



Software Reference Manual
For use with THOMAS INSTRUMENTS, INC.
VMS-2000P & VMS-2000M Seismographs.

This equipment and software should be installed by technically qualified personnel.
Any errors or omissions in data or its interpretations are not the responsibility of THOMAS INSTRUMENTS, INC.

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This Manual assumes first hand knowledge in the proper setup and use of the, THOMAS INSTRUMENTS, VMS-2000P, or the VMS-2000M model seismographs.

Main Screen for SeisWare.

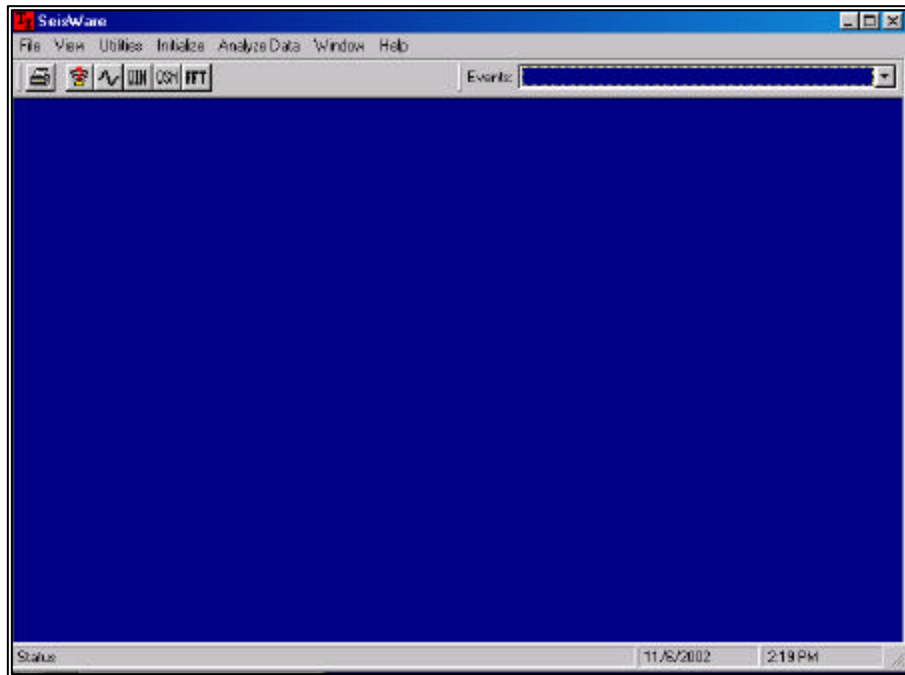



Figure 1. Main Screen

Toolbar Items

Print View Event View Waveforms DIN 4150 Anal OSM Anal FFT Charts



Each of these performs a function similar to one of the pull down menus.

File – File and Print related Pull-Down Menu

View – Select or Deselect the Toolbars shown on Main Screen – Selections for directories.

Utilities – Communications Console, Phone Number Editor, Firmware update utility.

Initialize – Units selection, PPV selection, Edit Headers and Edit Log Prompts

Analyze Data – Event Information, Waveforms, OSM Analysis, DIN 4150 Analysis, Sensor Test, FFT Analysis.

Window – Show Main Screen in the form you wish

Help – Help for SeisWare Program.

File Menu

Close Event - Closes the currently loaded event, that's selected in the events toolbar.

Open Event - Opens a previously saved event, from the directory where events are stored. This is the directory created in the View/Options/Directories menu

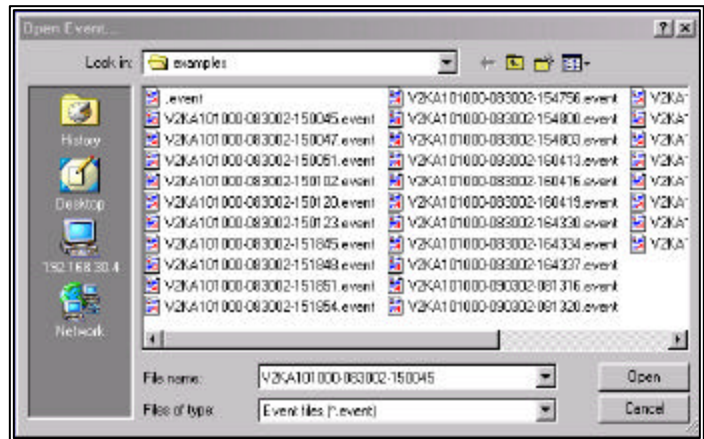


Figure 2. Open Event Dialog Box

Convert to ASCII - Converts the selected event to an ASCII text file.

Export to CSV File - Converts the selected event to Comma-Separated Value (.CSV) file and exports it to the directory you select.

Change Log - Allows the user to enter and edit the log information for the current session. This information is only stored for the current event, or a set of events downloaded from a unit. To change the prompts for this function use; Utilities/Edit Log Prompts.

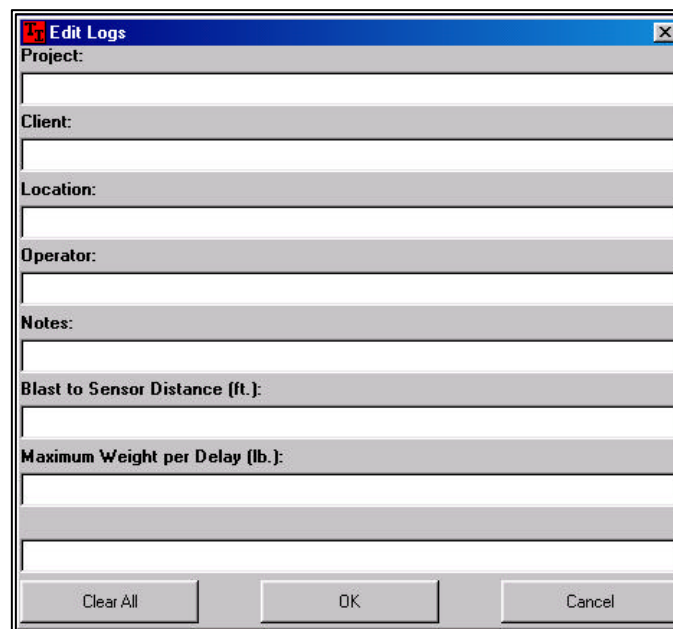


Figure 3. Change log for current event.

Print Report - Allows the user to select various print options for the selected event.

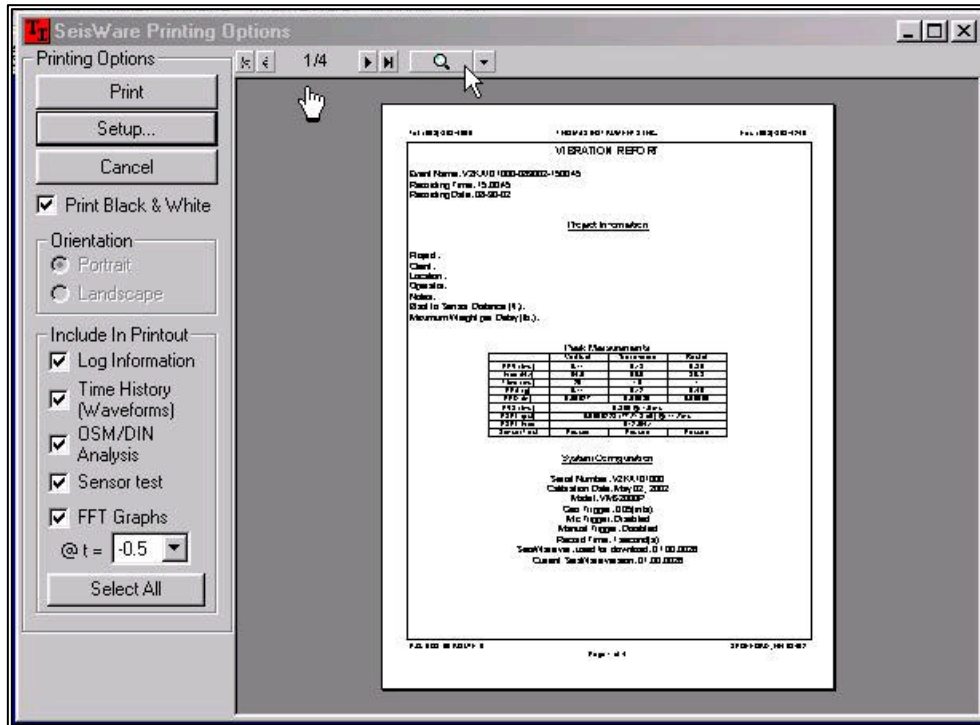


Figure 4. Print Report Options Dialog Box

The **hand** above points to the printout selection, it cycles through the selections
 ✓ Checked to left below **Include in Printout**

The **arrow** above points to view selection;
 Whole Page, Page Width, TwoPage, Thumbnail and various % sizes.

Print – Prints selected pages by the ✓ Checked to left below **Include in Printout**

Print One Page Report - Prints a Single one page report of the selected event.

Print All - Prints a One Page Report of all the events in the events directory. (Caution could be a lot of events to print)

Print Summary File - Prints the summary of the selected event.

Print Waveform - Print waveforms of the selected event.
 Select the Waveforms you want to print to a single Sheet. (uses same Dialog Box as Printing Options)

Send... - Send events to a mail recipient. -- Not Available

Exit - Exits SeisWare.

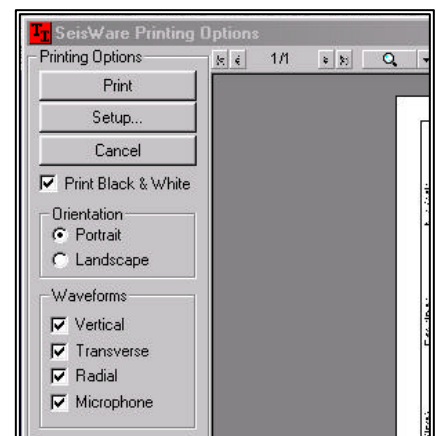



Figure 5. Print Waveform

View Menu

ToolBars - Allows the user to Show/Hides  the toolbar.
✓ next to Toolbar in pull-down menu, shows toolbar.

Status Bar - Shows/Hides Status bar.
✓ next to Status bar, shows Status bar at the bottom of the main screen.



Event List - Shows/hides the event list.
✓ next to Events bar, shows the Events bar at top of the main screen.



Options - Shows the options dialog.

Environment Tab

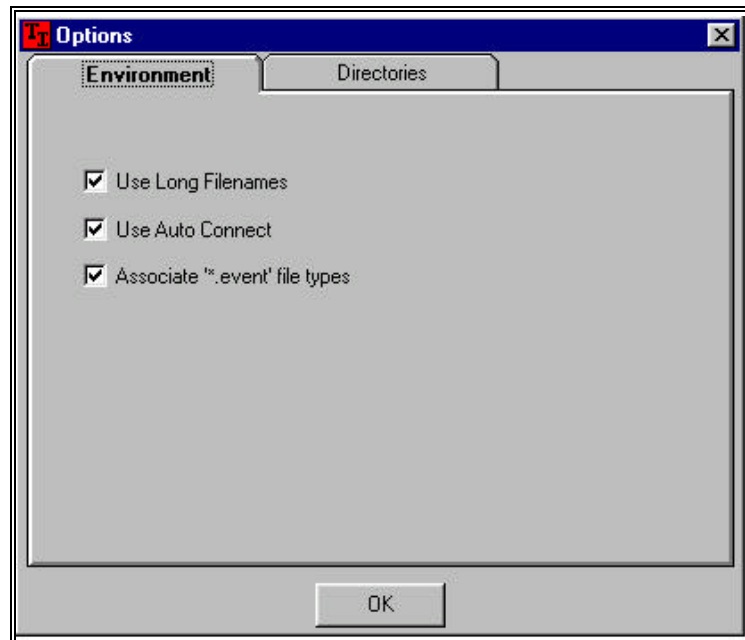


Figure 6. Options / Environment Tab

Use long filenames - Saves events using the long filename format if checked, otherwise the traditional VMS200/DOS 8.2 format is used, 8 character filenames.

Use Auto Connect - If the selected communications port is not connected when the user tries To get/send information to the device, enabling this option will automatically connect to the device. ✓ is the default.

Associate “.event” file types - Makes the .event file types recognized by SeisWare.

Directories Tab

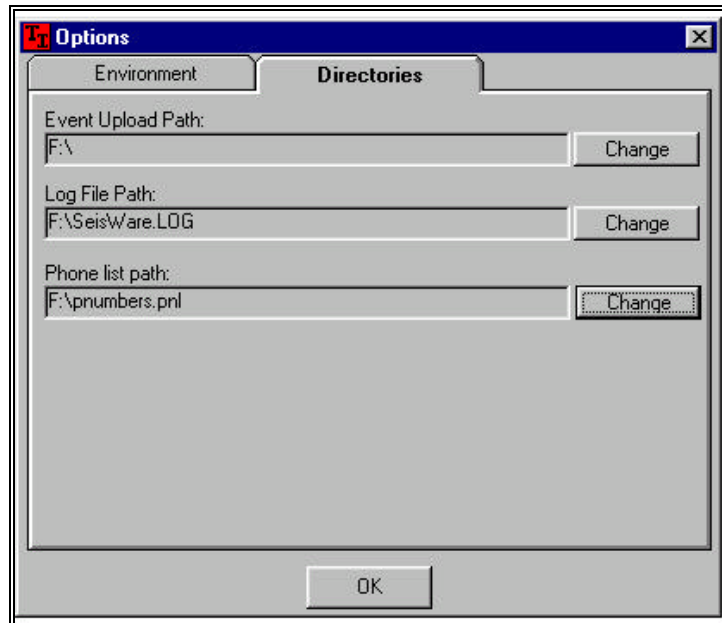


Figure 7. Options / Directories Tab

Event Upload Path - Create or change the path where the events are uploaded.
This has to be created once for Seisware to find it.
Click on the Change button and 'Choose a folder' or click the New Folder button to create a new one.

Log File Path - Choose/Create the path and name for the log file.
This has to be created once for Seisware to find it.
Click on the Change button and select a directory or create a new one and name the Log file (anyname.log), the name 'SeisWare.log' is used by default.

Phone list path - Create or Change the path to the current phone numbers list.
This has to be created once for Seisware to find it.
Click on the Change button and select a directory or create a new one and to name the Phone Number List file (anyname.pnl), the name 'pnumbers.pnl' is used by default.

Note: Information relative to Modems and Phone numbers are only functions of the Modem equipped model THOMAS INSTRUMENTS VMS-2000M Seismograph. The VMS-2000M units can be identified by viewing the LCD display and it will show VMS-2000M. If it isn't a modem equipped seismograph it will display VMS-2000P. Call Thomas Instruments to obtain a modem equipped seismograph if you find this option desirable.

Utilities Menu

Get Event Data - Retrieves all selected events from the Seismograph.

Utilities

Communications Console

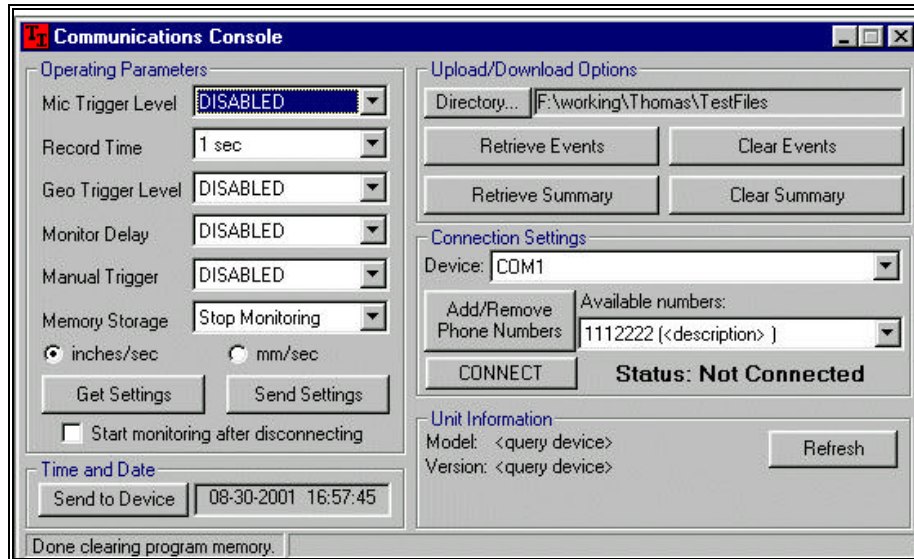



Figure 8. Utilities / Communications Consol Dialog Box

Operating Parameters - These are the operating parameters of the seismograph. They can be retrieved 'Get Settings' or it can be programmed 'Send Settings', through the PC's serial port, COM1, COM2(if so equipped) to the RS232 port on the front of the seismograph or by Modem through the Aux port on the side of the seismograph.

For changing down arrow for all of the  *parameters you can click on the pull (see hand) and select a setting. Use this process selections in this section*

Mic Trigger Level: - The trigger level of the microphone channel.
Choose from: DISABLED, 101, 105, 110, 115, 120, 125, 129 dB settings

Record Time - The recording time for triggered events.
Choose from: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 second recording times.

Geo Trigger Level - The trigger level of the Geophone.
Choose from: DISABLED, .02, .05, .10, .15, .20, .30, .50, .75, 1.00, 1.50, 2.00 in/s settings

Monitor delay - Delay time, the unit starts to monitor after time delay selected.
DISABLED, 1, 5, 10, 20, 30, 60, 90, 120 minute selctions

Manual Trigger - Manual trigger mode. ENABLED / DISABLED

Memory Storage - Memory settings. STOP MONITOR WHEN FULL or RECORD OVER OLDEST EVENT

Inches/sec - mm/sec - Changes the unit mode.

Get Settings - Retrieves the current settings from the seismograph.

Send Settings - Once you have mad all the selections above then by clicking this button sends the settings to the seismo graph.

✓ Start monitoring after disconnecting - This only has an effect when the seismograph is connected through a modem. ***If checked, the seismograph will start monitoring after the modem has disconnected.***

Time and Date

Send to Device - Sends the current time and date to the seismograph. This only works if the Device is selected properly. (see Connection Settings below)

Upload / Download Options

Directory - Directory where upload and download of event data will take place. ***This directory will be show during download process.***

Retrieve Events - Gets events from the seismograph. ***When selected a list of events in memory are displayed, from which you can choose which ones to download. Place a ✓ in the box of the events you wish to download.***

Clear Events - Clears the events from the seismograph.

Retrieve Summary - Gets the current summary of events from the seismograph. ***Note: The event summary is a list of the last 100 events, with the event data. This is a rolling file where the oldest event gets replaced by the newest event logged.***

Clear Summary - Clears all of the current summary events from the seismograph. ***It is not necessary to clear the summary unless you want to.***

Connection Settings

To verify that the COM Port is set properly go to:
(this may vary on Windows versions but is similar)

Start

Settings

Control Panel

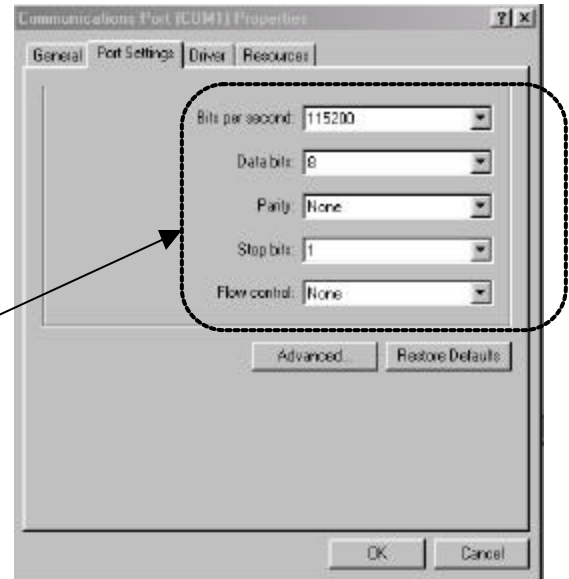
Device Manager

Ports

Communications Port (COM1)

Port Settings (tab)

Set to setting shown here



Windows Control Panel

Device - The device that will be used to connect to the seismograph.

Choose from: **COM1**, **COM2**, or **Modem** by the

These can vary based on how the PC equipped.

Note: To use the modem Connection Settings the Seismograph must be modem equipped.

Add/Remove Phone Numbers - Allows the user to store/delete phone numbers to be dialed by the modem to connect to the seismograph.

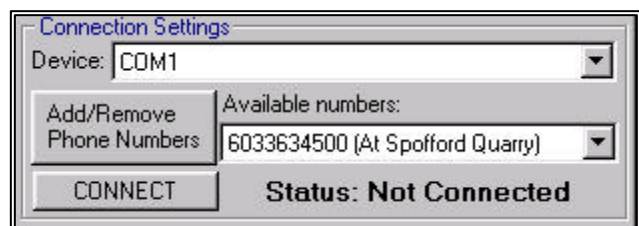
A directory must be created to save them.

(see Figure 7. Options / Directories Tab, Phone list path:)

Available Phone Numbers - Displays all of the phone numbers in the phone numbers list. Use the down arrow

to select the phone number desired.

Connect - Connects the Computer to the seismograph using the selected PC equipped Device. If the seismograph has a modem and **Modem** is the selected Device, clicking on Connect dials the Number Listed in the box above and right – *number (description)*



DEVICE should match usable Windows COM port

Unit Information - Displays the model number and version of the firmware of the currently connected seismograph, after Refresh button is clicked.

Refresh - Retrieves model number and firmware version information from the seismograph.

Utilities

Phone Number List – This allows you to enter various phone numbers that your Seismograph is connected to.

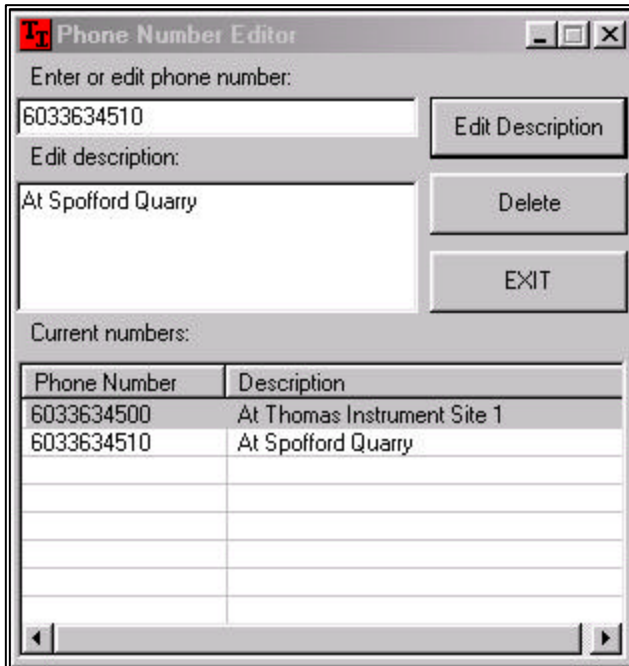


Figure 9. Phone Number Editor

Enter or Edit phone numbers, click in the open box below and enter phone number of the seismographs remote location.

Edit description: click on the open box below and enter the description.

To change information of an already stored number select a Phone Number from the Current number list and click on Edit Description button.

To Delete a number from the Current numbers list. Select the number you need to remove and then click on the Delete button.

Once you have your list edited the way you want it then click on EXIT.

Access to the Phone Number Editor is accessible through the Communications Console as well, Click on the Add/Remove Phone Numbers button.

The numbers are associated with the, Phone List Path, this is the directory that you set to store the (pnumbers.pnl) file of the phone numbers. This can or must be created or changed through the View Menu/Options/Directories (see Figure 7.)

Utilities

Firmware Update - Updates or Flashes the seismograph with a selected binary file. This is used for firmware updates that become available, without returning the seismograph to **THOMAS INSTRUMENTS**.

Initialize Menu

Units of Measure - English - Selects the English measurement system.
Metric - Selects the Metric measurement system.

Peak Velocity - OSM/USBM - Displays the OSM/USBM Analysis of the current event.
DIN 4150 - Displays the DIN 4150 Analysis of the current event.

Edit Header Information – Enter your own Header information.



Figure 10. Header Information

Allows the user to edit the current header information. If there is an event open, the changes will only apply to the current event, otherwise the information is stored as the default.

Edit Log Prompts - If you keep several events from different locations, Edit Log Prompts displays the prompts for the Change Log selection in the File Pull-down Menu.

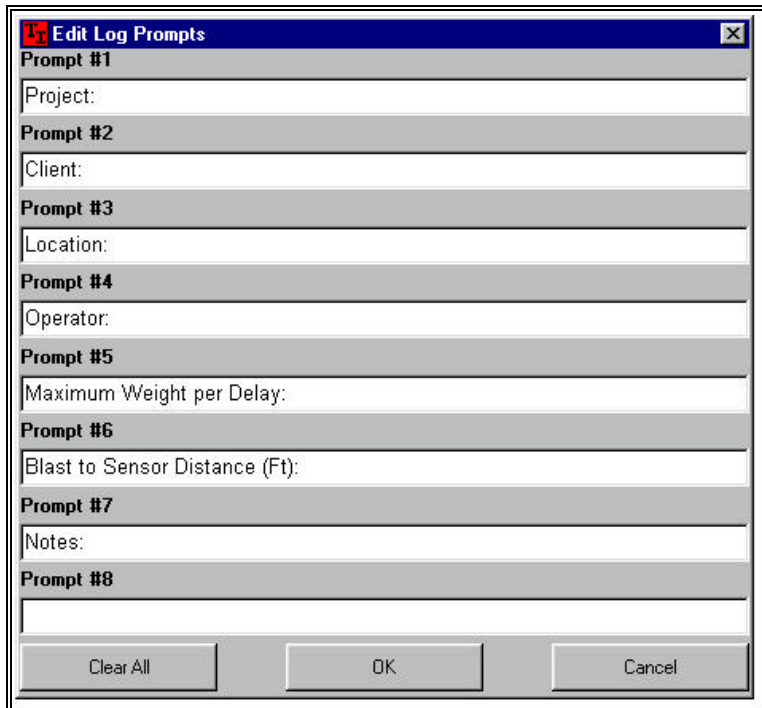


Figure 11. Log Prompts, Examples of what could be entered.

Allows the user to edit the current log prompts. If there is an event open, the changes will only apply to the current event, otherwise the information is stored as the default.

Analyze Data Menu

Event Information - A summary of the event data.

Waveforms - A display of the event waveforms.

OSM Analysis - An OSM analysis of the event data.

DIN 4150 Analysis - A DIN 4150 analysis of the event data.

Sensor Test - A graphical representation of the sensor test for the current event.

FFT Analysis - FFT graphs for the current event.

Window Menu

Cascade - Cascade all windows in the main view.

Tile Horizontal - Tile all windows in the main view horizontally.

Tile Vertical - Tile all windows in the main view vertically.

Arrange Icons - Arranges all minimized windows.

Help - Gets you to the Help File for SeisWare.

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