



Using the 824 Utility Software

824 Utility Software Overview

The 824 Utility software is a powerful tool for use with the System 824 from Larson Davis. This software will allow you to control, setup, download and translate your 824 and measurement data quickly and easily.

The 824 Utility program has three sections that perform the functions on the 824.

- The setup section provides support for creating, editing, storing and retrieving setups from the 824 and from files
- The download section provides a means by which to retrieve the measurement data from the 824.
- The translate section provides support for translating the downloaded measurement data, and displaying or printing it in a text format, or exporting the measurement data to a spread sheet program.

NOTE: 824 Utility software requires 824 firmware version 1.011 or greater. For the newer instrument ID's, (TAL FFT, and RTA) 2.100 or greater is required.

In this chapter will discuss installing the software, getting the software started on your computer, connecting the 824 to the serial port of your computer, the Main Screen Toolbar functions, and then go onto discuss each of the three functions of the software in greater depth.

824 Utility Installation

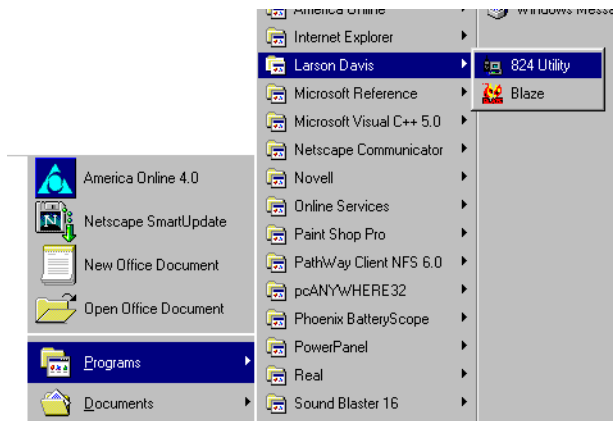
To install the 824 Utility software package place the disk labeled “disk 1” into the floppy drive. From Windows 95

press **START** and then select the **RUN** menu item. A prompt will appear to enter the program name. Enter “A:\SETUP.EXE”.

The 824 utility software will automatically begin the installation process. The installer program will prompt you through the installation. A prompt will appear asking to place disk 2 into the floppy drive. Place disk 2 into the floppy drive. A message will appear indicating that the software was successfully installed.

Starting the 824 Utility Software

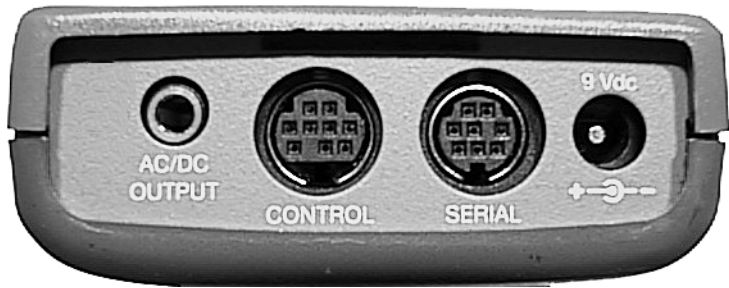
To start the 824 Utility software in Windows 95, press **START** and then select the **Programs/Larson-Davis/824Util** submenu item.



Connecting the 824 to Your Computer

To connect the 824 to a computer, use the CBL006 cable included with you System 824. The round 8-pin connector

plugs into the Serial port of the 824 and the 9-pin connector plugs into a serial port on your computer.



Before any functions can be performed on the 824, you must connect the 824 to the 824 Utility software. To connect to the 824.

Step 1 Attach the CBL006 to the 824 and to the serial port on the computer as described earlier.

Step 2 Start the 824 Utility program.

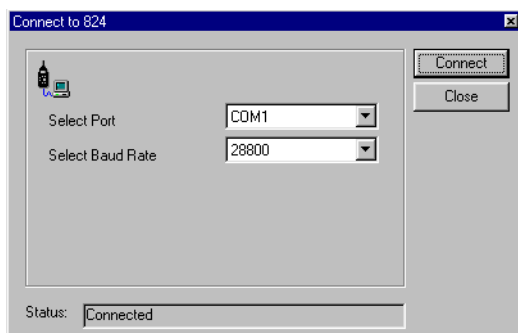
Step 3 Power on the 824.

Step 4 Press the Connect button on the tool bar.

NOTE: The 824 will power on when it senses anything on the serial connector. You may notice the 824 powering on automatically before you press the power button.



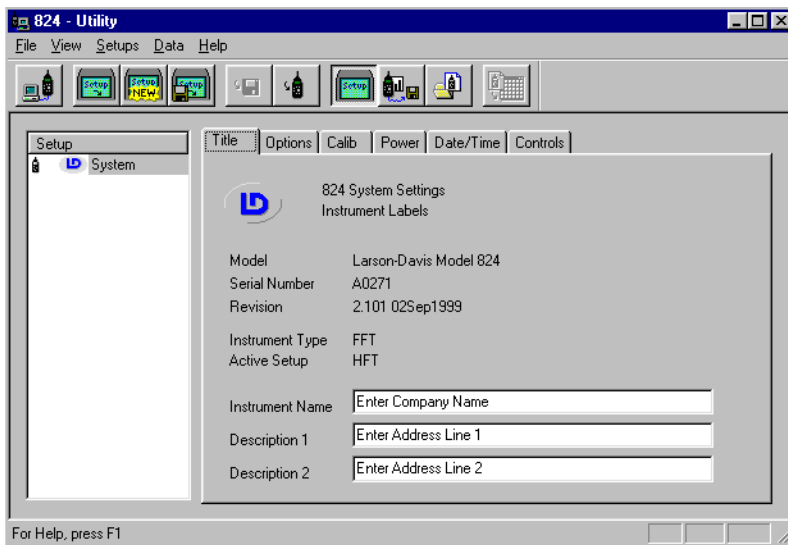
Step 5 The connect dialog box will appear.



NOTE: Please see Chapter 3 of this manual for details on changing the communications parameters on the 824.

Step 6 Make sure that the settings on the dialog box match the settings on the 824, and press the connect button.








After a successful connection, the setup window will appear with a system setup in the setup list box. The 824's serial number and title should be reported on the setup dialog box screen.






824 Utility Tool Bar

The tool bar for the 824 Utility program provides support for the main functions of the 824 Utility program. All Toolbar functions can also be performed from the pull down menus at the top of the 824 Utility Software screen.



	<p>Connect button. This button is used to establish a connection to the 824. Pressing this button will bring up the connect dialog box, where the connection parameters can be defined.</p>
	<p>Retrieve Setups from 824. This button will retrieve all current setups in the 824.</p>
	<p>Create new setup button. This button will allow the user to create a new setup that can then be saved to disk, or saved in the 824.</p>
	<p>Open a setup from a computer file. This button will allow you to retrieve previously stored setup file.</p>
	<p>Store setup to disk. This button will allow the user to store a setup to a disk.</p>
	<p>Store setup in 824. This button will store the setup in the 824. This function must be performed before the setup can be used inside the 824.</p>
	<p>Setup window button. This button will activate the setup window portion of the 824 Utility Program</p>

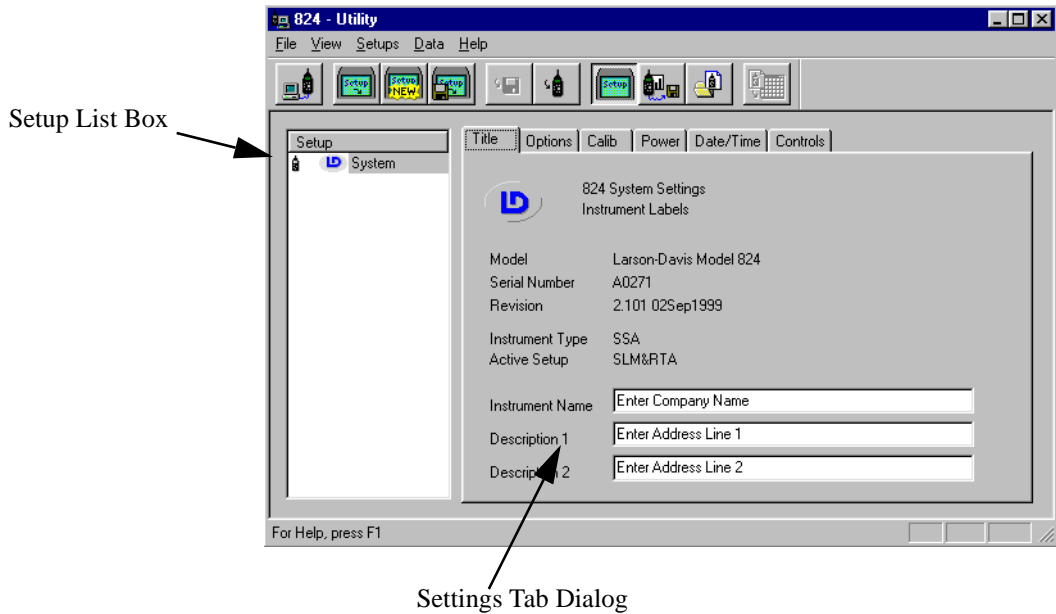
	<p>Download window button. This button will open the download section of the 824 Utility program.</p>
	<p>Translate window button. This button will open the translate section of the program. It will provide a file tree where the contents of the downloaded measurement files can be viewed.</p>
	<p>Export measurement button. Exports the currently selected measurement file to a user defined spreadsheet program. This button will only be active when you are in the translate section of the program, and there is a measurement text file being displayed.</p>

824 Utility Setup Window

The setup window is the default window that will open up when the 824 Utility program is started. The setup window will allow you to edit existing setups, retrieve setups from the 824 or a file, create new setups, and store setups to the 824 or to a file.

The main setup window has 2 sections: the setup list box, and the settings dialog section. The setup list box will list all setups that have either been created or retrieved from the

824 or a disk file. The settings dialog section will allow you to manipulate the setup.

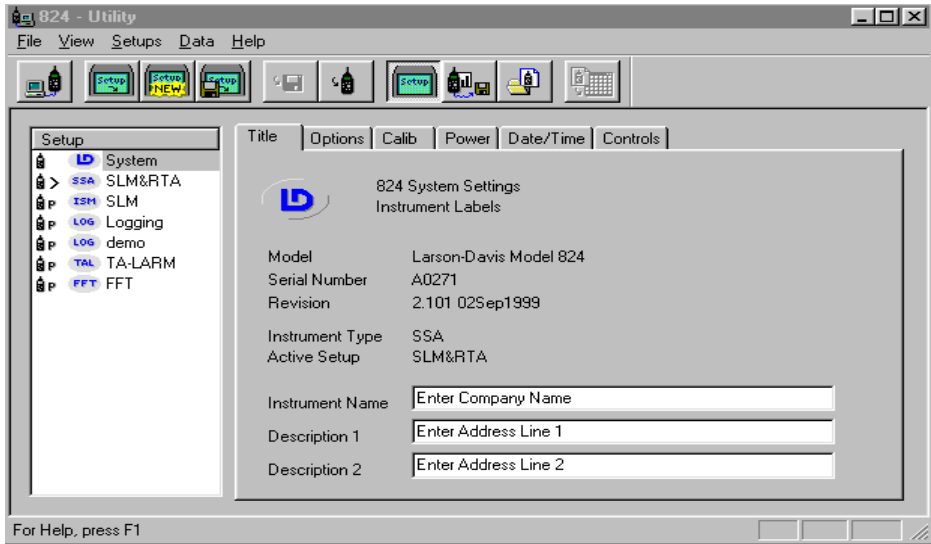


Retrieving setups from the 824

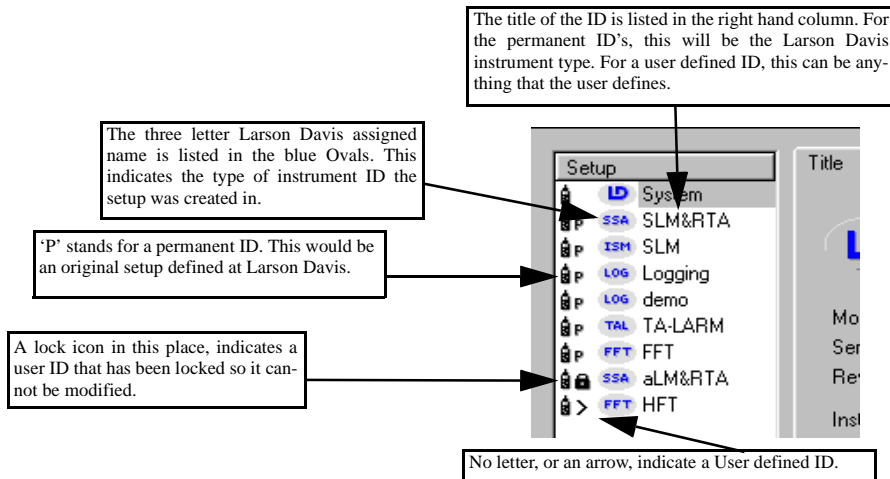
Setups stored in the 824 can be retrieved by clicking on the Get Setup button on the tool bar or by selecting *Get Setups From 824* from the *File* Menu.



Setups will be retrieved from the 824 and will be displayed in the *Setup* listbox.



In the list of setup files, the system setup is the first setup and is followed by all of the permanent and user-defined setups. In the setup list box, there are several parts of the Setup title that can be used to identify the setup type.

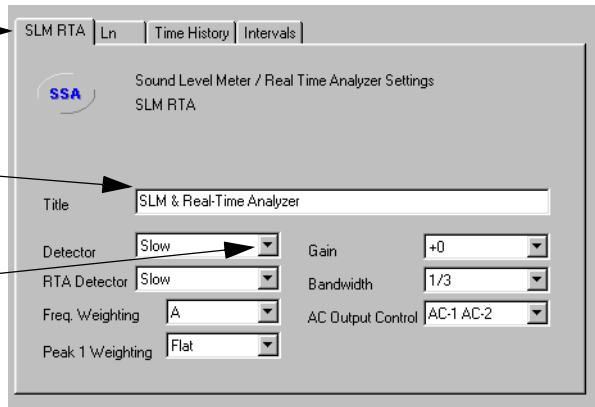


Highlighting one of the setups in the list displays all of the available settings in the setup dialog box (right side of the

window). The setups are organized and grouped similar to the 824 menu structure in the instrument. Click on the different tabs to access all of the setup parameters.

Select different tabs to access all of the setup functions.

Parameters can be entered manually, or the pull down selections can be used.



Modifying and Storing Setups to the 824

NOTE: If you change settings in the Utility program to an active setup in the 824, those changes will not take affect in the 824, until another setup is selected, and the modified setup is re-loaded.

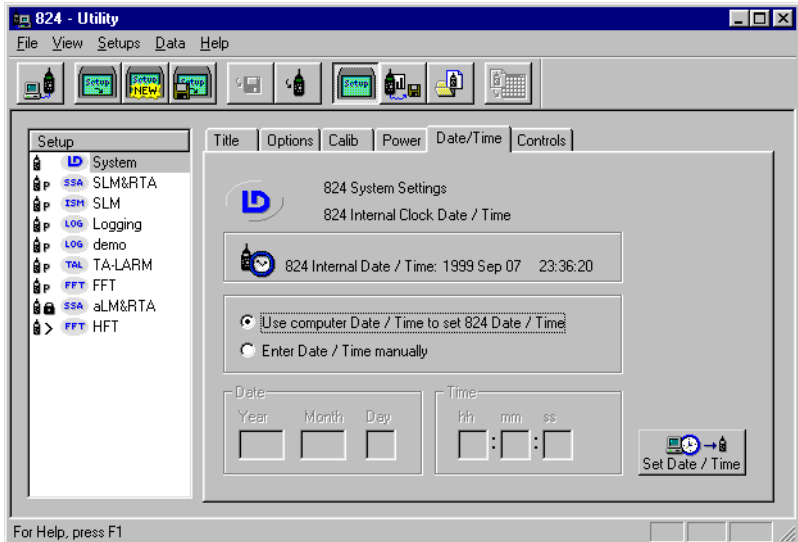
With the 824 Utility software you can make modifications to any of the setups. For example, in the System setup, you can change any of the parameters for the Title, Calibration, Power, Date/Time or Controls and then send the modified setup to the 824. To store the modified setup, select the **Save Setup to 824** menu item from the **File** menu or click on the **Store Setup in 824** button on the tool bar.



Changing System Settings

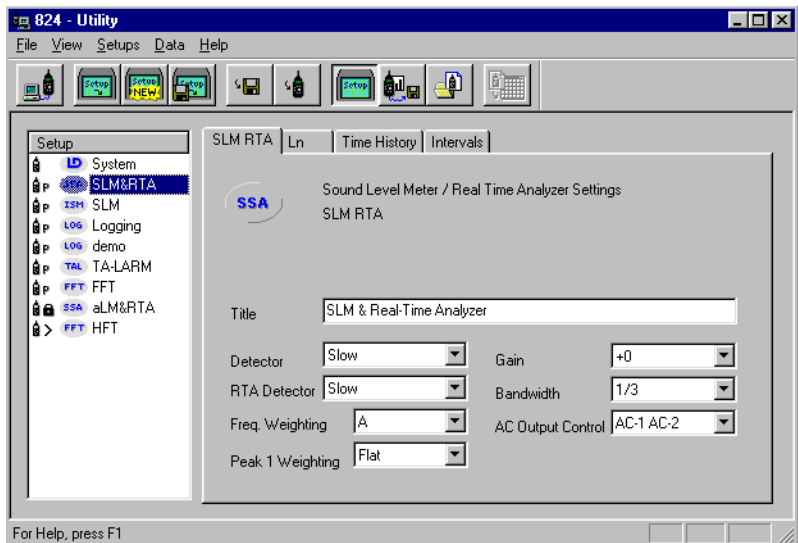
The system selection on the setup list box contains the general settings for the 824. The selections here include, Title, Options, Calibration, Power, Date and Time, and Controls.

To change one of these settings, click on the appropriate tab, and enter the changes.



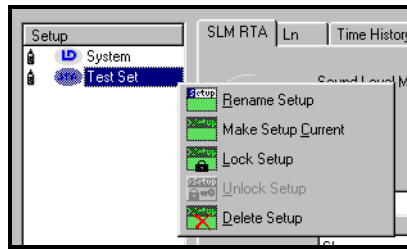
Manipulating a Setup

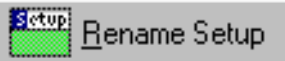

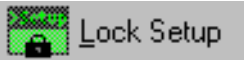


To change any of the variables for a particular setup, select the setup. The appropriate setup tab dialog will appear at the right of the setup list box. Select the setting you wish to change and enter the new value.



You can also access several setup functions by right clicking on the Setup in the Setup list box.

The following functions can be accessed by pressing the right mouse button while within the *Setup* list box. The *Setup Menu* items will appear enabled or disabled depending on the setup selected. For example, it is not possible to delete a permanent 824 setup, so the *Delete Setup* menu item will be disabled if a permanent 824 setup is selected.



	<p>The Rename Setup button allows you to rename the current setup.</p>
	<p>The Make Setup Current button will cause the currently selected setup become the Active setup in the 824.</p>
	<p>The Lock Setup button will lock the current setup. The Lock icon will not appear until the setup is retrieved again from the 824.</p>
	<p>The Unlock Setup button will unlock the currently selected setup.</p>
	<p>The Delete setup button will delete the currently selected setup.</p>

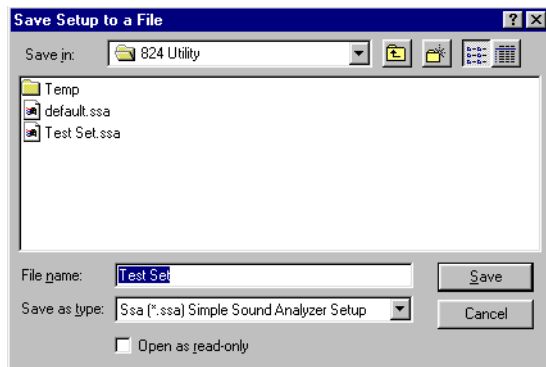
Saving Setups to Disk Files

Once you have created or modified a setup, you can store the setup to a file. Select the **Save Setup to a File** menu item from the File menu or click on the Save to File button on the tool bar.



NOTE: The system setup is automatically updated each time the 824 Utility is connected to the 824.

The 824 Utility program will bring up a standard windows save dialog box, where the file name and location of the setup can be specified.



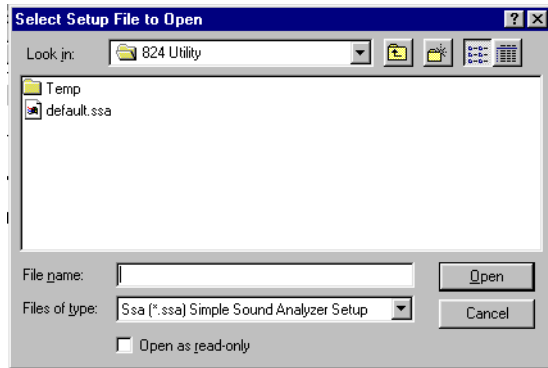
The System setup can be modified and stored back into the 824, but cannot be saved to a disk file.

Opening Setup Disk Files

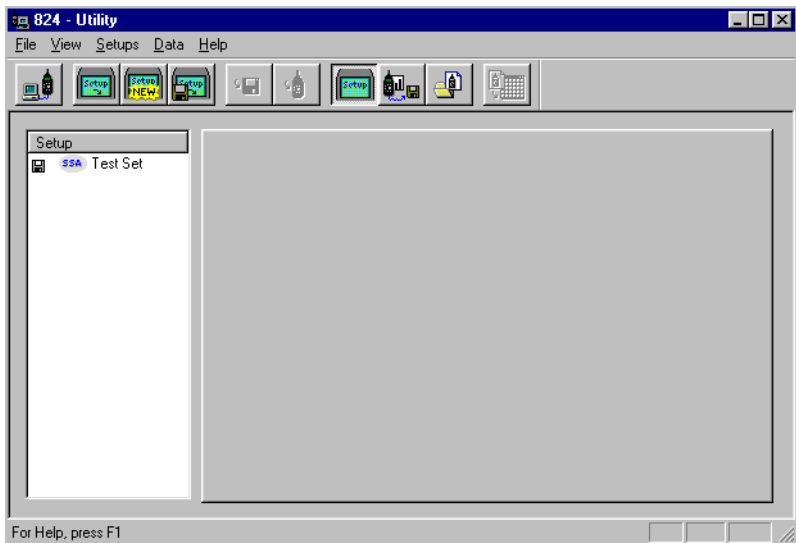
To open a setup disk file select the **Open Setup File** menu item from the **File** menu or click on the Open File button on the tool bar.



A standard windows Open File box will appear. Select the file folder that contains the file and select the setup file you want.



The setup appears in the *Select Setup* list box. You can then select (highlight) the desired setup in the list. The highlighted setup can then be sent to the 824 by selecting the *Save Setup to 824* menu item from the *File* menu.



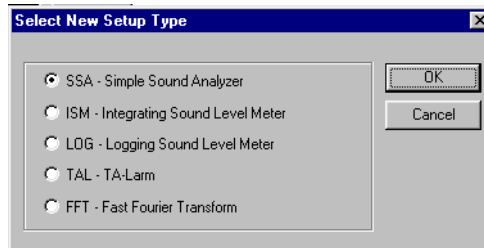
Other menu items available in the *Setup* Menu include renaming, locking, unlocking, deleting, or making the selected setup the active setup.

Creating a New Setup

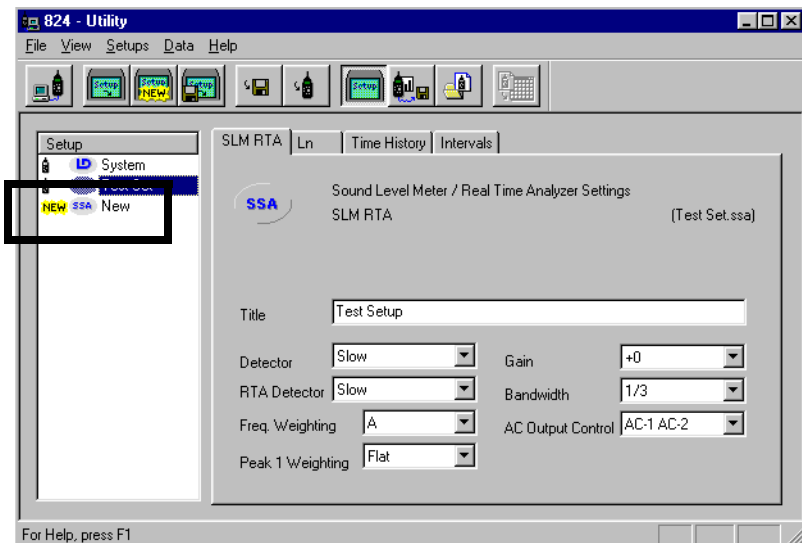
You create new setups by selecting the *New Setup* menu item from the File menu or by selecting the New Setup button on the tool bar.



A dialog box will be displayed to allow the type of the new setup to be selected.



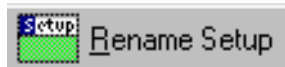
Press the **OK** button and you will now see the new setup in the *Setup List* box.



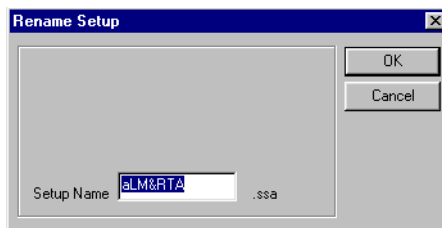
The new setup is now defined for a particular instrument ID, and can be modified from the Setup List box. After creating a new setup, you can store it to a disk file, or send it to the 824.

Renaming an Existing Setup

To rename an existing setup, right click on the setup in the left hand side of the screen and select **Rename Setup** from the popup menu.



A dialog box will be displayed to allow you to change the name of the selected setup.



Enter the new name for the setup, and press the OK button.

NOTE: The permanent setup ID's in the 824 cannot be renamed.

After renaming a setup, you can store it to a disk file, or send it to the 824.

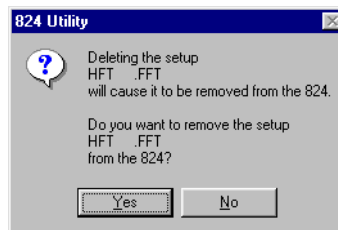
Deleting an Existing Setup

To delete an existing setup, right click on the setup in the left hand side of the screen and select **Delete Setup** from the popup menu.



NOTE: This section applies only to setups that exist on the 824. If a new setup or a setup that is stored to disk is deleted, this message will not appear.

Pressing the Delete Setup button will bring up a prompt asking if you are sure you want to delete the setup.



WARNING! The setup will be deleted from the 824 and the Utility program.

Locking and Unlocking Setups

To prevent accidentally deleting a setup, right click on the desired setup and select **Lock Setup** from the popup menu. Note that if you have just created a new setup, the setup must first be stored to the 824 before it can be locked.

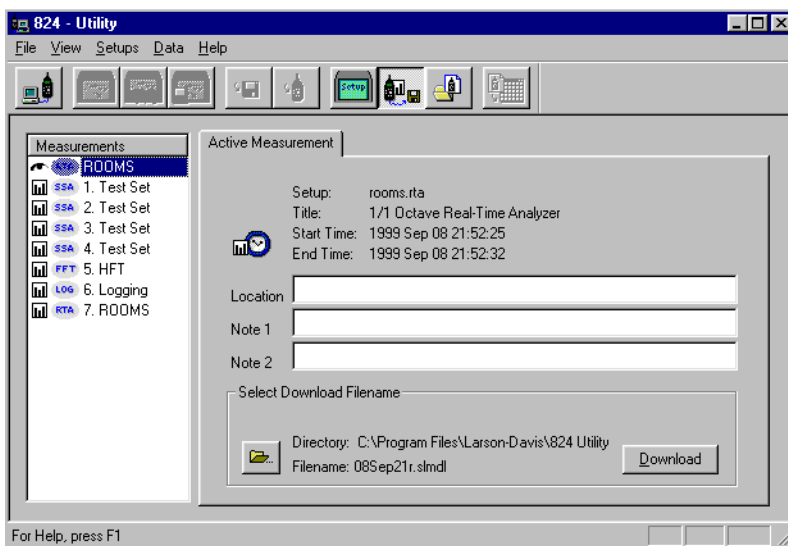
Downloading Measurement Data

The download section of the 824 Utility Software is the next section we will discuss.

To display measurement data stored in the 824, select **Download View** from the **View** menu or hit the Download View button from the tool bar.



All stored measurement information is retrieved from the 824 and displayed in the Download View window.

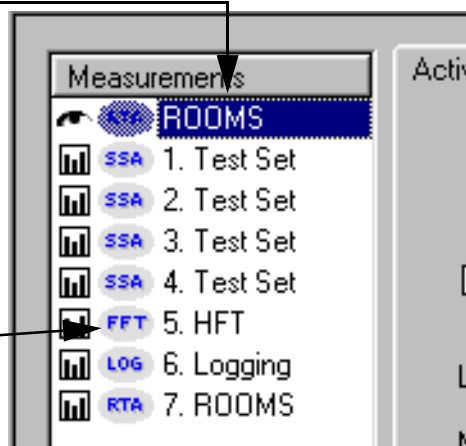


The first entry in the **Measurement** list box displays information about the active measurement currently in the 824. Following the active measurement is a list of all other Data Files stored in the 824.

The measurements are again identified the same way the setups were identified in the *Setup List Box* in the setup portion of the 824 Utility manual.

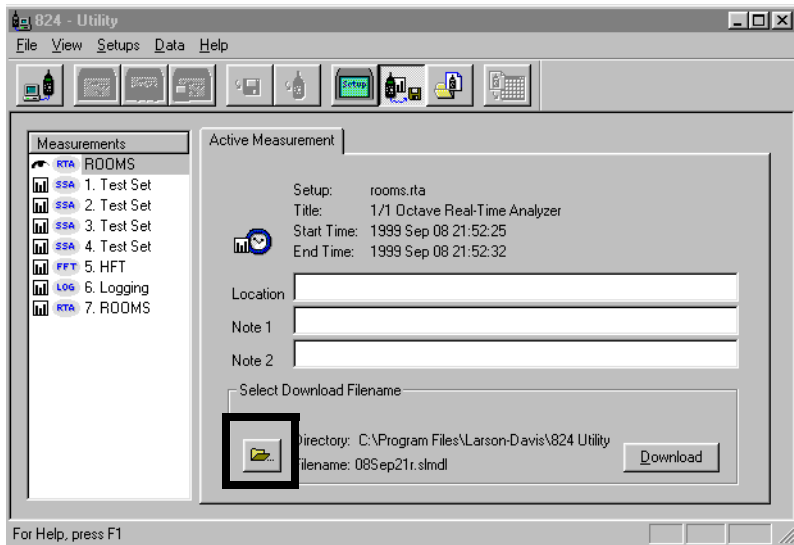
The title of the ID is listed in the right hand column. For the permanent ID's, this will be the Larson Davis instrument type. For a user defined ID, this can be anything that the user defines.

The three letter Larson Davis assigned name is listed in the blue Ovals. This indicates the type of instrument ID the setup was created in.



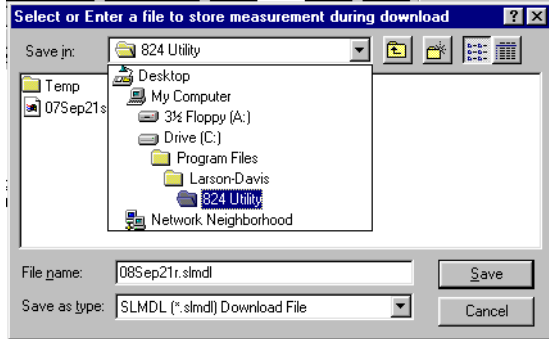
Specifying a Destination File

You can tell the 824 Utility program where you want the downloaded measurements to be stored. From the Download window, press the Browse button, next to the Directory entry.



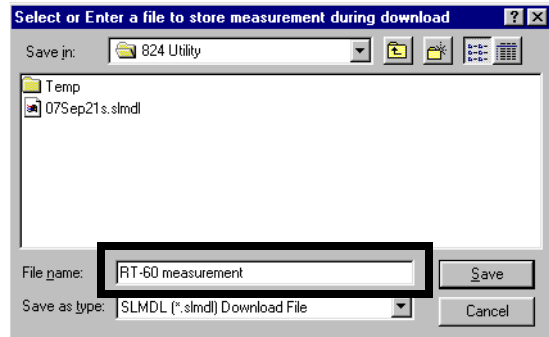
NOTE: The 824 Utility program will download the files with the date the file was taken as the file name as a default. It will also download to the 824 Utility Folder as a default. The option to specify a file name and destination folder is an optional selection, and is not necessary for download.

A standard Windows file selection dialog box will appear. Select the destination file you wish.



Changing the Download File Name

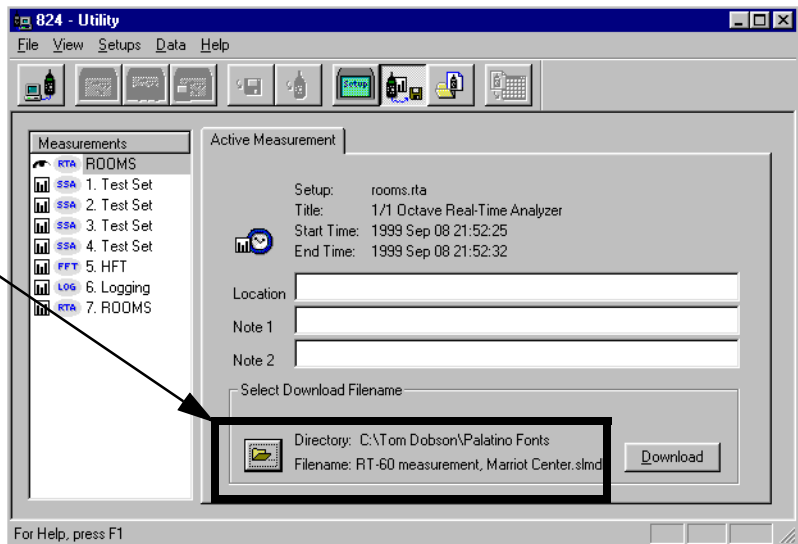
Enter a file name you wish to change the name of the downloaded file.



Press the Save button to return to the download section of the 824 Utility software.

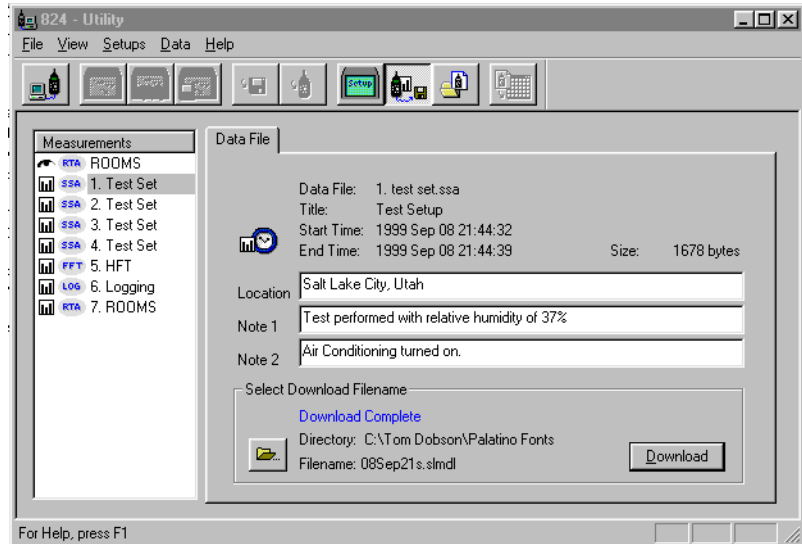
Our new file name and the path to the specified file now show on the download screen. These settings will only apply for the currently selected measurement.

NOTE: This process will have to be repeated for each measurement to be downloaded if you wish to specify a file name and destination folder.



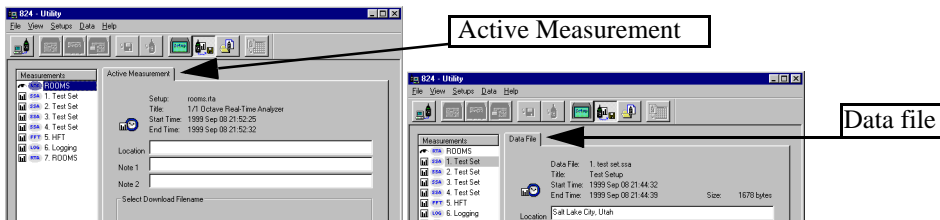
Adding Notes to a download file

Information can be entered into the note fields provided for each measurement. The information will be tagged onto the translated reports for each measurements.



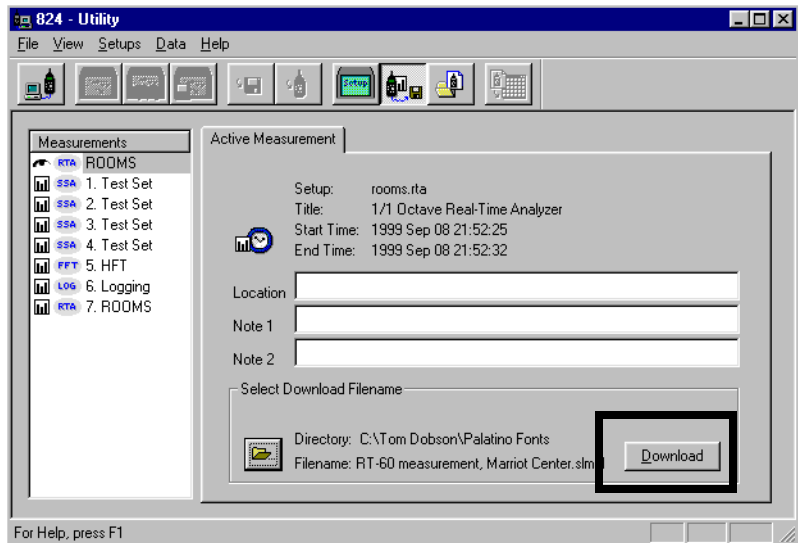
Selecting Active Measurements or Data Files

There are two types of measurements that can be downloaded. The first measurement in the list is the Active measurement, and is reported as Active Measurement on the tab of the download windows. The other measurements are stored as Data Files (on the 824), and will be reported as such on the tab of the download window.

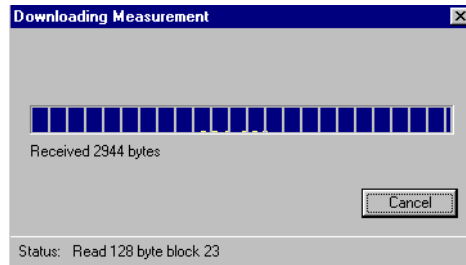


Downloading the measurement

To download a measurement, highlight the measurement in the Measurement list box and click the Download button.



The download status window will appear and report the status of the download.



The next file can now be selected, the destination folder specified, the file name entered, and the data downloaded.

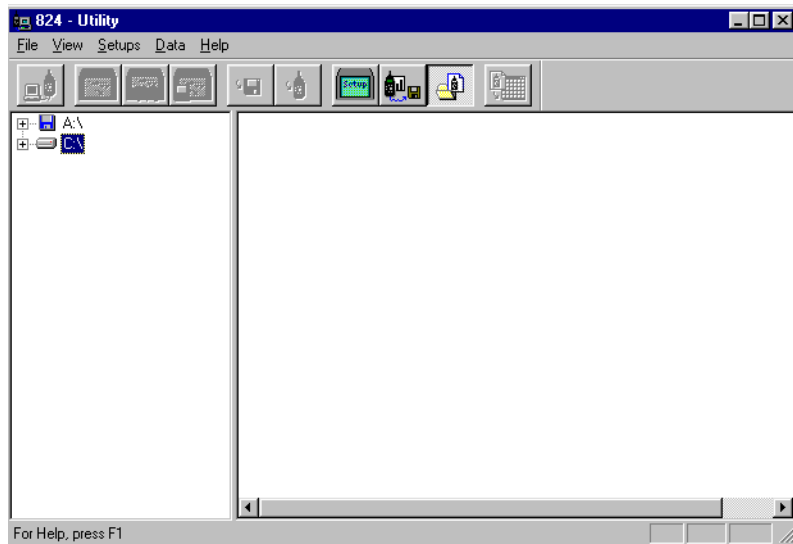
The resulting binary download file must be translated by the 824 utility software to be viewable. A downloaded file will be stored with the file extension slmdl (Sound Level Meter Down-load).

Translating Measurement Data from a Downloaded File

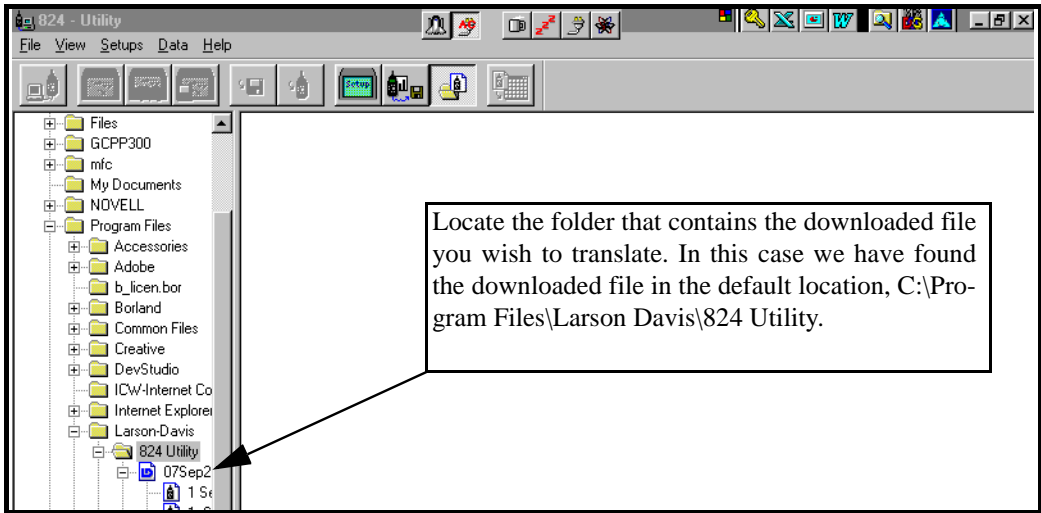
Selecting “Translate View” from the *View* Menu or pressing the Translate button on the tool bar will display the Translation View.



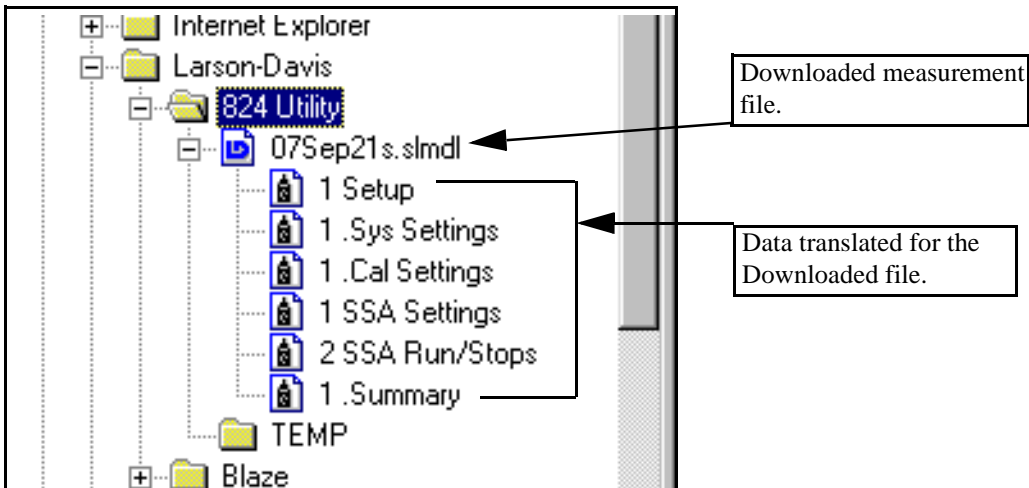
You use the *Translate view* to select a downloaded file with the file extension *.slmdl* to translate and view the file on the screen, or to print the file.



The right portion of the Translate window functions as a Windows file tree. Select the folder that contains the downloaded measurement files that you wish to translate.

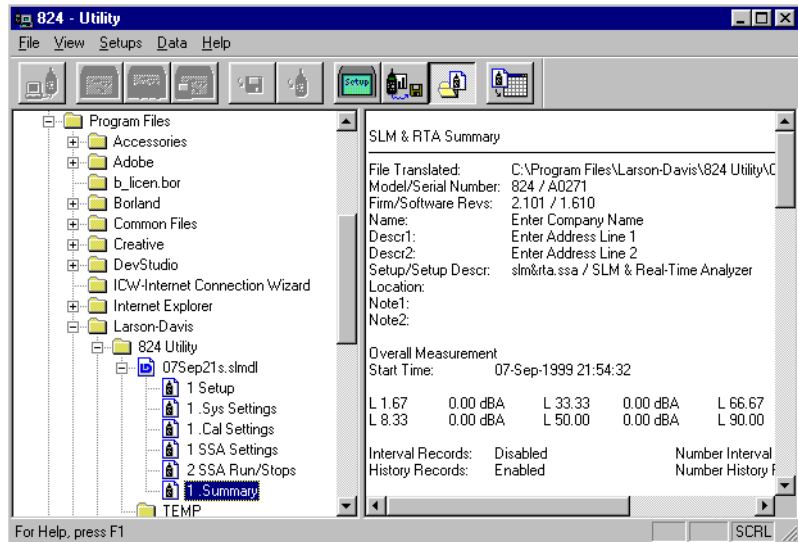


Each downloaded file will contain several records, depending on the type of setup used, and the data stored.



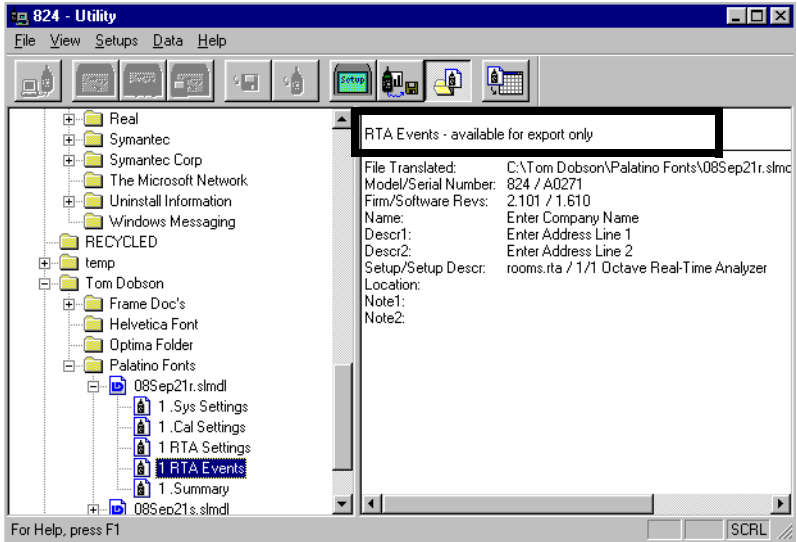
Selecting a Data set to view

After the downloaded file is located, double click on the data you wish to view.



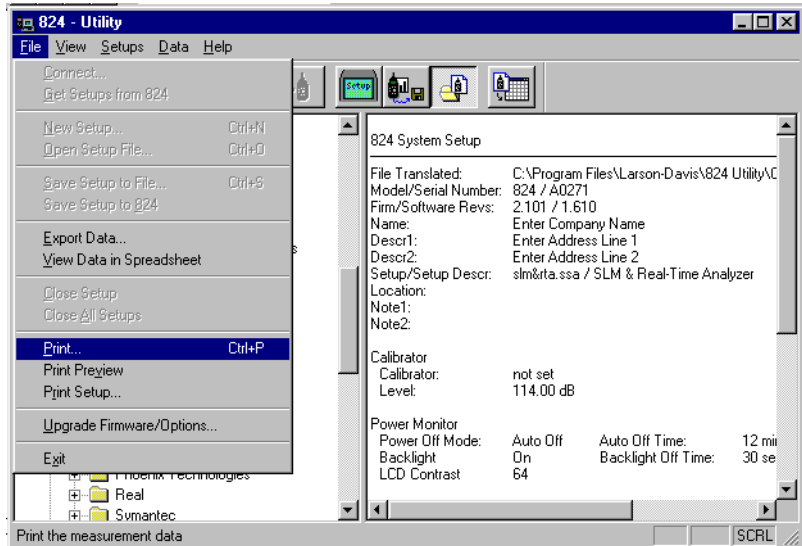
The data is displayed on the right side of the screen. If the data record is too large to be effectively displayed in that

area, a message will appear at the top of the displayed record indicating that it is available for export only.



Printing a Translated File

To print the translated data, select the file that you wish to print from the translate window . Display the file as described earlier. Select **Print** from the *File* menu.



The default Windows printer dialog box will be displayed.
 The report will be printed in a text format seen below.

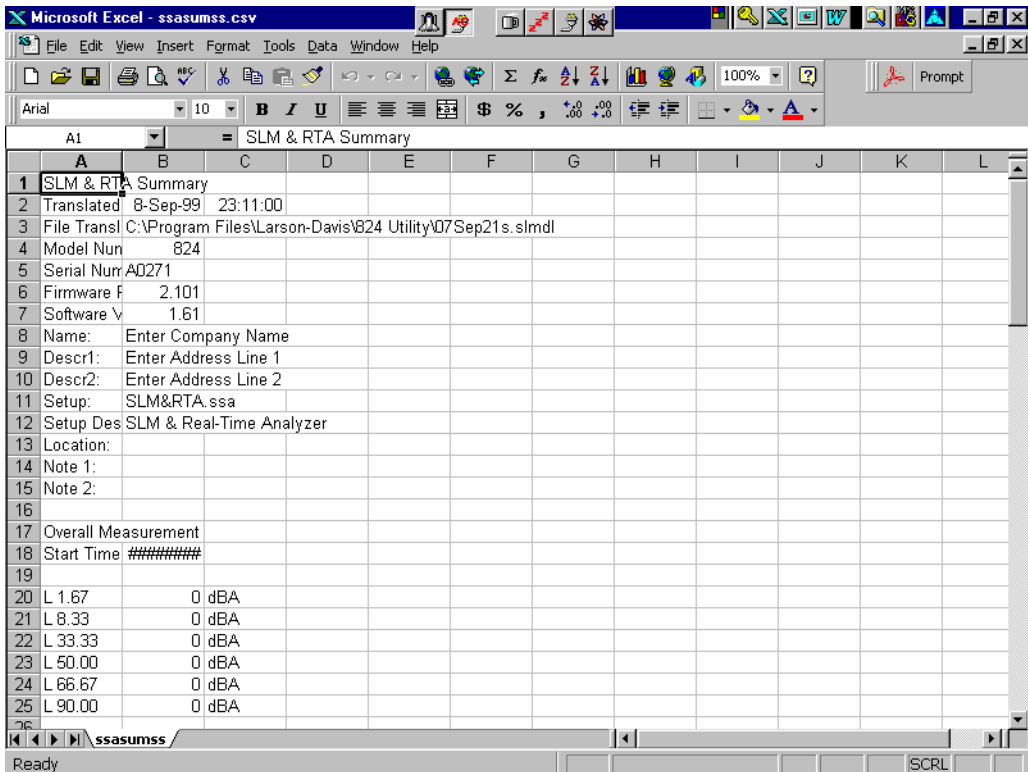
SLM & RTA Summary		09 Sep 1999, 08:42:55		Page 1															
File Translated:	C:\Program Files\Larsen-Davis\824 Utility\Data File 10.slm.dl																		
Model/Serial Number:	824 / A0120																		
Firmware/Software Revs:	2.007 / 1.610																		
Name:	Enter Company Name																		
Descr1:	Enter Address Line 1																		
Descr2:	Enter Address Line 2																		
Setup/Setup Descr:	slmrteta.ssa / SLM & Real-Time Analyzer																		
Location:																			
Note1:																			
Note2:																			
Overall Measurement																			
Start Time:	13-Jun-1999 00:33:08																		
L 0.00	0.00 dBA	L 0.00	0.00 dBA	L 0.00	0.00 dBA														
L 0.00	0.00 dBA	L 0.00	0.00 dBA	L 0.00	0.00 dBA														
Interval Records:	Enabled	Number Interval Records:	1																
History Records:	Enabled	Number History Records:	0																
Current Any Data																			
Start Time:	13-Jun-1999 00:33:08																		
Elapsed Time:	00:01:00.0																		
	A Weight	C Weight	Flat																
Leq:	56.20 dBA	71.10 dBC	73.10 dBF																
SEL:	74.00 dBA	88.90 dBC	90.90 dBF																
Peak:	72.00 dBA	85.80 dBC	87.50 dBF																
13-Jun-1999 00:33:34		13-Jun-1999 00:33:35	13-Jun-1999 00:34:07																
Lmax (slow):	60.90 dBA	74.40 dBC	75.60 dBF																
13-Jun-1999 00:33:35		13-Jun-1999 00:33:35	13-Jun-1999 00:33:54																
Lmin (slow):	50.30 dBA	66.60 dBC	69.40 dBF																
13-Jun-1999 00:33:12		13-Jun-1999 00:33:10	13-Jun-1999 00:33:08																
Lmax (fast):	61.90 dBA	76.00 dBC	78.10 dBF																
13-Jun-1999 00:33:33		13-Jun-1999 00:33:23	13-Jun-1999 00:34:07																
Lmin (fast):	49.80 dBA	65.80 dBC	68.30 dBF																
13-Jun-1999 00:33:12		13-Jun-1999 00:33:09	13-Jun-1999 00:33:14																
Lmax (impulse):	62.60 dBA	77.20 dBC	80.90 dBF																
13-Jun-1999 00:33:33		13-Jun-1999 00:34:07	13-Jun-1999 00:34:07																
Lmin (impulse):	50.50 dBA	66.70 dBC	69.80 dBF																
13-Jun-1999 00:33:11		13-Jun-1999 00:33:09	13-Jun-1999 00:33:08																
Spectrum																			
Date	Time	Run Time																	
13-Jun-1999	00:33:08	00:01:00.0																	
Freq	Hz	Leq	1/3dB	Leq	1/1dB	Max	1/3dB	Max	1/1dB	Freq	Hz	Leq	1/3dB	Leq	1/1dB	Max	1/3dB	Max	1/1dB
12.5	65.00			62.40						630	47.30			48.80					
16.0	70.40	71.86		67.50	69.57					800	43.40			45.80					
20.0	60.80			62.30						1000	44.30	48.21		46.40	50.01				
25.0	63.20			60.70						1250	42.40			42.70					
31.5	61.70	66.07		59.90	63.91					1600	35.40			37.90					
40.0	56.80			54.90						2000	30.90	37.25		32.50	39.39				
50.0	58.60			58.30						2500	27.90			28.70					
63.0	58.50	64.25		58.70	65.63					3150	26.70			27.20					
80.0	60.90			63.50						4000	27.20	31.22		26.80	30.97				
100	65.10			65.00						5000	25.20			23.90					
125	61.10	67.94		64.40	72.95					6300	21.60			18.90					
160	62.30			71.40						8000	22.20	26.89		20.00	24.78				
200	56.50			60.20						10000	22.50			20.90					
250	49.80	58.41		53.90	62.40					12500	22.40			17.30					
315	51.80			56.50						16000	25.20	29.22		23.30	26.74				
400	50.90			53.50						20000	25.20			23.10					
500	49.00	54.09		51.50	56.44														

Viewing a Translated File Within a Spreadsheet Program

To view the translated data with a spreadsheet program, select the **View Data in Spreadsheet** menu item from the **File** menu or the Launch Spreadsheet button on the tool bar.



When you select the **View Data in Spreadsheet** menu item, the 824 utility program will attempt to launch the program associated with the “.csv” file extension (comma separated variables). If you have installed a spreadsheet program, your Windows system will most likely have this file type linked to a spreadsheet program.



Once the data is in the spread sheet program it can be manipulated, stored, and graphed using the standard spreadsheet functions.

You can also export and/or save the translated data to a file, by selecting the *Export Data* menu item from the *File* menu.