



Waveform Capture PC Application

User's Manual

Version 1.3

Updated: 10/30/07

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1.0 Program Description

This program can be used for downloading, creating and/or displaying SS3 waveform capture files. The waveform data can be downloaded from the SS3 through the serial or Telnet service ports. The program can also be used to view SS3 waveform files which are attached to email sent by the SS3.

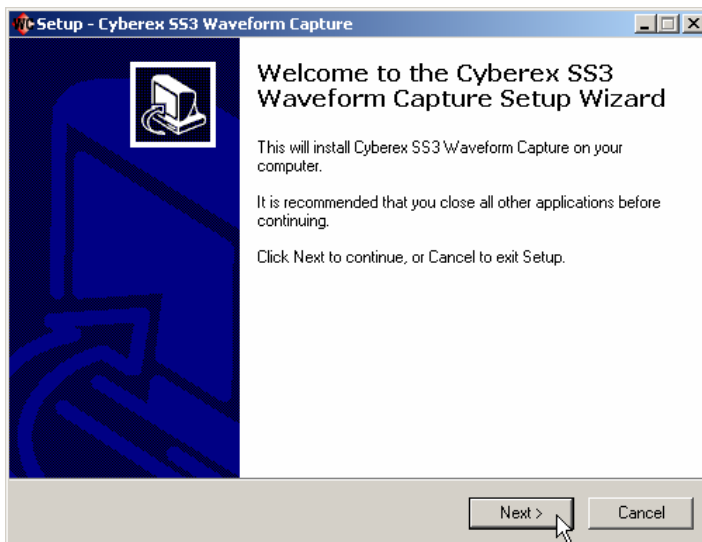
2.0 PC System Requirements

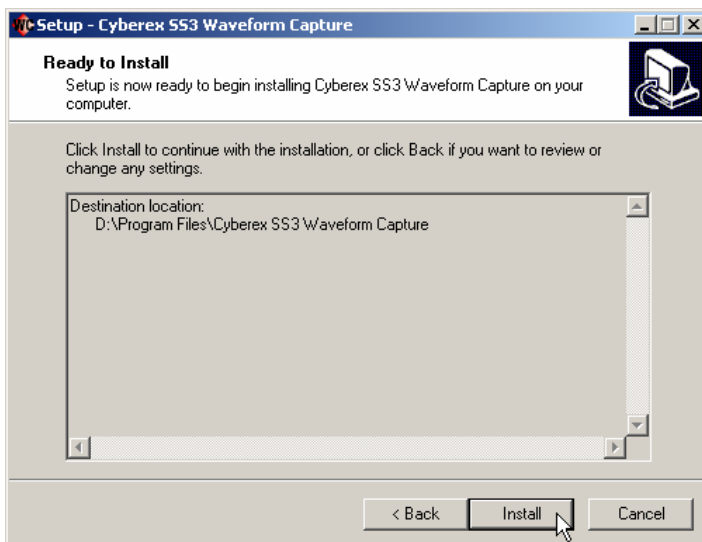
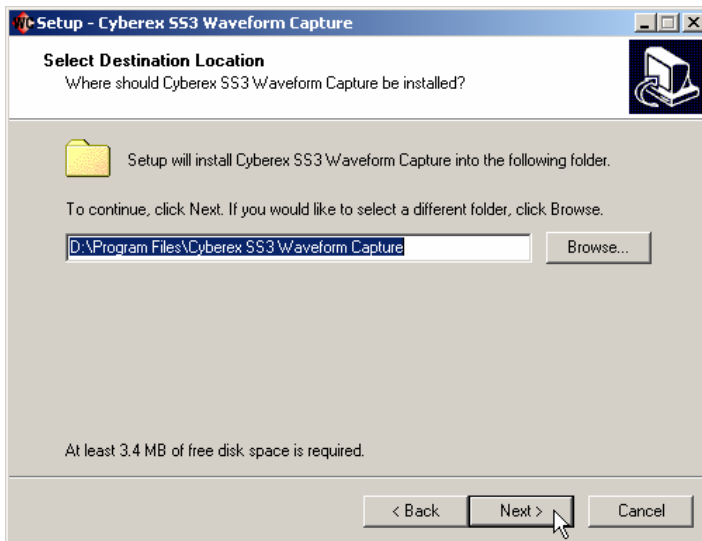
- IBM Pentium or higher (or compatible) PC.
- Microsoft Windows 2000 or higher.

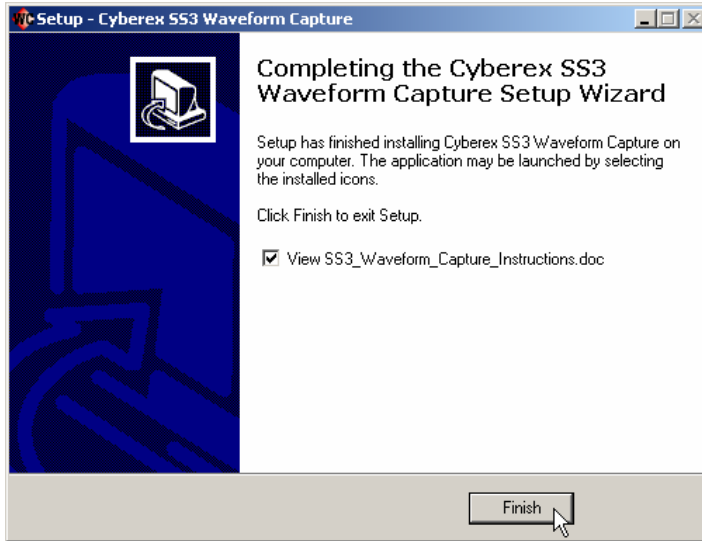
3.0 Installation

This program can be installed launching the 'SS3_Waveform_Capture_Setup_vX_X_X.exe' file provided.

Following are examples of the dialog boxes that will appear during the installation. Follow the instructions in each box.







This setup program will install will put a shortcut on the Desktop and in the Windows Start→Programs folder.

4.0 Opening Waveform Files

When the program is started for the first time, the main window will appear blank as shown below in Figure 4-1.

SS3 waveforms will appear as the waveform files are opened. (See Figure 4-2.) Existing waveform files can be opened by either by dragging and dropping into the Main Window or by selecting File→Open in the main menu bar using the standard MS Windows practice. When this program is used for downloading waveform capture data from the SS3, it automatically creates a waveform file and opens it for viewing. The waveform file is saved on the hard disk. The download feature will be discussed later.

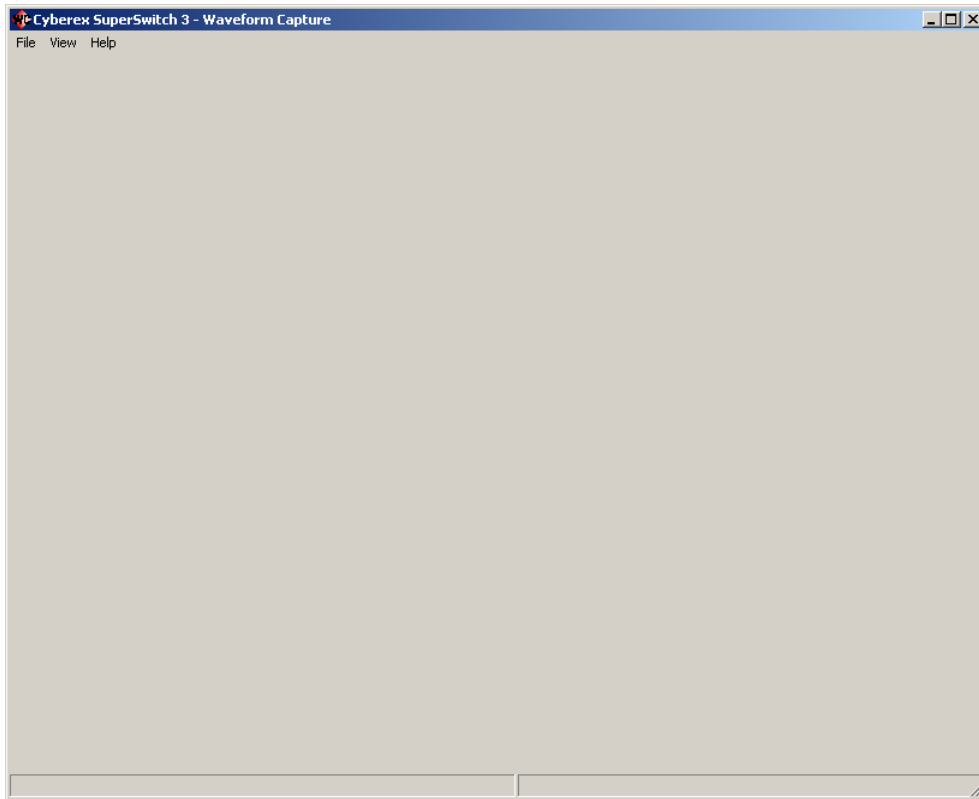


Figure 4-1 – The Main Window after Installation

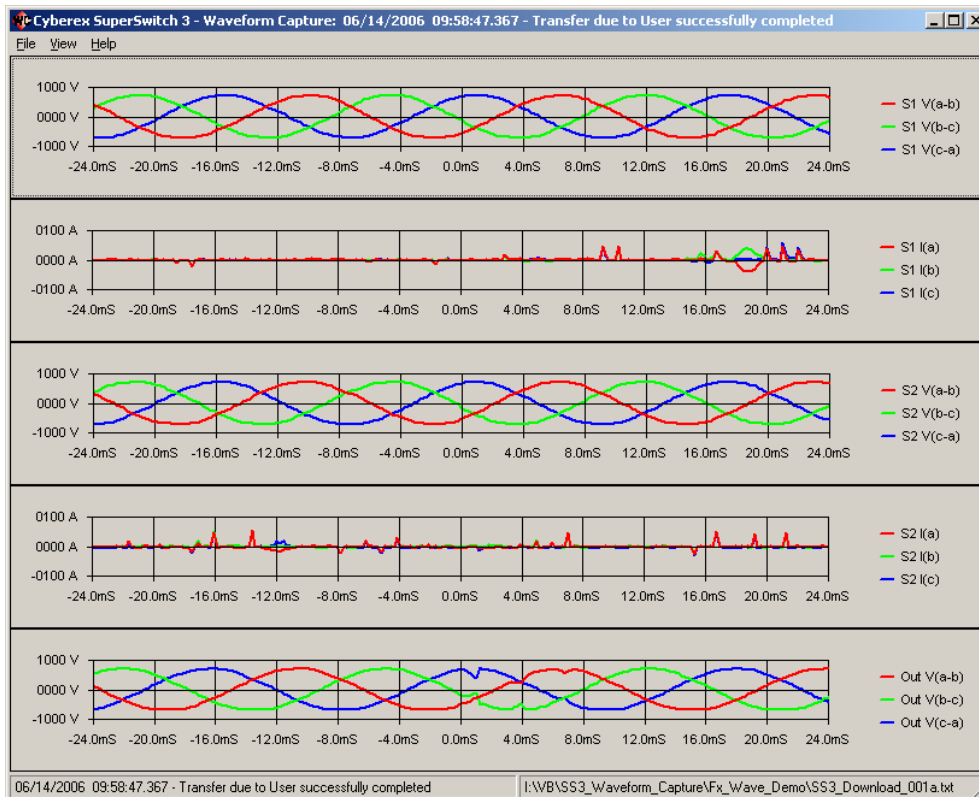


Figure 4-2 – The Main Window after Opening a Waveform File

5.0 Selecting Views

When a file is opened, the "All Charts" view is the default view as shown in Figure 4-2 above. The zero-time (0.0mS) line on the charts indicates the SS3's transfer trigger point. The Main Window can be resized to any size or maximized to fill the screen using the standard MS Windows practice.

Other views can be selected by selecting them on the View menu as shown below.

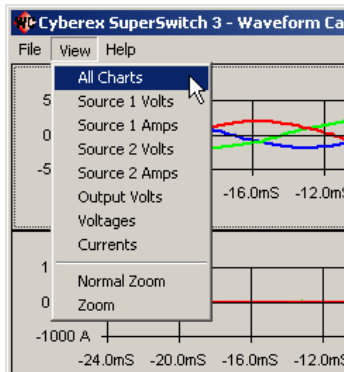


Figure 5-1 – The View Menu

6.0 Using the Zoom Box

The time scale and position of the charts can be changed by opening the Zoom box. The Zoom box can be opened by selecting View→Zoom or by right-clicking on a chart.

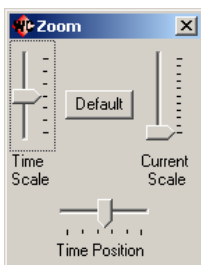


Figure 6-1 – The Zoom Box

When the Zoom Box is opened, the two slider controls control the time scale and position of the charts. These controls can be adjusted either by the mouse or more conveniently by the arrow keys on the keyboard.

The Left and Right arrow keys make the zero-time line on the charts move left and right, respectively. (This also moves the horizontal slider left and right.)

The Up and Down arrow keys make the waveforms appear to zoom in and zoom out, respectively. (This also moves the vertical slider up and down.)

The "Def" button on the Zoom Box sets the charts back to the default time scale and position.

7.0 Opening Multiple Windows

Individual charts can be opened in separate windows by simply double-clicking on the chart you want to open. The time scale and position can be independently adjusted in each window as desired. For example, in the screenshot below, the smaller window was opened by double-clicking the Output chart at the bottom of the larger window. The Zoom Box was then used to zoom in on the smaller window.

The program can also open multiple unrelated waveform files by selecting File→New in the menu bar.

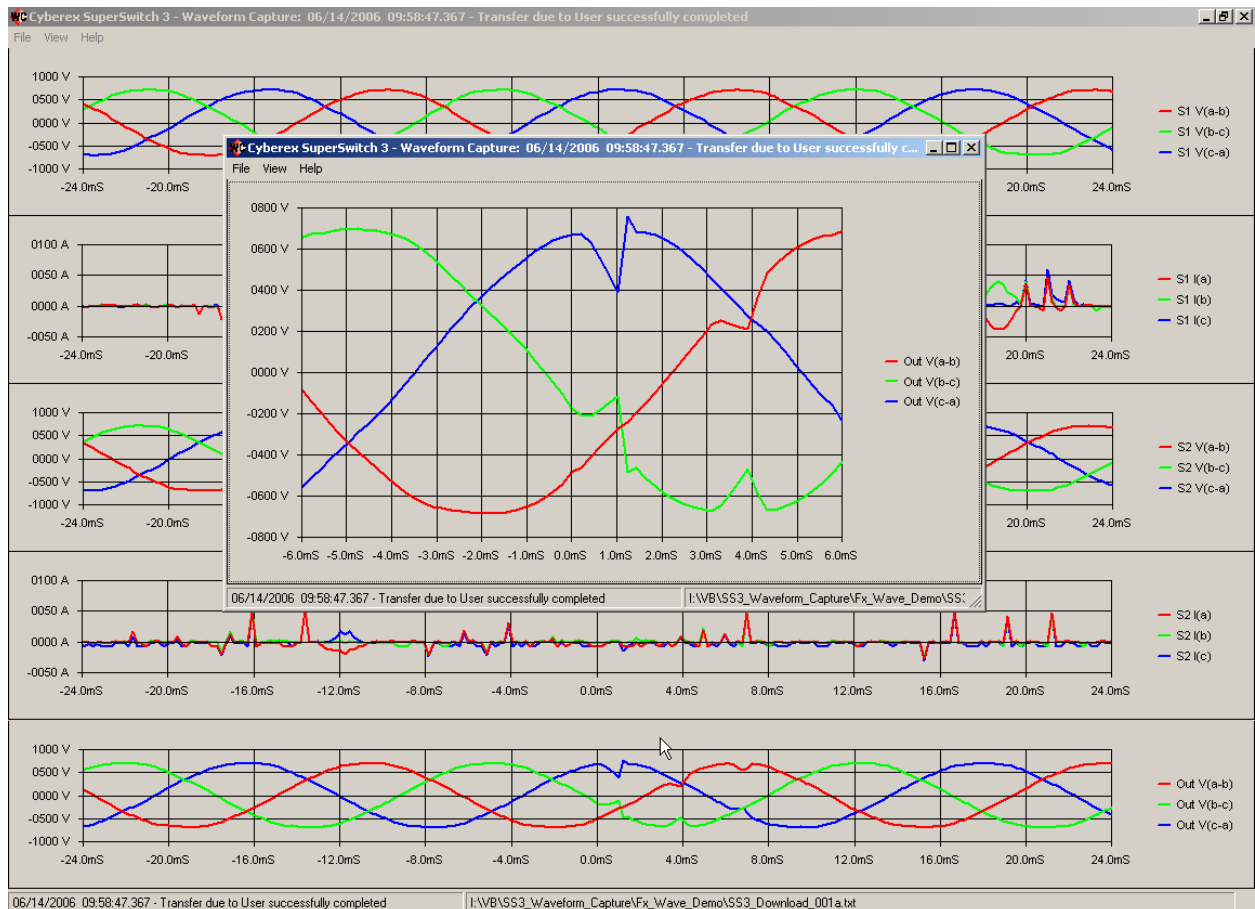


Figure 7-1 – The Zoom Box

8.0 The Most Recently Used File List

The program saves the paths to the last eight files opened in a Most Recently Used (MRU) file list as shown below.

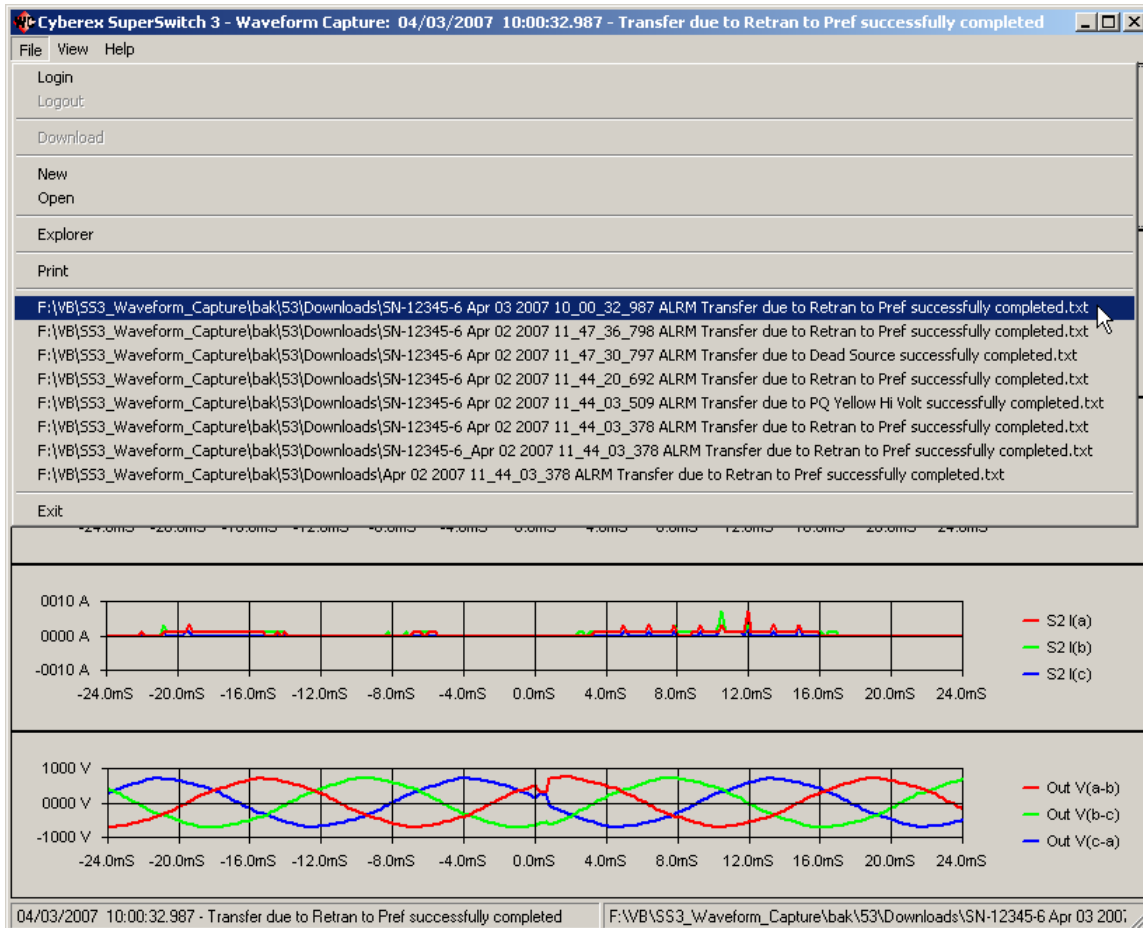


Figure 8-1 – The MRU File List after Opening Waveform Files

9.0 Printing Charts

The chart images can be printed selecting File→Print on the main menu bar. Generally, the Landscape printer setting will give the best results.

10.0 Downloading Data from the SS3

10.1 The Initial Login

An initial login must be performed before data can be downloaded data from the SS3. The password for the SS3 "admin" user is required. Once you are logged in, you have the option of logging out between uses, or remaining logged in for future uses.

To log in, click File→Login on the main menu bar. The Login dialog box will open as shown below.

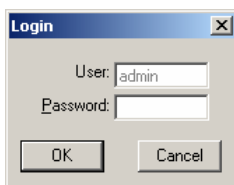


Figure 10-1 – The Login Dialog Box

Enter the SS3 "admin" user password and click OK. The program will retain this login status until a logout is performed. To log out, select File→Logout on the main menu bar.

10.2 Selecting the SS3 Connection

After the login has been performed, the File→Download main menu item should become enabled. To select the SS3 connection, click on File→Download on the main menu bar. The SS3 Connection dialog box should appear as shown below.



Figure 10-2 – The SS3 Connection Dialog Box

When the program is installed, it is configured with only one comm. port (COM1) as shown above. Comm. ports and IP addresses can be added, removed and saved by the program so that they will be available when the program is closed and reopened later.

To add a new comm. port or IP address, type it in over the one showing in the combo (dropdown) box. (See Figure 10-2 above.) Once the item has been changed, the Save button (below the combo box) will become enabled. You can then save the new port or address in the list by clicking the Save button. To see the items in the list, click on the down-arrow button on the right-hand side of the combo box as shown below in Figure 10-3. Then you can select the item you want to use.

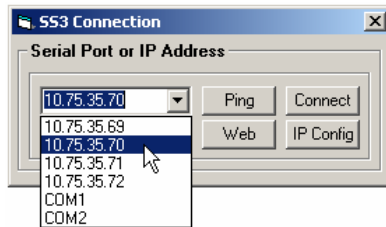


Figure 10-3 – The SS3 Connection Dialog Box

To remove an item from the list, select the item and click the Remove button under the combo box (Figure 10-2).

After an IP address has been selected, the Ping button can be clicked to test the connection by pinging the SS3. Clicking the Web button will open the SS3's web server, if it is enabled on the SS3. Clicking the "IP Config" will show the TCP/IP settings of the PC.

Note: To download waveform data from the SS3 using the Telnet service port, the TCP/IP settings on the PC and SS3 must be set up properly and the Telnet must be enabled on the SS3. To download waveform data from the SS3 using the serial service port, no special settings are required on the SS3, (except for the Waveform Capture feature, which must be enabled on the SS3 in either case).

10.3 Initiating the Connection to the SS3 and Downloading the Waveform List

After the SS3 connection setting has been selected, click the Connect button to initiate the connection to the SS3. The SS3 Service Port Terminal window should open as shown below in Figure 10-4. The program should automatically log in to the SS3, read the SS3's serial number, and download the Waveform List as shown below.

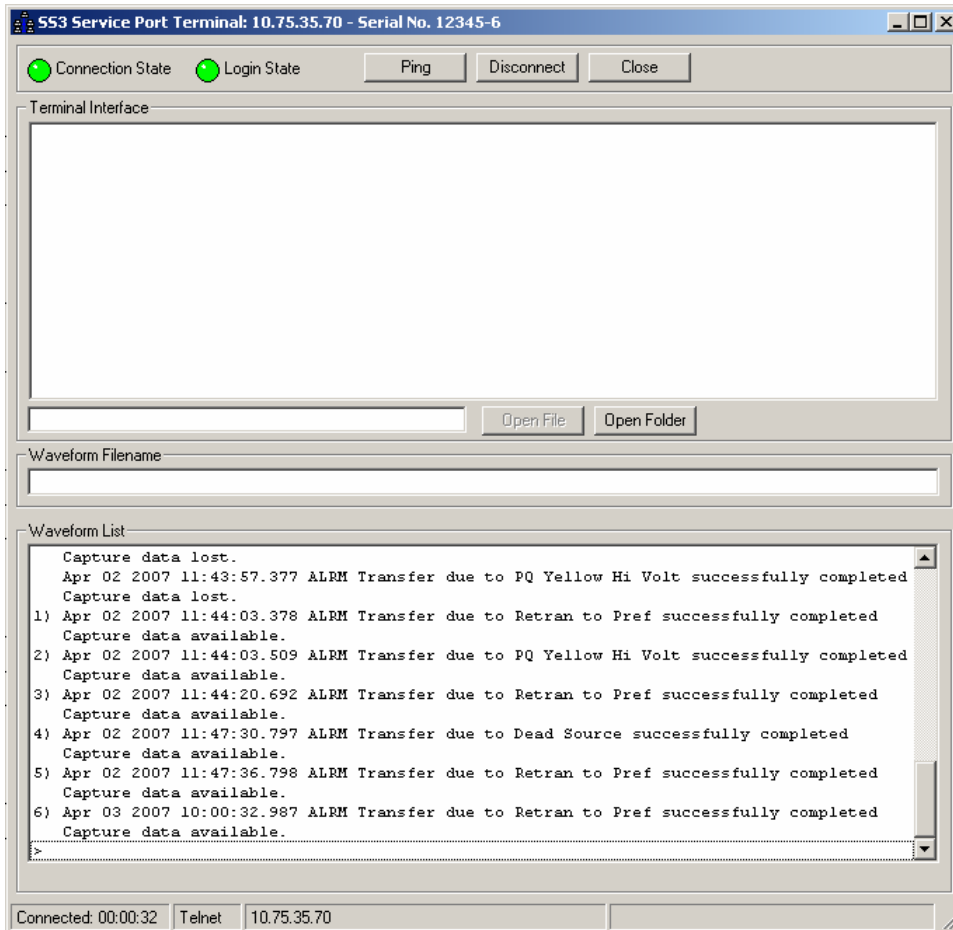


Figure 10-4 – The SS3 Service Port Terminal Window

The STS transfer events with waveform data available will appear as numbered items in the Waveform List. In the example above, there are six events (numbered 1 through 6) with waveform data that can be downloaded from the SS3 and viewed by this program.

10.4 Downloading Waveform Data an Event

To download the waveform data from one of the transfer events, double-click on the event and click on the popup menu item that appears as shown in the example in Figure 10-5 below. (You can also select an event by using the arrow keys and the Enter key.)

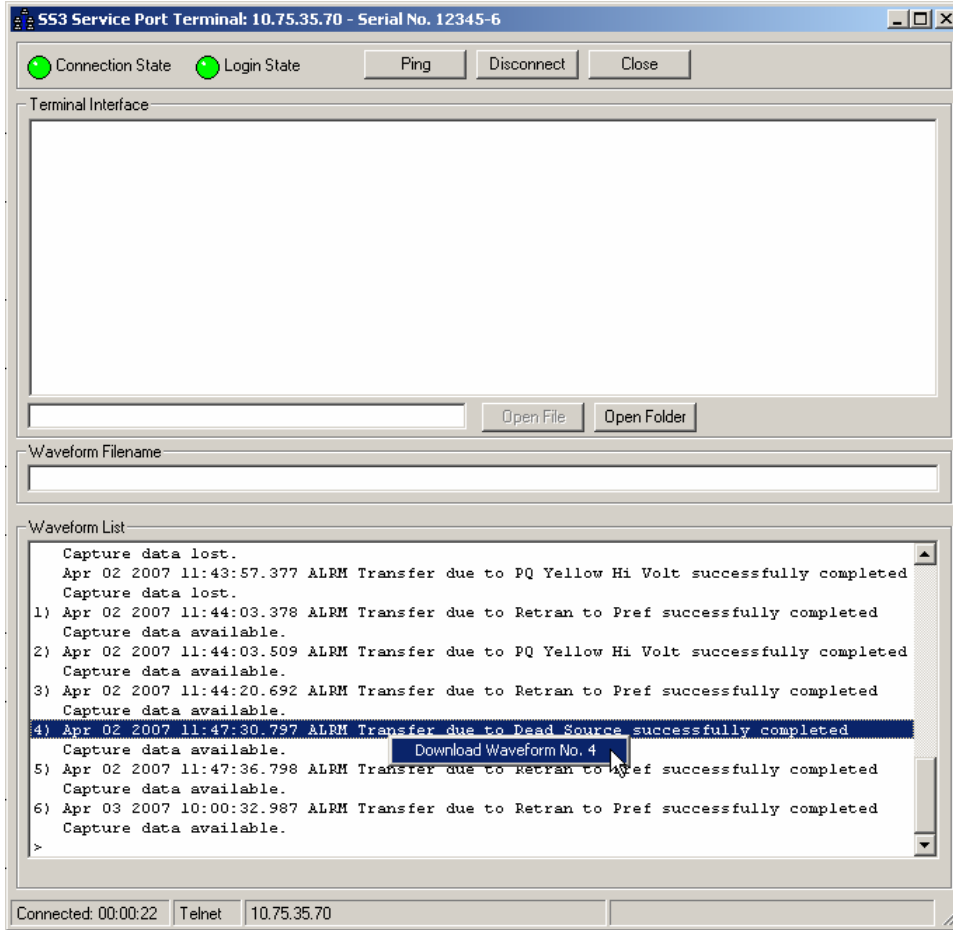


Figure 10-5 – Selecting a Waveform from the List

After the event is selected and the waveform download is initiated, the waveform data should be seen filling the upper "Terminal Interface" box as shown below in Figure 10-6.

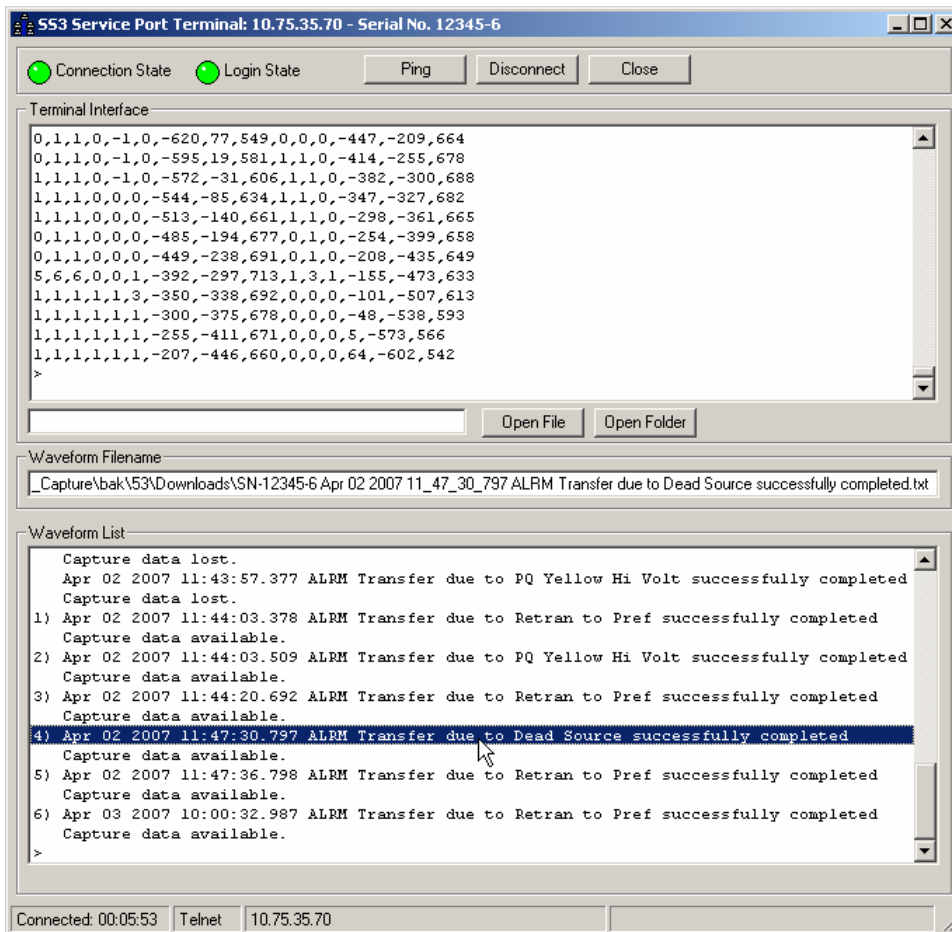


Figure 10-6 – After Waveform Data for an Event is Downloaded and Saved in a File

The downloaded waveform data is also saved in a file with the filename derived from the SS3's serial number and the event text (Serial Number/Date/Time/Description) as can be seen in the example above. All files are downloaded into the "Downloads" subfolder under the application's folder. If a file with the same name already exists, like if you download the same event twice, the old file is overwritten.

After the waveform data has been downloaded and saved into a file, the main window will be immediately updated with the new waveform images.

After downloading a waveform file, the file can be opened in your text editor by clicking the "Open File" button. When the "Open Folder" button is clicked, Windows Explorer will open with the waveform file selected.

While the SS3 Service Port Terminal window is connected to the SS3 (as shown above), it can be used as a terminal emulator by entering service port commands into the small textbox at the bottom of the "Terminal Interface" frame.