file is large, an "L" will appear in this column temporarily while the data is being loaded onto the screen. After the data is loaded, the letter that indicates the event type will redisplay.
File	This column displays the file names for the individual events. If a duplicate event number is downloaded from the same seismograph, it will appear with a number in parenthesis after the serial and event number (e.g., 20464-5.NSZ, 20464-5(1).NSZ).
Event #	This column displays the event number that was assigned by the SuperGraph. If there is a red INC in this column, this indicates that this record is incomplete and/or corrupted. If there is a red CURRENT or RECORD in this column, it indicates that this is a BarGraph event that was still in session during the download.

Heading	Description
Date/Time	This column indicates the date and time when the Event was originally recorded by the SuperGraph..
BarGraph End	This column indicates the end date and time for a BarGraph Event. This Column will only display information for BarGraph Events.
PPV	This column displays the PPV (Peak Particle Velocity) for each event. This information will be in either in/sec or mm/sec depending on the Units selected in the SuperGraphics Configuration. The unit of measurement will be displayed next to the PPV in the column header.
Air (DBL)	This column displays the Airblast level for each event. This information is displayed in decibels.
Vector Sum	This column displays the vector sum (V. SUM) reading for the event.

Toolbar Functions

The following icons appear on the toolbar and allow you to perform common functions with the data gathered from your seismograph. The following pages will provide more detail about these functions.

Icon	Name	Description	More Information
	Home	Click this button from anywhere in the system to return to the main screen.	
		Use these font fields to select the font size of the File Directory on the left of the screen, or the File List on the top right of the screen. Click the Checkmark icon to save these Font settings.	
	Analyze Waveform	Click this button to go to the Waveform Analysis screen.	Waveform Analysis
	Frequency Plot	Frequency Plot displays the particle velocity vs. frequency plot for the highlighted event.	Frequency Plot
	FFT – Fourier Analysis	Click this button to view the Fast Fourier Transform (FFT) for the event.	
	Filtering	Click this button to filter the selected event(s).	Filtering
	Event Details	Click this button to view the details about the selected event.	
	Print Preview	This option will display a preview pane to show how the current event will appear if it is printed using the current print settings	
	Create PDF File	Generate a PDF file with the information in the current view.	
	Print	Print the current view.	Printing Information in SuperGraphics II

Icon	Name	Description	More Information
	Contact Graph	Connect to a SuperGraph II machine.	Contact Graph
	Export to Excel	Export the currently displayed information to a .csv (comma separated values) file in Microsoft Excel.	Export to a CSV File
	Display Summary List	This option displays a summary of the selected events. You can select any number of events on the main screen and click this button to view the summary of each one. You can then print or export the information.	
	Displacement	Click this button to display a displacement waveform for the selected event.	
	Acceleration	Click this button to display an acceleration waveform for the selected event.	
	SuperGraphics II Configuration	Click this button to modify the configuration settings.	Configuration Settings
	Contact Support	Click this button to send the current event details to Nomis customer support for assistance.	Customer Support
	About SuperGraphics II	Click this button to display the version and release date for the SuperGraphics II software you are currently using. You can also find a link to open this SuperGraphics II User Guide.	

Waveform Analysis

The Waveform Analysis screen displays the waveform and associated details for an event.

The screenshot shows the Waveform Analysis software interface. At the top, a window title bar reads "C:\Sample Data\20421-30.NS8 - [20421-30.NS8]". Below this is a toolbar with icons for Font Sizes (set to 10), a dropdown menu (set to 9), and various analysis tools including FFT, CSV, and a graph icon. The main display area is divided into several sections. A top status bar displays event details: "R: 0.1228in/s @ 51.2 Hz", "T: 0.1561in/s @ 85.3 Hz", "V: 0.2608in/s @ 75.1 Hz", and "A: 71.8 dBL (0.000011psi @ 2560 Hz)". Below this, a "Sample Rate: 1024/sec" and "Seismic Trigger: 0.25in/s" are shown. A "Use Headers" checkbox is visible on the right. The central part of the interface features a "Zoom Control" panel with a waveform icon and a "Scale Control" panel with a waveform icon and the text "0.32 / 76.8". To the right of these panels are checkboxes for "Radial", "Transverse", "Vertical", and "Air", each with a corresponding icon. Below these are text fields for "Nomis Seismographs", "3728 4th Avenue South", "Administrative Staff", and "Sunny". A "0ft" and "0lb" field is also present. The bottom section of the interface displays a waveform plot with a vertical scale of "R: 0.32in/s/div".

The information here shows the event number and SuperGraph serial number.

This area displays summary data for the current event.

Click this button to add the currently displayed header to the headers database.

Use Zoom Control to display and adjust the time scale of the waveform.

Use Scale Control to adjust the vertical scale of the velocity channels.

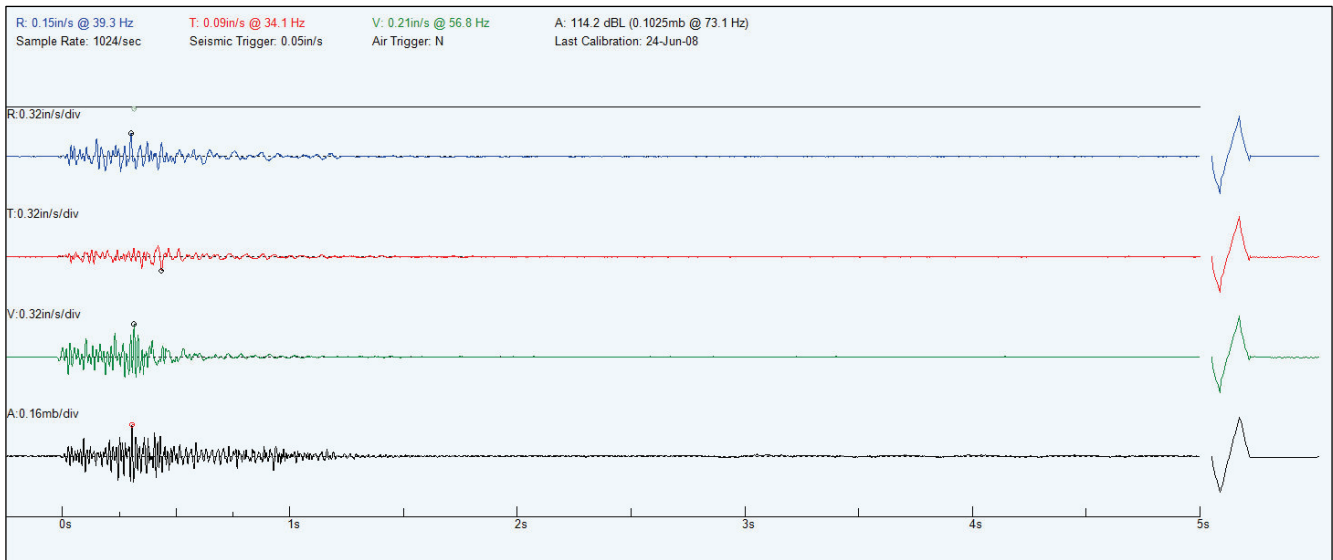
Use these checkboxes to change the channels displayed.

Check Use Headers to print a header on reports that you have set up in the Configuration window, which lists the Company, Location, Operator, Notes, distance to blast, and max charge.

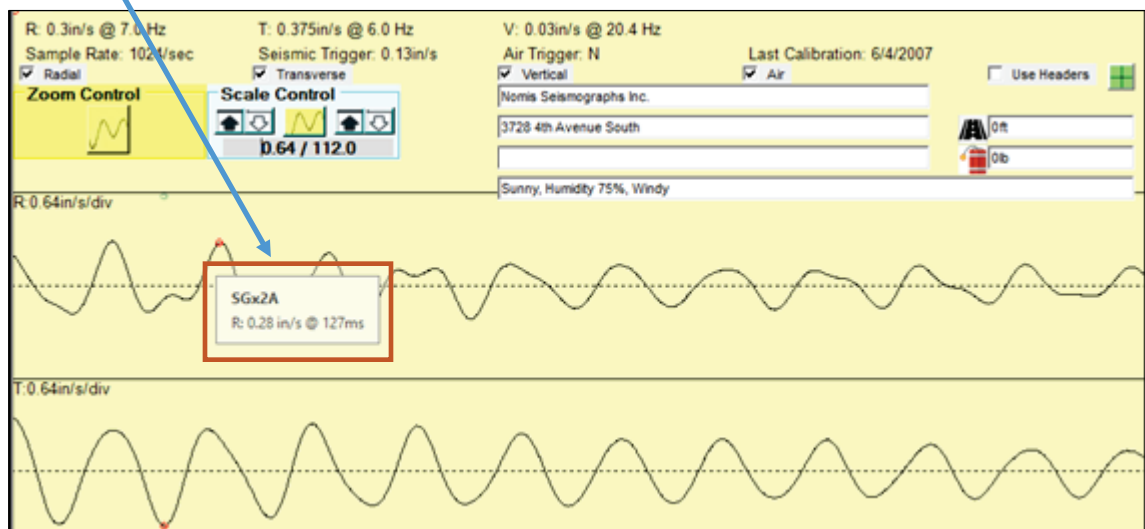
Waveform Display

The Waveform Display shows the vibration and airblast waveforms for the selected event. The horizontal scale on the waveforms is in seconds and the vertical scale for each waveform is listed in the left margin of the waveform. Additionally, the calibration pulse from the event is displayed on the right side of the Waveform Display. The initial display will show the waveform for the full duration of the event recording.

The small red circles on each waveform indicate the location of the peak reading. The small green half circles on the divider below each waveform indicate the time of the peak vector sum.

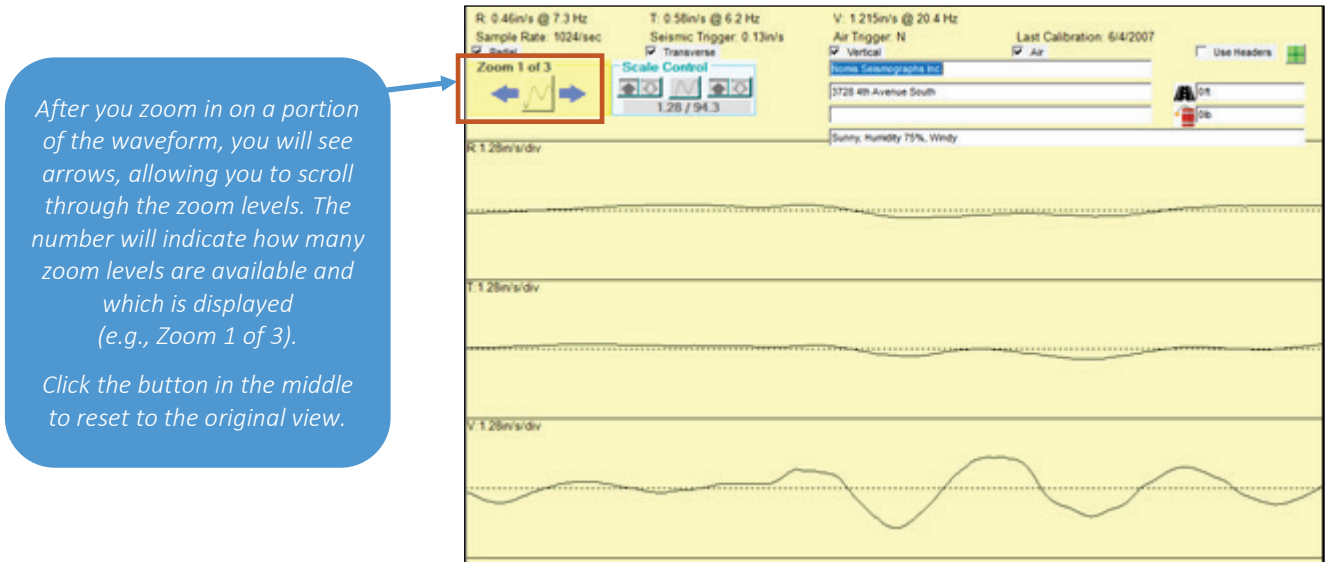
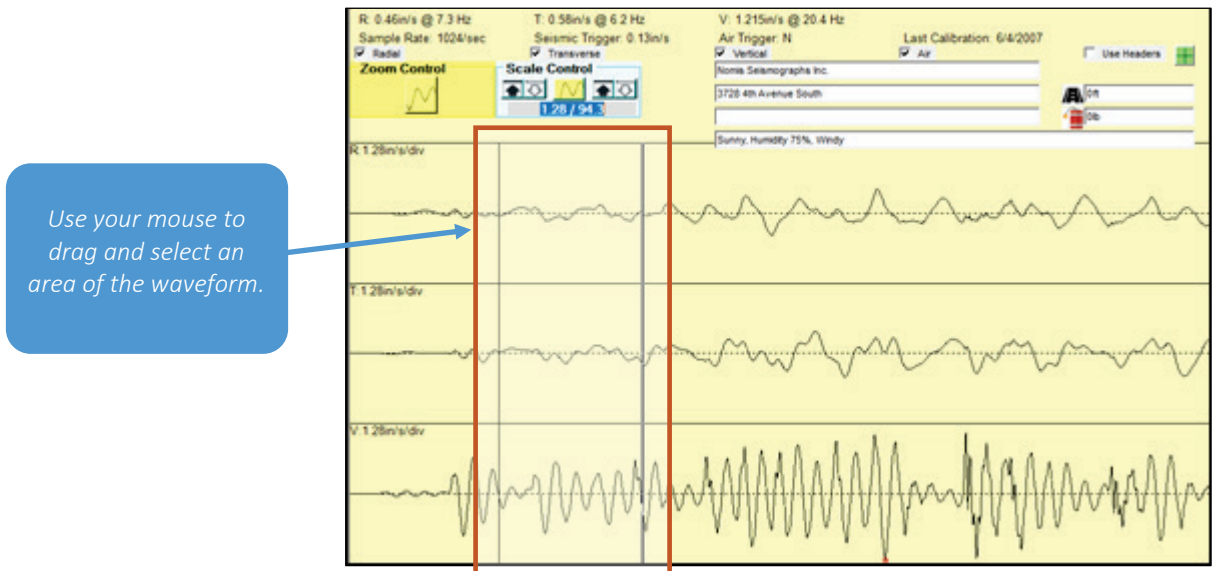


Use the mouse pointer to show the PPV/Hz values anywhere on the waveform display.

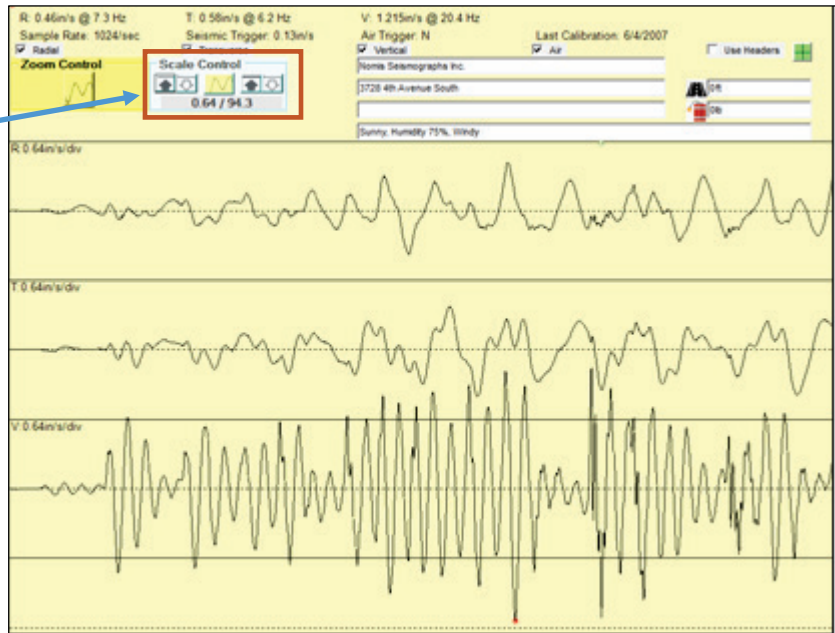


Zoom Control

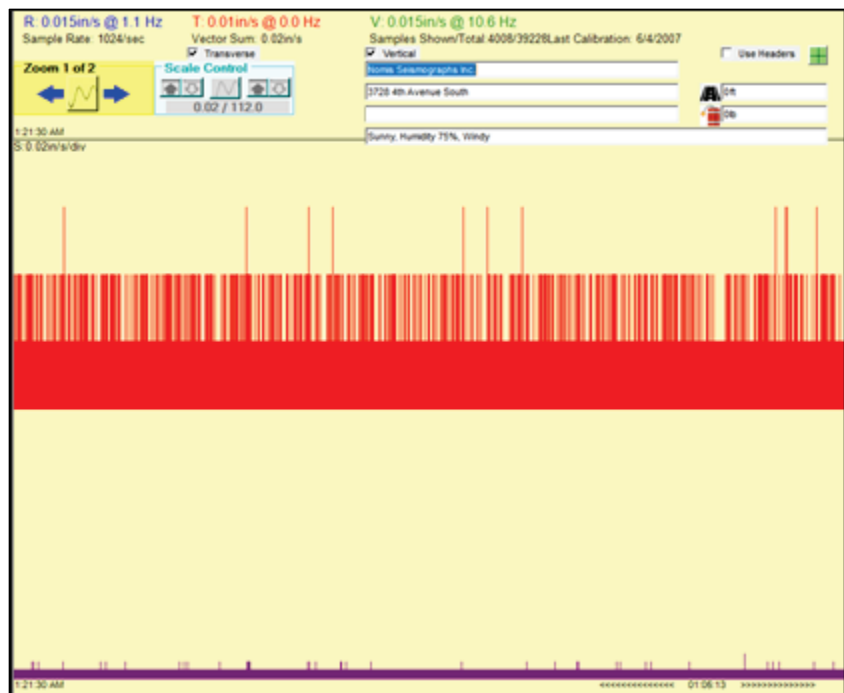
Zoom Control allows you to adjust the time scale of the current waveform. You can click the Print icon on the toolbar to print the Zoom view of the waveform.



The Scale Control area of the screen allows you to adjust the vertical scale of the velocity channels. The Up buttons will double the scale of the velocity waveforms, while the Down buttons will halve the scale of the velocity waveforms.



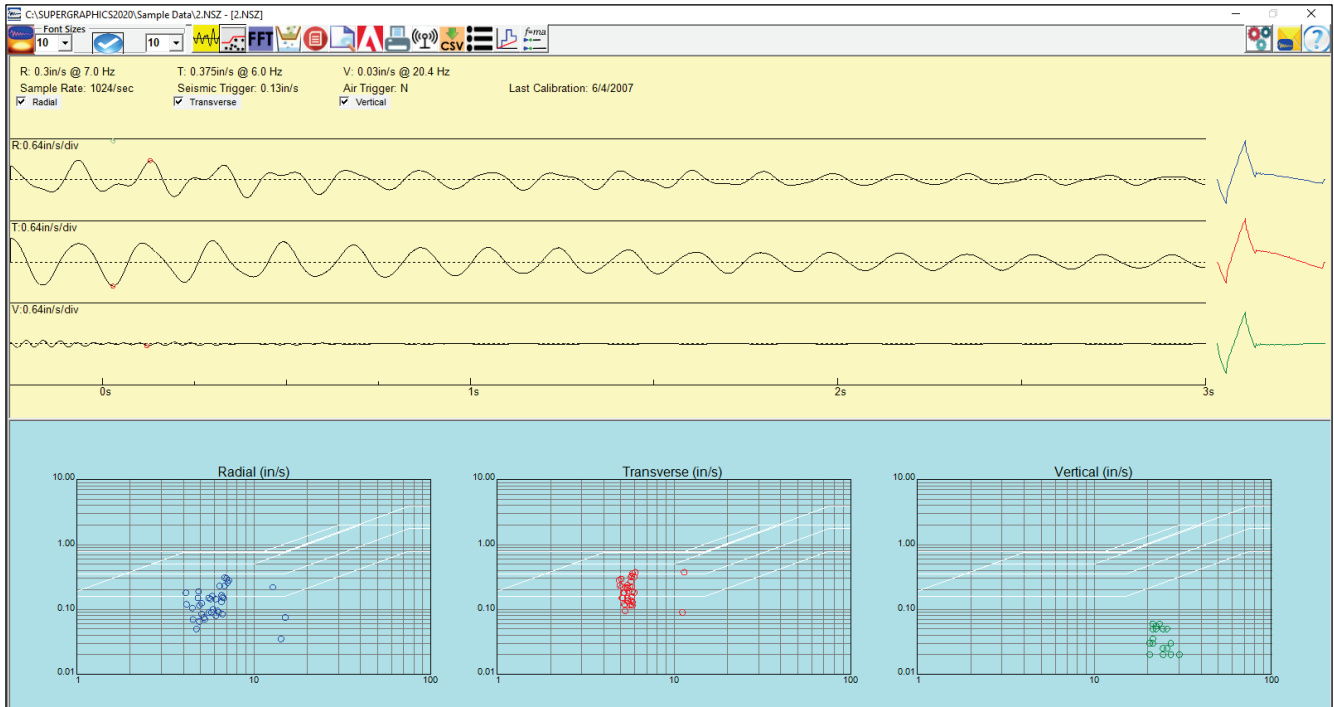
You can scale and zoom on bar graphs also. This picture shows a bar graph zoom view.



Frequency Plot

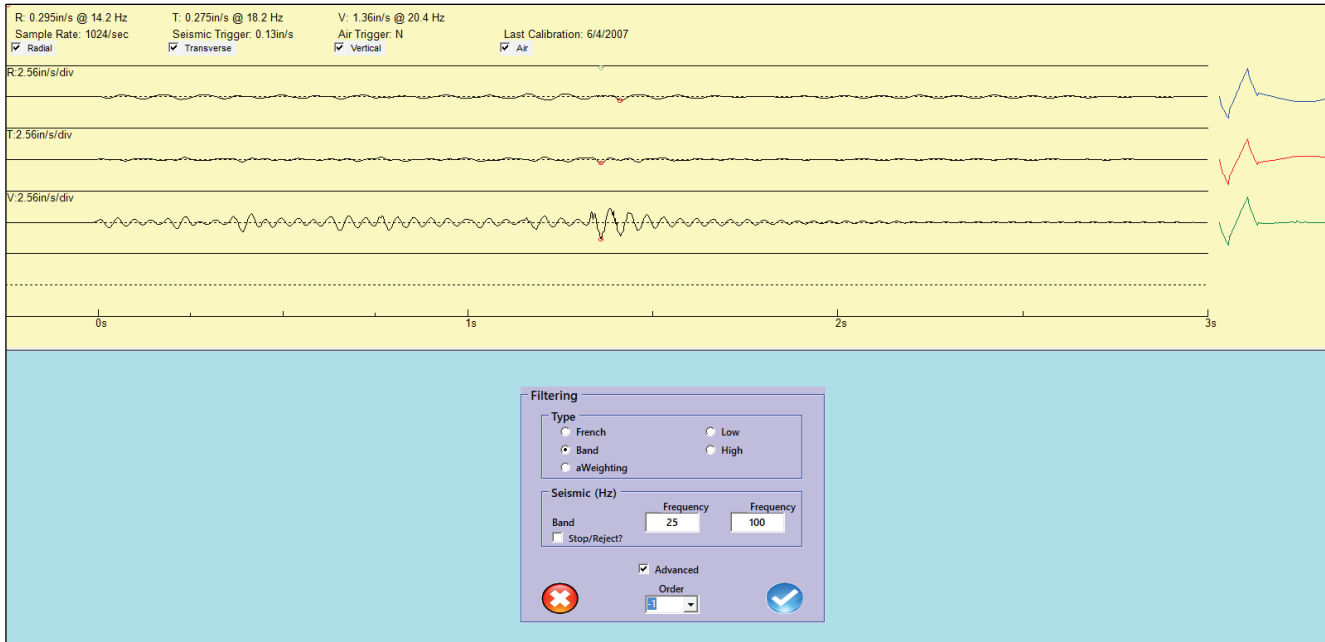
The Frequency Plot screen displays the particle velocity vs. frequency plot for the highlighted event.

The type of frequency plot displayed is determined by the [Frequency Plot settings on the SuperGraphics II Configuration screen](#). You can enter new standards as well as add/remove individual lines.



Filtering

The Filtering screen provides advanced functionality that allows you to filter out noise frequencies so that you can see the relevant data more clearly.



1. Choose a Filtering Type. The Seismic section of the filtering options will change based on the Filtering Type you select.
2. Change the Seismic settings as needed.
3. Check the Advanced checkbox if you want to use a multiplier with the filter.
4. Click the Check button at the bottom right to apply the filtering settings on the waveform display at the top. Click the X button at the bottom left to remove the filtering settings and return to the Waveform screen.

Printing Information in SuperGraphics II

These icons on the toolbar allow you to print data or save it to a PDF file.



Click this button from any screen to display a Print Preview of the report that will be generated if you Print or save the information to a PDF file. You can select one or multiple events to Print Preview.



Click this button from any screen to save the selected event data to a Portable Document Format (PDF) file. You can select one or multiple events to save to PDF.



Click this button from any screen to print the selected event data. You can select one or multiple events to Print.

The Printing settings on the Configuration screen allow you to set these print options.

Choose whether or not to display filenames on reports.

- If you display filenames, choose whether or not to include the full directory path.
- Choose Landscape or Portrait as the print format.
- Check the Color box to print the information in color.


Printing

Display filename on report? (+telephone?)

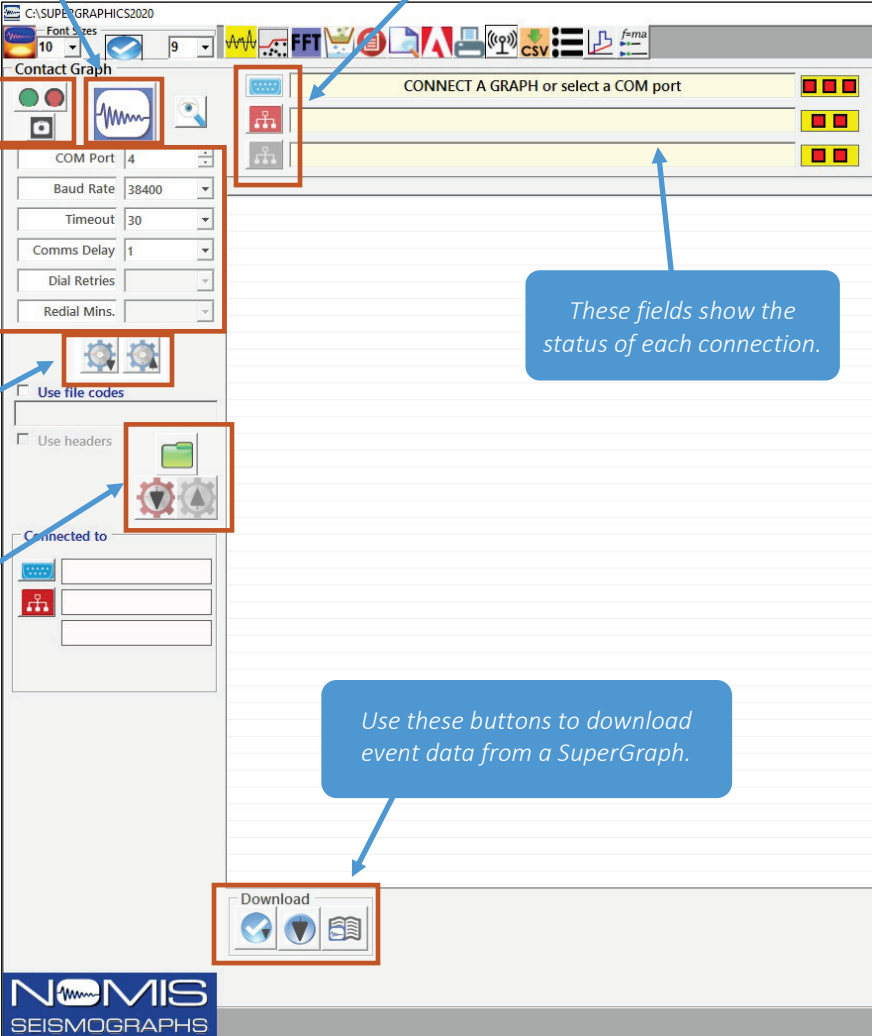
Include filename with full path?

Landscape Portrait Color?

Contact Graph

To contact the seismograph and download data, click the Contact Graph icon  on the toolbar.

This illustration highlights the main parts of the Contact Graph screen. Detailed step-by-step instructions are included on the following pages.




The screenshot shows the 'Contact Graph' window with several callout boxes:

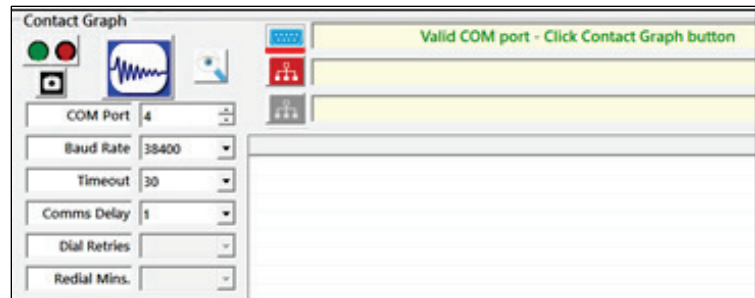
- Top Left:** A callout box points to a button with a green light and a red stop sign, stating: "After you have selected a connection type, click this button to contact the seismograph."
- Top Right:** A callout box points to three buttons with different connection icons, stating: "These buttons indicate the type of connection – local or remote. In a future release, the third button will allow a second connection to a remote seismograph. Currently, you can connect to one local and one remote simultaneously."
- Middle Left:** A callout box points to a button with a waveform icon, stating: "Start, stop, or take a snapshot of Bar Live monitoring when connected to a seismograph."
- Middle Left (Lower):** A callout box points to a settings panel with fields for COM Port, Baud Rate, Timeout, Comms Delay, Dial Retries, and Redial Mins., stating: "Enter settings for the seismograph to which you are connecting."
- Middle Right:** A callout box points to a table with status indicators, stating: "These fields show the status of each connection."
- Bottom Left:** A callout box points to two gear icons, stating: "Use these buttons to recall previously saved settings or save the current settings."
- Bottom Left (Lower):** A callout box points to a folder icon and a download icon, stating: "Use these buttons to select the download location, and download or update configuration settings from the SuperGraph."
- Bottom Right:** A callout box points to a 'Download' button with a download icon, stating: "Use these buttons to download event data from a SuperGraph."

Connect Locally to a SuperGraph

Use these steps to connect locally to a SuperGraph machine. The default connection type is serial connection.

1. Click the Contact Graph icon  on the toolbar to display the Contact Graph screen.
2. Locate the serial modem cable (RS232) supplied with the SuperGraph and connect one end of the cable to the SuperGraph serial port labeled “RS232” and connect the other end of the cable to a serial port on your computer.
NOTE: If your computer does not have a serial port but does have a USB port, you will need a USB to Serial port adapter.
3. Power on the SuperGraph machine.
4. On the SuperGraph machine, press the Help/Menu button, choose option 1, Config & Options, and press Enter.
5. Scroll down to Baud Rate and press Enter.
6. Make sure the Baud Rate in the SuperGraphics II program matches what is on the machine.
7. Press Esc three times on the machine to return to the main menu.

8. Select the COM Port to communicate with the SuperGraph. Use the arrows to scroll through the port numbers until you see the message “Valid COM port – Ready” display in green text in the serial connection field, as shown here.




9. Click the Contact Graph button at the top left.






If you experience communications problems, you can try adjusting the Timeout and Delay settings. For most local connections, a Timeout of 20 and a Delay of 1 work best.

10. If the connection is successful, you will see the message, “Unlocking Graph...” while the connection is in progress, and then “Items Loaded” along with the number of events loaded. The Contact Graph button will turn red and the square progress buttons to the right of the serial connection field will turn green when a connection is active, as shown here.



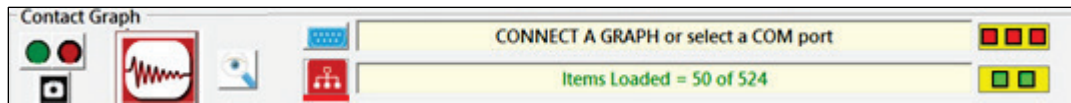
11. To save the settings for this serial connection, click the Save Settings button .
12. Click the red Contact Graph button again to disconnect from the SuperGraph machine.


Connect Remotely to a SuperGraph

1. Click the Contact Graph icon  on the toolbar to display the Contact Graph screen.
2. Click the Remote Connection button  and a list of contacts that you have saved in the Address Book of the Configuration window will display. You can right click on any of these contacts to Contact, Edit, Add, or Delete the address.
 - a. Contact – Contact the selected address. If you use this method, skip step 3.
 - b. Edit – Edit the information in the field where you right clicked.
 - c. Add – Add a new contact address.
 - d. Delete – Delete the selected address from the address book.
3. Select the correct remote seismograph to which you want to connect and click the  Contact Graph button at the top left.

If you experience communications problems, you can try adjusting the Timeout and Delay settings. For most remote connections, a Timeout of 20 and a Delay of 10 work best.

4. If the connection is successful, you will see the message, “Unlocking Graph...” while the connection is in progress, and then “Items Loaded” along with the number of events loaded. The Contact Graph button will turn red and the square progress buttons to the right of the remote connection field will turn green when a connection is active.



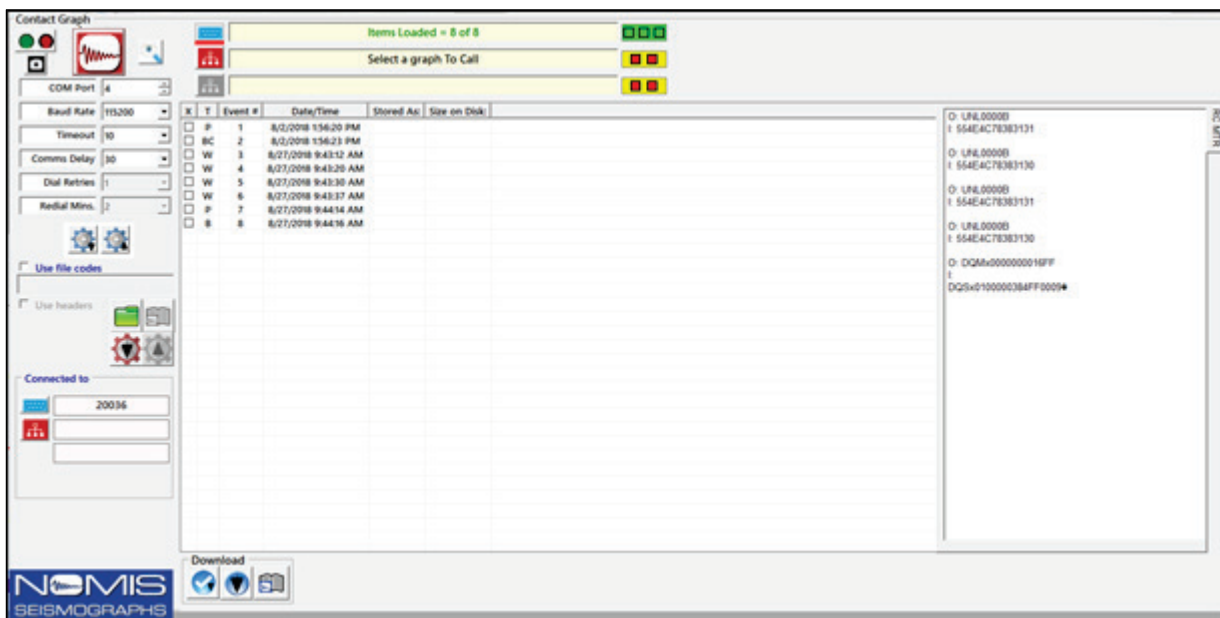
5. To save the settings for this internet/dial-up connection, click the Save Settings button .
6. Click the red Contact Graph button again to disconnect from the SuperGraph machine. The button will turn blue, indicated that the machine is disconnected.


Download Data from a Seismograph

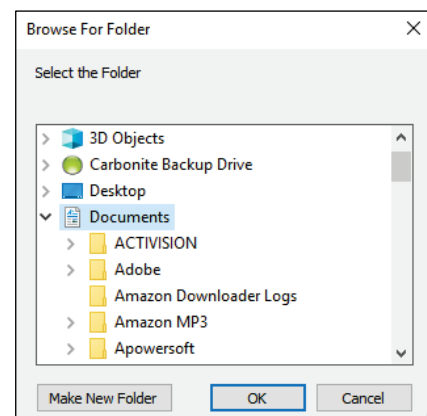
Once you have successfully connected to one or more seismographs, use the steps below to download data.

NOTE: If connected to a local seismograph and a remote seismograph simultaneously, click the local button or remote button to swap between the data on the different machines.



1. Once the connection is made, the records from the SuperGraph machine will display on the screen as shown here.
2. If more than 50 records are stored, only the first 50 will display. To display more records, move your mouse to the bottom of the screen under the list, and more records will show in the list as long as you hold the mouse there.
3. Click the monitor button at the top left to monitor the connection between the SuperGraphics II program and the SuperGraph machine. The connection monitor will display to the right of the event listing, as shown below.



4. Click the Select Download folder button  to choose the location where downloaded event data will be stored. This will also change the default folder that displays event data on the main screen.
5. Choose an existing folder or click Make New Folder to create a new destination for downloaded event data. Consider storing events in folders named with the project name or seismograph location to help you easily locate them later.
6. You can also check the Use file codes box to add a specific string of characters to the filenames after they are downloaded in order to further differentiate them.



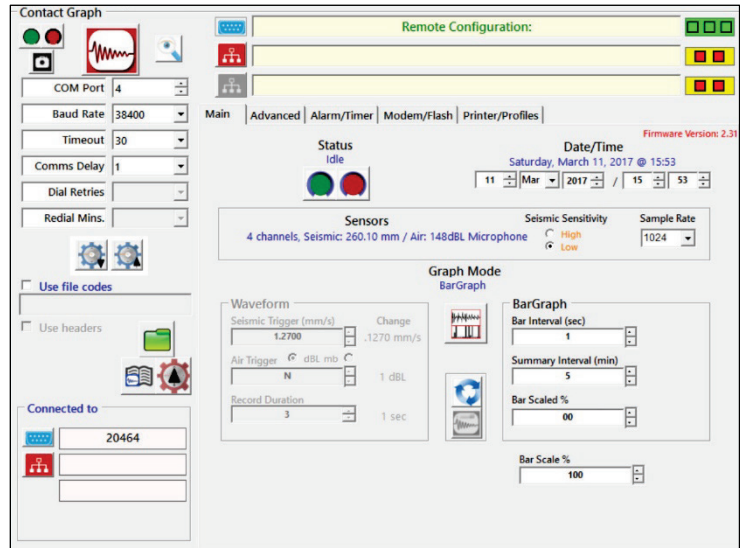
NOTE: In File Explorer, Nomis data files will show a Nomis icon. You can double-click a Nomis file to open the SuperGraphics II program and display the data from that file.

Name	Date modified	Type	Size
 20036-8	9/17/2018 8:54 AM	SuperGraphics Event File	4 KB
 20036-7	9/17/2018 8:54 AM	SuperGraphics Event File	2 KB

- To change the configuration of the seismograph to which you are connected, click the Remote Configuration icon.



- The configuration will download from the SuperGraph machine, which may take a few moments. Once the configuration has downloaded, it will display on the screen and the Remote Configuration icon will change to point up, indicating that you can then upload any changed configuration settings back to the machine.



- Click the configuration button to redisplay the event listing.

- Select one or more events and use one of the Download buttons to download the information to the folder selected in the previous step. The first button will download the selected events, the second button will download all events in the list, and the last button will download the selected events and display the Monitor log on the screen.



- Click the red Contact Graph button again to disconnect from the SuperGraph machine. The button will turn blue, indicated that the machine is disconnected.

Export to a Comma-Separated Values (CSV) File

This option allows you to export the raw data from event files into a .csv format, which can be used in other programs, such as Microsoft Excel.

Click the CSV icon from any screen to export the currently displayed data.

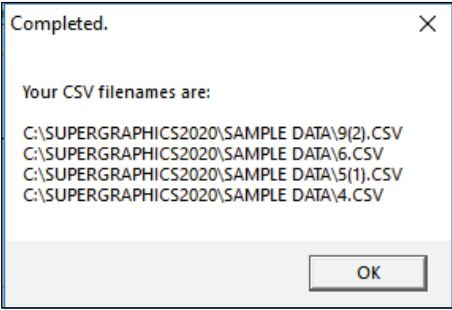
X	T	> File	Event #	Date/Time	BarGraph End	PPV(in/s)	Air (dBL)	Vector Sum
<input type="checkbox"/>	W	1.NSZ	1	March 27, 2008 12:19 PM		1.215	91.5	1.25
<input type="checkbox"/>	P	10.NSZ	10	March 28, 2008 12:00 AM		0.5	134.0	0.00
<input type="checkbox"/>	B	11.NSZ	11	March 28, 2008 12:00 AM	March 28, 2008 10:54 AM	0.015	107.5	0.02
<input type="checkbox"/>	W	2.NSZ	2	March 27, 2008 12:19 PM		0.375	111.8	0.39
<input type="checkbox"/>	P	20036-1(1).NS8	1	August 2, 2018 1:56 PM		0.5006	134.1	0.00
<input type="checkbox"/>	P	20036-1.NS8	1	August 2, 2018 1:56 PM		0.5006	134.1	0.00
<input checked="" type="checkbox"/>	BC	20036-2.NS8	2	August 2, 2018 1:56 PM	August 2, 2018 3:20 PM	0.0097	96.6	0.01
<input checked="" type="checkbox"/>	W	20036-3(1).NS8	3	August 27, 2018 9:43 AM		0.0019	127.2	0.0
<input checked="" type="checkbox"/>	W	20036-3.NS8	3	August 27, 2018 9:43 AM		0.0019	127.2	0.0
<input type="checkbox"/>	W	20036-4.NS8	4	August 27, 2018 9:43 AM		0.0022	137.7	0.0
<input type="checkbox"/>	W	20036-5.NS8	5	August 27, 2018 9:43 AM		0.0825	93.6	0.08
<input type="checkbox"/>	W	20036-6(1).NS8	6	August 27, 2018 9:43 AM		0.1178	97.0	0.12
<input type="checkbox"/>	W	20036-6(2).NS8	6	August 27, 2018 9:43 AM		0.1178	97.0	0.12
<input type="checkbox"/>	W	20036-6.NS8	6	August 27, 2018 9:43 AM		0.1178	97.0	0.12

You will be prompted to download the data. Click Yes to continue or No to cancel.

If you have selected event files on the main screen, you will then be prompted to export summary or detail information. Click Yes for Summary or click No for Details.

If you choose to export Summary information, you will find a Summary file in the c:\Supergraphics\Sample Data\SPGSummary.csv that includes summary information for the events you have selected.

If you choose to export Detailed information, you will see a list like this that shows where the files have been saved on your computer. Each file contains the details for each event you have selected.



1	Nomis Seismographs Inc.					
2	3728 4th Avenue South					
3						
4						
5	Graph: 10259					
6	BarGraph Job # 9					
7	Start: 3/27/2008 12:25:38 PM					
8	End: 3/28/2008 12:00:03 AM					
9	Bar Interval (sec): 1					
10	Count: 41666					
11	Air: 108.8 @ 13.7 Hz					
12	Radial: 0.97 (in/s) @ 0.4 Hz @ 1:57:53 PM					
13	Transverse: 1.165 (in/s) @ 0.1 Hz @ 1:57:53 PM					
14	Vertical: 0.295 (in/s) @ 4.0 Hz @ 1:57:53 PM					
15	Vector Sum: 1.51 (in/s)					
16	Sample Rate: 1024/sec					
17	Record Duration: 11.57 hr					
18	Battery Level: 6.31					
19						
20						
21	Bar	Bar	Air	Air	Seismic	Vector Sum
22	interval	Time	dB	mb	Peak (in/s)	(in/s)
23						
24	1	12:25:38	88	0.005	0.01	0.015
25	2	12:25:39	82	0.0025	0.01	0.01225
26	3	12:25:40	82	0.0025	0.01	0.01414
27	4	12:25:41	88	0.005	0.01	0.01
28	5	12:25:42	88	0.005	0.01	0.01
29	6	12:25:43	88	0.005	0.01	0.01
30	7	12:25:44	88	0.005	0.01	0.01

SuperGraphics II Configuration Settings

Click the Settings icon in the upper right of the main screen to display the Configuration window.

The screenshot shows the 'SuperGraphics Configuration' window. At the top right, there is a close button (X) highlighted with a red box and a callout: 'Click X to leave the Configuration window without making any changes.' At the bottom, the 'Ok', 'Cancel', and 'Apply' buttons are highlighted with a red box and a callout: 'Click Apply to save any changes you have made and stay in this window. Click OK to save the settings and return to the program. Click Cancel to cancel any changes made and restore the settings. You will be prompted to confirm if you click Cancel.'

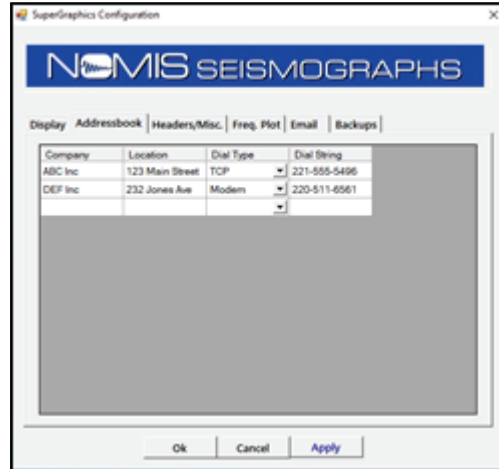
The following options are available from this screen.

Configuration Option	Description
Units	<p>Choose the units of measurement to be used in the data gathered:</p> <ul style="list-style-type: none"> Imperial – velocity is measured in inches per second, sound is measured in dBL (linear) and psi (pounds per square in), distance is measured in feet (ft), and weight is measured in pounds (lbs) Metric – velocity is measured in millimeters per second (mm/s), sound is measured in dBL (linear) and KPa (kilo Pascals), distance is measured in meters (m), and weight is measured in kilograms (kg)
Waveform	<p>Check the Air box to show Air data on waveforms. If this is unchecked, waveform events will not show the air channel or the air data.</p>
BarGraph	<p>Check the Use VS Data box to include only Vector Sum data in BarGraph records. If unchecked, PPV data will be included along with VS data, which is the default setting.</p> <p>Check the Air box to show Air data for bar graphs.</p>
Printing	<p>Use this section to set printer options.</p> <ul style="list-style-type: none"> Choose whether or not to display filenames on reports. If you display filenames, choose whether or not to include the full directory path. Choose Landscape or Portrait as the print format. Check the Color box to print the information in color.

Configuration Option	Description
Reporting	<p>Use this section to set reporting options.</p> <ul style="list-style-type: none"> • Show VS stats • Display SuperGraph Date/Time on the Summary Event screen • Show displacement/acceleration on landscape reports • Include calibration date on report • aWeighting filters • Display millibars for air
Company Name and Telephone	The company name and phone number listed here will be used for the heading on reports when they are printed. This is normally the company performing the vibration monitoring.
Language	Use this section to choose the language for the software and for printouts. Current options are English, German, Italiano and Francais. The program will automatically use the region settings on your computer, but you can use this field to override that.

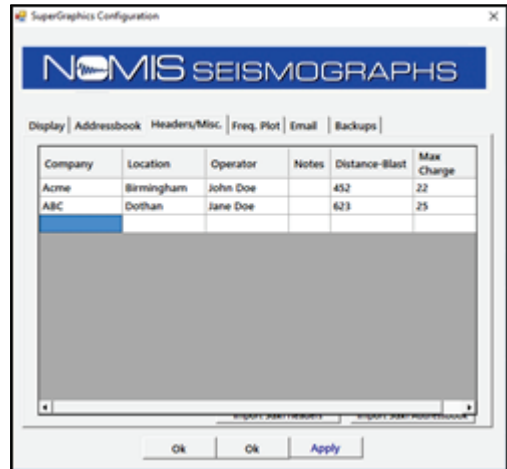
Address Book

Use this tab to store address information for seismographs you contact on a regular basis. You can enter the Company, Location, Dial Type of TCP or Modem, and the Dial String.



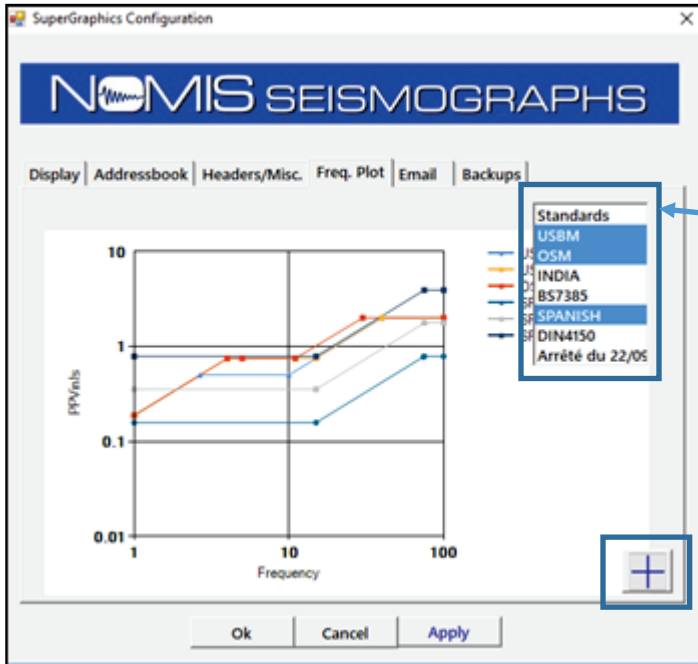
Headers/Miscellaneous

Use this tab to enter the information you want to include in Report headers.



Frequency Plot Settings

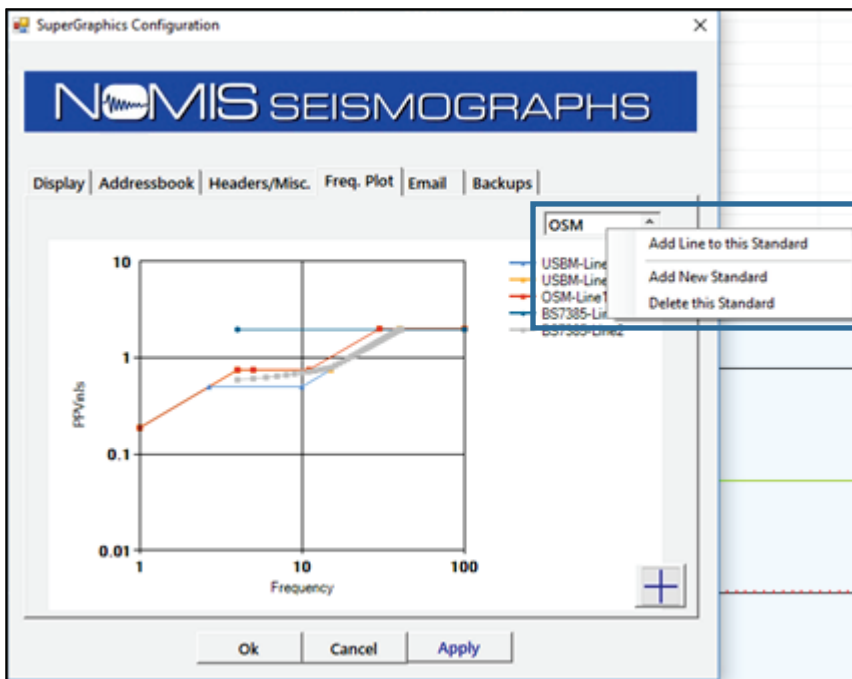
Use this tab to select the type of Frequency Plot you would like to display and print on the Frequency Plot screen.



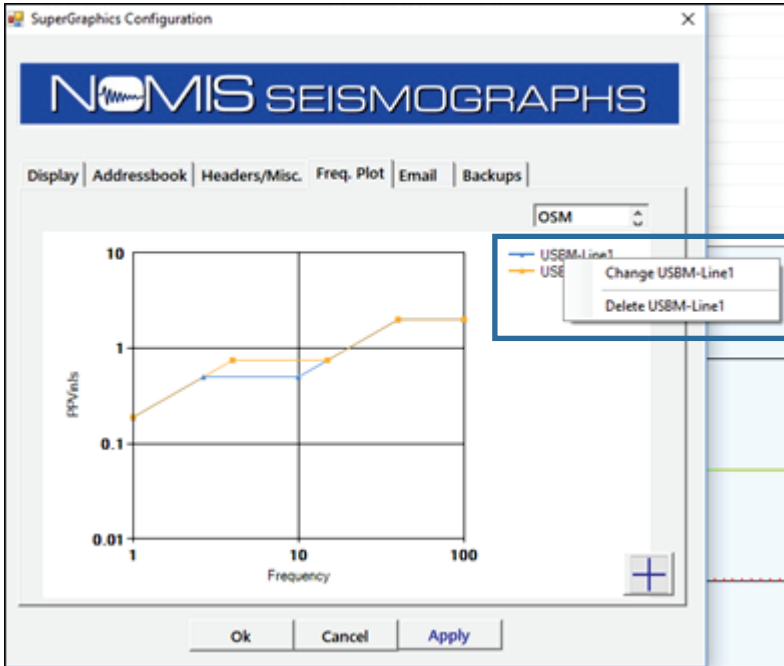
Click Standards to display the frequency plot standards. Selections will be highlighted in blue and those plots will show on the left.

To deselect a plot standard, click it again and it will no longer be highlighted in blue.

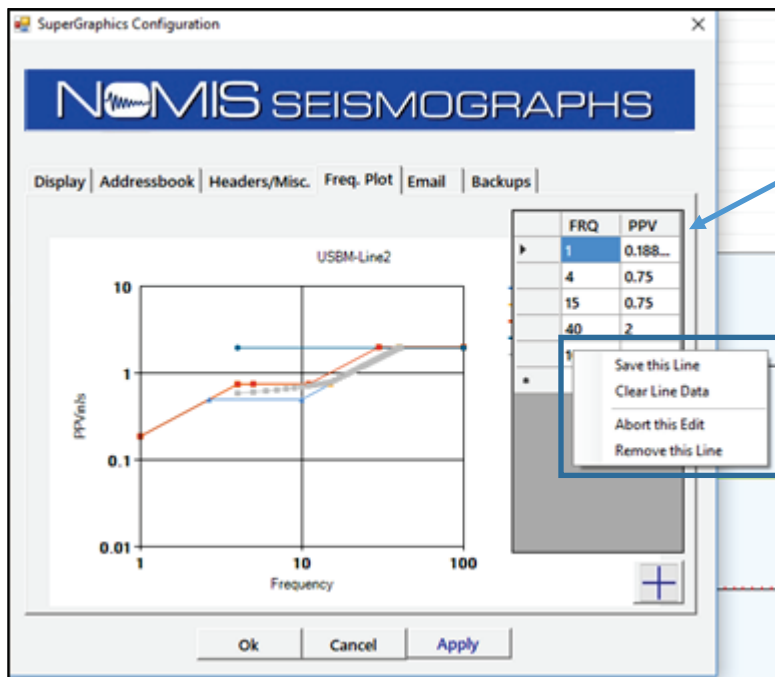
Click this button to add a new frequency plot standard. When you add a new standard, it will be selected and will display on the plot.



Right click on the Standards field to add a new line to the selected option, add a new standard, or delete the selected standard.



Right click on a displayed line to change or delete that line.



If you choose to change a line, the settings for that line will display, allowing you to make changes.

Right click again to save your changes, clear the line data, abort your edit or remove the line.

NOTE: When you add standards or lines on this screen, they will be stored in the registry of your computer. If you delete lines, they will be deleted from the program, but remain in the registry. If you later add a standard with the name of one you have previously deleted, a confirmation message will display to ask if you want to recall those deleted settings or overwrite them.

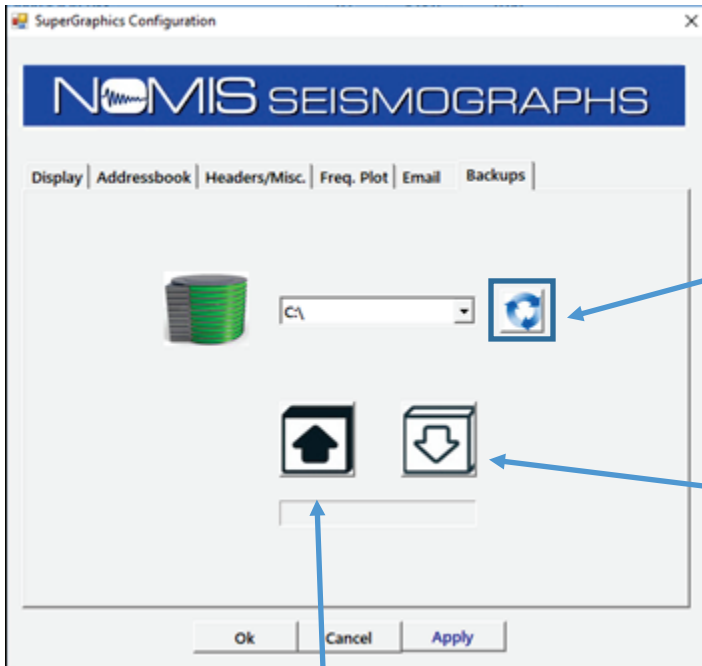
Email Settings

Enter the information needed to contact your email SMTP server for outgoing mail.

The screenshot shows the 'SuperGraphics Configuration' dialog box with the 'Email' tab selected. The dialog features a blue header with the 'NOMIS SEISMOGRAPHS' logo. Below the header is a menu bar with options: 'Display', 'Addressbook', 'Headers/Misc.', 'Freq. Plot', 'Email', and 'Backups'. The 'Email' section is divided into two main areas. The first area, 'Mail User Information', contains a 'Name (from)' field with the value 'Graph', an 'Email Address (from)' field with the value 'service@nomis.com' (marked as '(Required)'), and a 'cc Myself' checkbox. The second area, 'Outgoing Mail Server (SMTP)', contains fields for 'Server', 'Account Name', and 'Password'. To the right of these fields are dropdown menus for 'Port' (set to 25) and 'Connection' (set to Basic), along with a 'Test' button. At the bottom of the dialog are 'Ok', 'Cancel', and 'Apply' buttons.

Backup Settings

This tab allows you to save the current program configuration to a backup file. When you backup or restore, you will be prompted to confirm any overwrites or changes to the registry.



Click the refresh button to refresh the drive listing if you have recently connected to a drive or added new media.

Click the down arrow to restore configuration settings from backup. You will be prompted to confirm the restore.

Click the up arrow to save the configuration data. The data will be stored in the SuperGraphics II program directory.

Customer Support

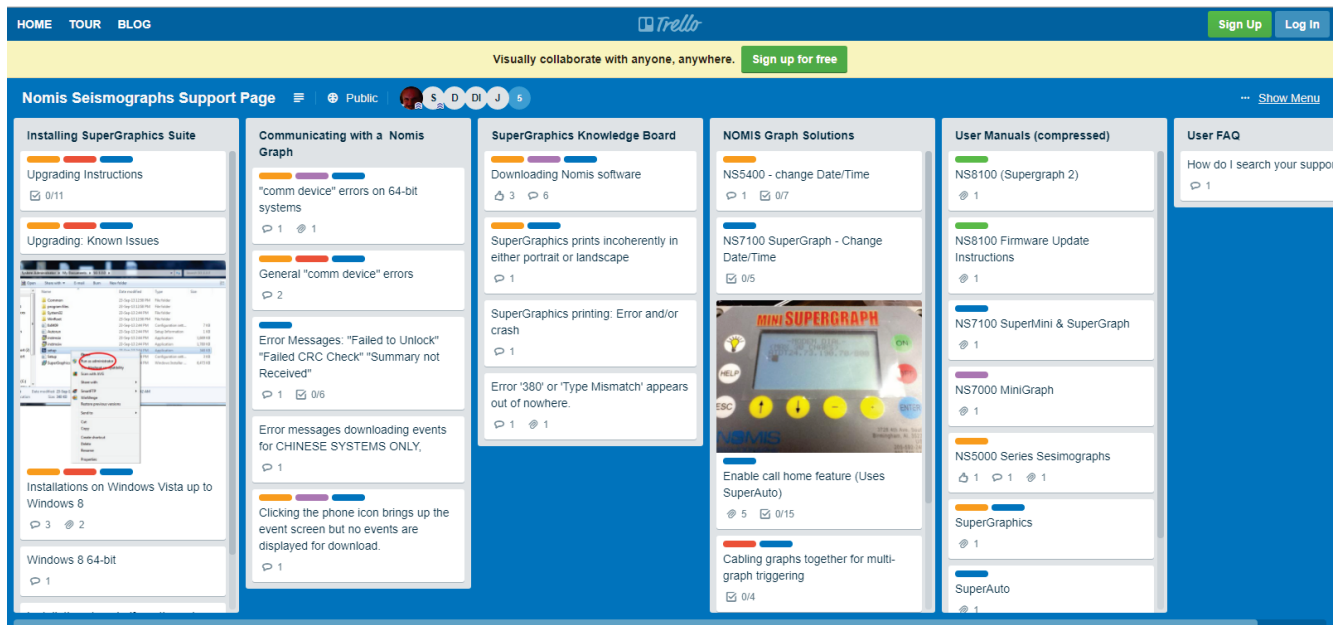
If you need additional help, please contact Customer Support in one of the following ways:

- Phone: (205) 592-2488 / (800) 749-2477
- Email: support@nomis.com
- If you need help with specific event files, go to the main screen, select one or more event records and click the Email icon at the upper right. This will email Customer Support with the details of the event so that they can provide assistance.

To use our knowledgebase and search for troubleshooting information, go to our website at www.nomis.com and choose Support > Nomis Support Page.



When the Support Page displays, you can sign up for an account so that you can search through all of our support topics and other user questions that have been answered.



Software Upgrades

To download and install the latest upgrade to the SuperGraphics II program, visit our website at www.nomis.com and go to Support > Software Releases.

Glossary

Term	Definition
Acceleration (A)	Vibration measurement used for some vibration analysis. The Acceleration is how fast the particle velocity changes. Typically measured in in/sec ² or mm/sec ² or g.
Airblast	Pressure change caused by a concussion wave in the air. Commonly reported in decibels (dB) or pounds per square inch (psi) or Kpa. The Peak Airblast is the highest Airblast level in an event. Decibels is a logarithmic scale while psi and kpa are linear scales.
BarGraph	Common term for continuous monitoring event file in a bar graph histogram format. This record includes Peak Particle Velocity and/or Peak Airblast over a given time period. This type of event record does not include detailed vibration time history.
Blasting	The use of explosives to break up rock.
Decibel (dB)	A unit used to measure sound levels. Decibels are measured on a logarithmic scale.
Displacement (D)	How far the ground actually moves during an event. Usually measured in thousandths of an inch or millimeters.
Event	A vibration record stored in the seismograph. This could either be a Waveform record or a BarGraph record.
FFT	Fast Fourier Transform is a way to analyze a waveform event based on the frequencies of the vibration data to determine the energy at the dominant frequency.
Frequency (Hz)	The number of times the ground returns to its original position in one second. Frequency is measured in Hertz (Hz), which is cycles per second.
Microphone	The portion of the seismograph that converts the air pressure into electrical data.
Particle Velocity	The speed (velocity) that the ground is moving. Commonly measured in inches per second (in/s or ips) or millimeters per second (mm/s). The Peak Particle Velocity (PPV) is the highest Particle Velocity in an event.
Seismograph	An instrument used to measure vibrations.
SuperGraph	Seismograph Manufactured by NOMIS Seismographs.
Transducer	The portion of the seismograph that converts the ground motion into electrical data, sometimes referred to as a geophone.
Waveform	Common term used to describe event file for triggered vibration reading with detailed vibration and frequency data.