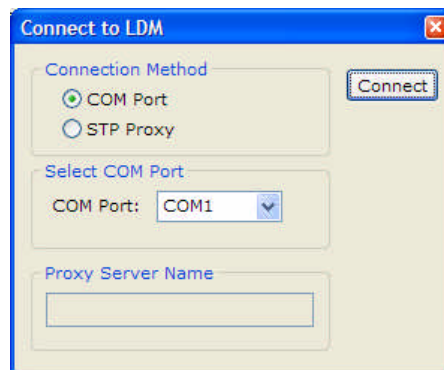


Monitor Tool Walkthrough

The Monitor tool allows the user to view the live status of the panel voltages and currents for the main breaker, branches and subfeeds including alarm status and historical event logs. To start the Flash tool, click on the Monitor icon:

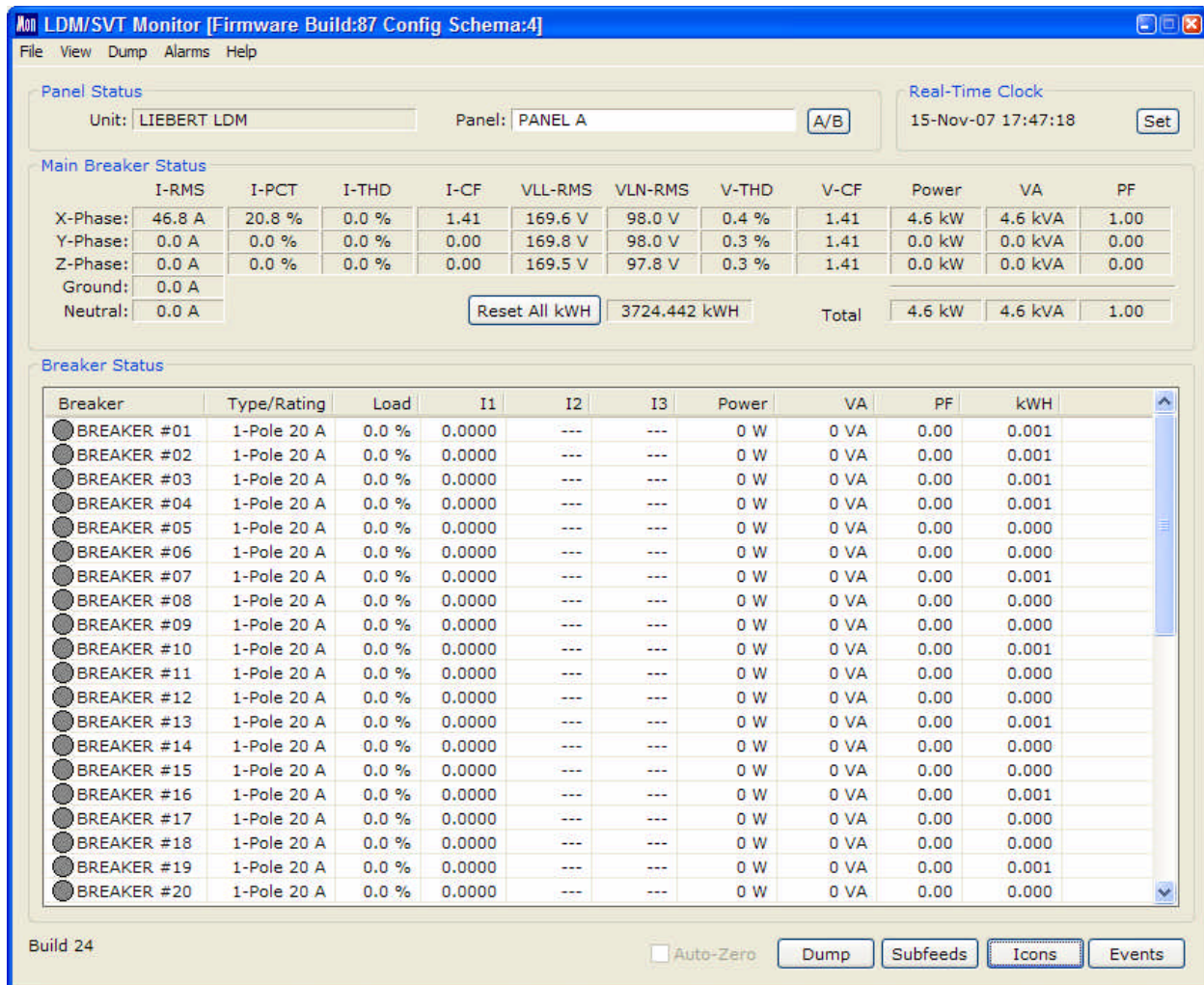


And it will bring up the connection dialog box. This dialog box allows you to select the serial port that connects to the LDM:



Make sure you select the "COM Port" radio button and then select the COM port from the drop down box. The program will only list COM ports that are currently installed on the computer you are using. After you've selected the COM port, click the "Connect" button.

If the COM port selection is valid, the proper cable is connected and the LDM is running, the system will download the configuration from the LDM and then display the main monitoring dialog, as shown below:



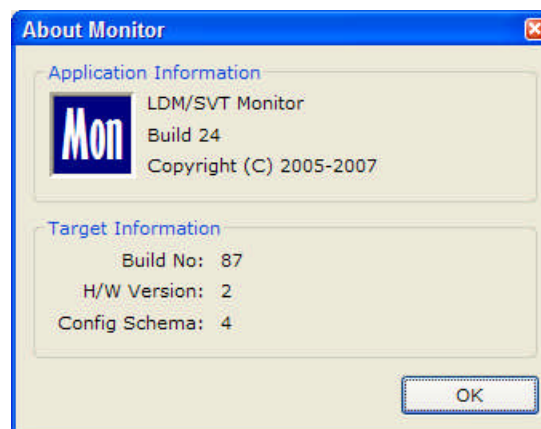
Here is a brief summary of the main features:

Main Menu

The main menu has five top-level menus: File, Configuration, View, Alarms and Help. Each of these is described below:

1. **File:** Contains one option, "Exit" which terminates the monitoring session and closes the program.
2. **View:** This menu contains three options which are listed below:
 - **Event Logs:** Switches displays dialog box containing lists of events, and allows the user to choose between the Panel A Log, the Panel B Log and the System Log. The user also has the option of clearing the selected log by pressing the "Clear Log" button.
 - **Breakers:** Updates the contents of the "Breaker Status" area to display the status of all the branch breakers for the selected panel.
 - **Subfeeds:** Updates the contents of the "Breaker Status" area to display the status of all the subfeed breakers for the selected panel.
3. **Dump:** This menu contains three options which are listed below:
 - **Readings:** Writes the current measurements for the mains, branches and subfeeds for both panels to a comma-separated variable (.csv) file.

- **Event Log:** Writes the contents of the event logs for both panels to a .csv file.
 - **Configuration:** Writes a human-readable description of the LDM configuration.
4. **Alarms:** This menu contains four options that control the display of alarms. The first three selections act as a group of “radio buttons” meaning that only one of them can be selected at a time. The method of displaying alarms is based on either the raw state, the filtered state or the latched state. Each of these states is described below:
- **Raw:** The raw alarm state is the instantaneous state of the alarm. It is not filtered and has no hysteresis. If you select Raw alarms, you will see the alarm active whenever the latest reading exceeds the set-point, and cleared as soon as the reading falls within the set-point range.
 - **Filtered:** The filtered alarm uses the hysteresis interval to suppress transient alarms. Filtered alarms, however, will clear after the alarm condition has cleared for longer than the hysteresis interval.
 - **Latched:** Latched alarms behave like filtered alarms that get stuck on. They stay active until the alarm is manually cleared.
 - **Clear All:** This option clears all latched alarms for the selected panel. Any alarm conditions that are still active will cause the alarms to latch again after the hysteresis interval passes.
5. **Help:** The help menu contains only one option, “About”. Selecting this option displays the “About Box” as shown below:



Panel Status

The “Panel Status” area displays the LDM unit name in the “Unit” field and identifies the currently-selected panel in the “Panel” field. The user can toggle between panels by clicking on the panel name or by clicking the “A/B” button.

If there are any alarms active on the selected panel, the panel name will be displayed white text on a red background; otherwise the text is displayed normally.

Real-Time Clock

The “Real-Time Clock” area shows a live display of the time stored on the LDM unit. The LDM stores the time and date as UTC (GMT) time. Therefore, it is important that the PC’s time zone be set properly in order to display the correct local time. If the displayed time is incorrect and it is not caused by a time-zone configuration problem, the user can re-set the LDM’s real-time clock by clicking the “Set” button.

Main Breaker Status

The “Main Breaker Status” area displays the RMS current, percent load, total harmonic distortion (THD), crest factor (CF), line-to-line voltage (VLL), line-to-neutral voltage (VLN), instantaneous power, VA and power factor (PF) for each input phase. If any phase voltage or current is in alarm, the associated field will display as white text on a red background.

The metered energy usage for the panel is also displayed in kilo-watt hours (kWH). The program provides an option to clear all metering information by pressing the “Reset All kWH” button.

CAUTION: *The “Reset All kWH” button should only be used with the full awareness that it will reset the kWH usage for the main breaker as well as every branch breaker and subfeed breaker on the panel.*

Breaker Status

The “Breaker Status” area displays the detailed status for every Branch or Subfeed breaker on the selected panel. The display is either in a tabular format or an icon format. The tabular format consists of columns displaying the rating of each breaker, the percent load, the individual phase currents (in amps), the true power, the apparent power, the power factor and accumulated kWhs.

The icon view shows the status of each breaker as either being off, in a normal range or in an alarm condition.

Mode Buttons

The mode buttons allow the user to control the use of the “Auto-Zero” function, to toggle between branch and subfeed breakers, to toggle between icon and table views and to display event logs.

The “Auto-Zero” checkbox controls whether the LDM zeroes out current and voltage readings below a certain threshold. Checking the box turns the feature on, un-checking it turns auto-zero off. Auto-zero works just like a squelch control to eliminate low-level noise in the measurements.

The “Subfeeds/Breakers” button toggles between the subfeed display and the branch breaker display and the “Icons/Table” button toggles between the tabular view and the icon view.

The “Events” button displays the Event Log dialog box.