

GT-View Rev. 1.7.0

User's Guide

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Using GT-View

This guide contains information and procedures to configure and operate GT-View, a PC application for monitoring the Xantrex GT Solar Inverter.

System Requirements

The following is required to install and use GT-View:

- A PC running Windows XP or higher
- A straight-through Serial RS-232 cable
- An operational Xantrex GT Inverter

GT-View has been validated on various computers and operating systems. In most configurations the system speed, memory size, and background programs have not affected the performance of the GT-View product.

For 100% reliable operation a personal computer with the following features is strongly recommend:

- Pentium CPU type 3 or newer, 1 GHz minimum
- 256 MB of system memory
- No other user programs active or operating
- No background applications such as anti-virus programs

Variations from the recommended system may affect the timing of the communication between the PC and GT Inverter and cause the program to not display data properly.

Starting GT-View

Upon starting the application GT-View, the main GT-View display screen appears.

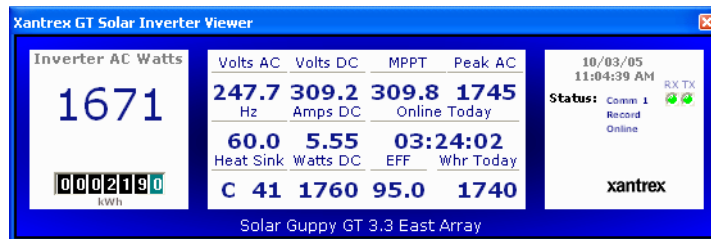
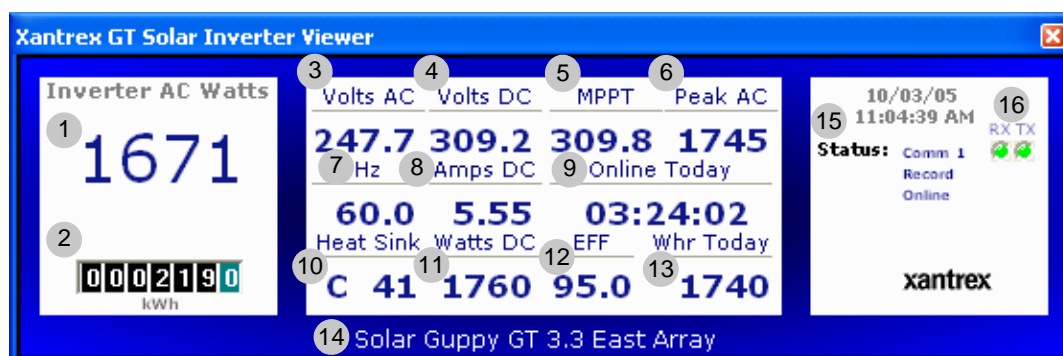


Figure 1-1 Main GT-View screen

If your computer's Comm. 1 port is what is chosen and your PC is properly connected to a GT Inverter via an RS-232 connector, data will be displayed.

If the display shows no operational data, then either the PC is not connected or the comm. port selected needs to be changed to match the installation on your PC.

Reading the GT-View Main Screen



Number	Function
1	AC Watts, instantaneous power output
2	Lifetime energy produced, 100 watt resolution
3	Volts AC, input AC line voltage
4	Volts DC, input DC volts from PV array
5	MPPT, calculated maximum power track voltage
6	Peak AC Watts, peak AC watts produced for the day
7	HZ, AC line frequency
8	Amps DC, input DC amps from PV array
9	Time Online, seconds inverter has produced energy today
10	Heat Sink, measured temperature of inverter heat sink
11	Watts DC , calculated instantaneous PV supplied energy
12	Efficiency, calculated efficiency of inverter. Value will increase in error in fast changing conditions. In stable conditions will display within the inverter's 1% measurement tolerances.
13	Watt Hours Today , total energy produced today, in watt hours
14	User text message #1 (if display is enabled)
15	Unit Status: <ul style="list-style-type: none"> • Comm. X, PC RS-232 port selected • Record, indicates disk logging is enabled • Online/Offline, indicates if inverter has DC power and connected to GT-View • FTP ERR, indicates an FTP operation failed
16	RS-232 Line Status, indicating Transmit and Receive line activity. To show or hide this option, see "RS-232 Line Status" on page 6.

Selecting GT-View Options

In addition to the information provided on the main display screen, GT-View offers four operation options. To select an option, right click anywhere in the GT-View display screen and choose **Settings**, **Support**, **Minimize** or **Help**.

- **Settings**—used for configuring and selecting the GT-View’s functions
- **Support**—displays information about contacting Xantrex for service or questions as well as information specific to the GT Inverter connected to the PC running GT-View
- **Minimize**—Minimizes the GT-View display screen
- **Help**—displays the GT-View software revision and the Support Forum Web link.

The following provides detailed information of the Settings, Support, Minimize and Help menu options.

Using the Settings Menu

The screenshot shows the 'GT View Options' dialog box with the following settings:

- System Options:** Comm Port: 1 (selected), 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16. Fast Logging PC.
- Screen Options:** Super Size Display, Show System Totals, Show Clock, Temperature Celsius, Backlight On, Scroll LCD Display, RS232 Line Status, Scroll Interval: 6, Screen Update Rate (seconds): 4.
- Logging Options:** Disk Recording On, Send Log via FTP, Write To Disk Interval (sec): 10, Update Totals Log At: 11:59:00 PM, <- Press for Log, <- File Path.
- User Message:** Screen Message 1: Solar Guppy GT, 3.3 East Array, Screen Message 2: (empty), On PC Screen.
- WEB Options:** Png Screen Save, Send Png via FTP, FTP Debug Window, Png To Disk/FTP Rate (seconds): 60, <- Press for Png, <- File Path.
- User FTP information:** User: my login ID, Password: (masked), Address: ftp.mysite.com, Remote Dir: /htdocs/downloads.

Buttons at the bottom: Save, Cancel.

The Settings menu is grouped into six blocks:

1. System Options (see page 1–5)
2. Screen Options (see page 1–5)
3. Logging Options (see page 1–7)
4. User Message (see page 1–8)
5. Web Options (see page 1–8)
6. User FTP Information (see page 1–9)

System Options

GT-View has two System Options.

Comm. Port This is the communications port to which GT-View will be assigned. Check next to the number that corresponds to the location the cable is plugged into.

Fast Logging PC When the Fast Logging PC box is checked, data can be viewed as fast as a one second interval. Polling the inverter at this rate requires a dedicated PC of 1 GHz or better and is useful for detailed system performance analysis. If you do not require this level of detail, de-select this option and maximum polling is now two seconds. Running GT-View in this mode will allow other activities or possibly a dedicated but slower computer to be used for data logging.

Screen Options

GT-View has nine screen options.

Super Size Display GT-View has two user selected screen sizes. The default size is 557 by 185 pixels. When Super Size Display is selected, the displayed view increases to 795 by 238 pixels.

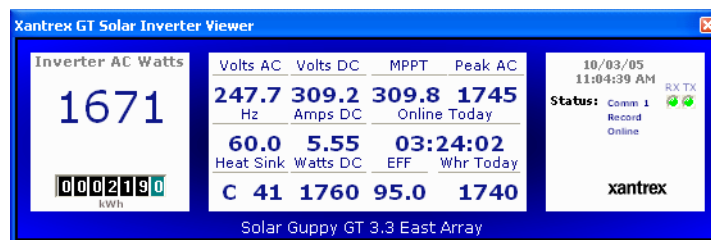


Figure 1-2 Default Display

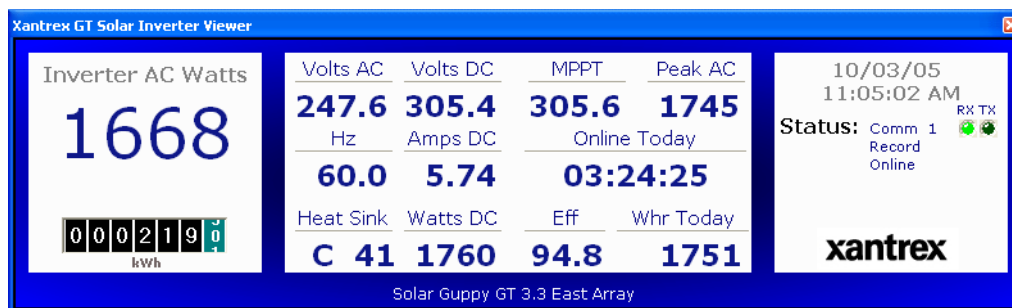


Figure 1-3 Super Size Display

Note: Using Super Size can make working with other applications difficult. If GT-View has been configured to upload via FTP, this file will be larger and require more Internet bandwidth.

Show System Totals The GT-View for Show System displays single inverter operational data. If the GT is connected to other GT Inverters via Xanbus, GT-View can optionally display the combined output of the connected inverters.

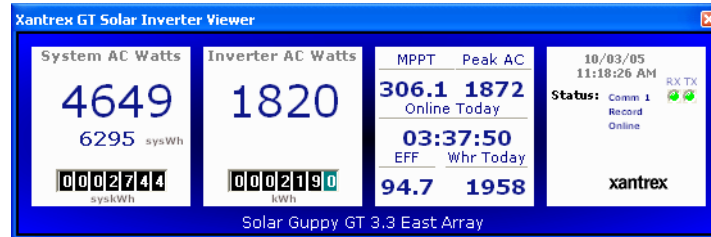


Figure 1-4 System Totals Example

Show Clock By default, the PC reported date and time are displayed in the upper right corner of the GT-View display. This is especially helpful when using the FTP option to upload the screen PNG file as it will capture the date/time of the operational values.

By deselecting this option, no date/time is displayed.

Temperature Celsius When GT-View is in the non-system display mode, the GT Inverter's reported temperature is displayed. The value can be in either Celsius or Fahrenheit.

Backlight On The GT Inverter backlight is normally off, only coming on when the LCD is physically knocked. If this option is checked, the Inverters LCD backlight will remain on, for as long as GT-View is connected and operating.

Scroll LCD The GT Inverter LCD is normally displaying a single screen of information, which can be scrolled by tapping the logo near the GT LCD. By selecting this option, the LCD will scroll thru the inverter's informational displays in sequence without the need for a user to tap near the LCD.

RS-232 Line Status When selected, GT-View displays the RS-232 Line Status. The simulated LEDs indicate activity on the Transmit (TX) and Receive (RX) lines on the RS-232 cable connected between the GT Inverter and the PC running GT-View. During normal operation, both LEDs will blink. If only the TX LED is on, the PC is sending commands but not receiving data.

Scroll Interval When the Scroll LCD option is selected, you can enter the desired interval in seconds between one LCD screen to the next.

Screen Update Rate The GT-View display on the PC screen can be selected to update the operational values at a slower rate than the rate GT-View is gathering data from the GT Inverter. Any value larger than the minimum allowed value (1 second past PC mode, otherwise 2 seconds) will display average data. Online Today and System Clock are not affected by these options.

Logging Options

GT-View has five logging options.

Disk Recording On When this option is selected, GT-View will record the all operational information to the selected destination (FTP or write-to-disk). GT-View will also append a totals file for running daily totals summary.


Data is only sent to the disk files when the GT Inverter is operational (online). This allows automatic data collection. The File name is appended with the date so GT-View will automatically change the file name daily (change is at 12:00 am, PC local time).

Send Log via FTP If selected, GT-View will send the current disk log to a remote location. At the time selected by the “Update Totals Log At,” the GT-View will send the log file via FTP.

Write to Disk Interval The GT-View disk recording rate can be selected to update the operational values at a value independent of the on-screen display. This rate is any value larger than the minimum allowed value (one second past PC mode, otherwise two seconds).

Disk Values are NOT averaged. If a rate of less than the maximum is selected, the entries in the disk log will be data for the entire time period, not the averaged values between the previous and current time period.

Update Totals Log At GT-View creates two files: a new daily log file and a totals log file, which is created at the time entered. In an un-attended system, this allows both a summary of daily production as well as individual files of the daily performance data.

Disk Log File Path By clicking on the folder icon , a standard Windows dialog box appears. Browse and select the folder that you would like the data and totals log files to be stored in.

Note: GT-View will automatically append the current date to the file name chosen. This allows automatic data collection with each day’s data to be stored in a separate, easily identifiable file.

User Message

GT-View can program and display the GT Inverter's User Message text. The User Message text is displayed in the GT Inverter's LCD as the final two screens of information when using the "knock" feature.

Screen Message 1 can also be displayed on the bottom of the GT-View window.

GT-View can be configured to scroll the GT Inverter's LCD display screens, so that the User Message will automatically be displayed (see "Scroll LCD" on page 1-6).

Screen Message 1 and 2 Each of the two screen messages is a maximum of 16 characters in length and two lines in height.

On PC Screen When selected, Screen Message 1 will be displayed on the bottom of the GT-View window in a single line. In multi-inverter environments, these can be used to match GT-View windows with the appropriate inverter.

Web Options

GT-View uses a simple approach for supporting data monitoring via the Internet. When enabled, GT-View takes a screen capture of the active GT-View display on PC's main window. This PNG graphic file can be directly referenced if there is a local server. If a local server is not available, GT-View can be configured to upload the PNG file to any internet location world-wide that is FTP accessible.

GT-View can also upload automatically via FTP with the data log produced daily.

PNG Screen Save When selected, GT-View will screen capture the active GT-View window. Because GT-View creates a "snapshot" of the viewing area, if the GT-View screen is hidden by another application, if it is minimized, or if a screen saver is functioning, inverter data will not be captured.

As long as the GT-View window is open and visible it will be captured in the PNG graphic file.

Send PNG via FTP If selected, GT-View will upload the PNG file using the FTP protocol. The site and login information for all FTP operations is configured using the FTP User Window.

FTP Debug Window Selecting this option and clicking OK enables you to view the FTP Messages window (see Figure 1-5).

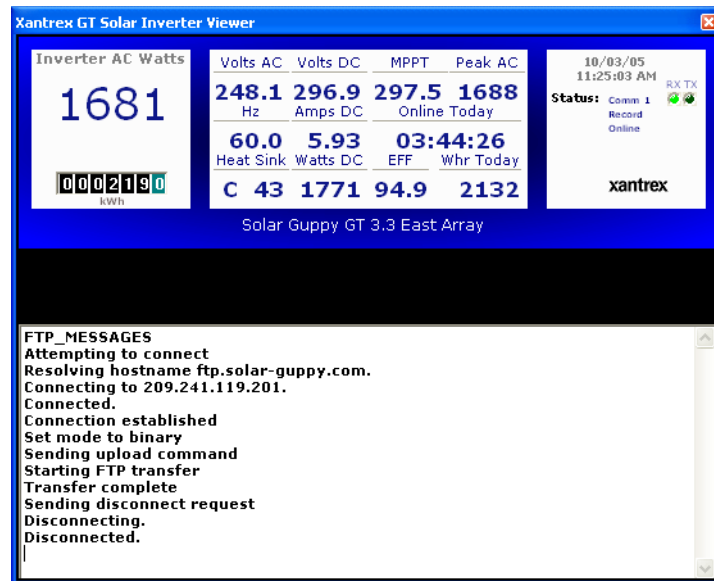



Figure 1-5 FTP Messages Window

For initial configurations or for failed FTP transactions, it may be necessary to watch the actual commands being issued to understand why there is an FTP ERROR being flagged. The site, user login information and directory will be unique for each end user and must be configured as the site your accessing requires.

PNG to Disk/FTP Rate (seconds) The upload speed, measured in seconds. It is important to note that FTP response times vary depending on the connection and the Internet Service Provider.

PNG File Path By clicking on the folder icon , a standard Windows dialog box appears. Browse and select the folder that you would like the PNG files to be stored in.

User FTP Information

User This is your assigned FTP server user account name.

Password This is your assigned user account password for logging into the FTP server.

Address This is either the domain name or IP address you have been provided for logging into the FTP server. For example `www.solar-guppy.com` or `63.241.136.206` would point to the same server.

Remote Directory When logged in, you may want to put the PNG or Log file in a folder other than the main account folder. If, for example, you have a folder/directory called “downloads,” then simply enter “downloads.” GT-View will use the text in this window for the directory name.

Viewing the Support Screen

To view GT Inverter support information, right click the main GT-View display screen and select **Support**. The Inverter Support Options screen appears.

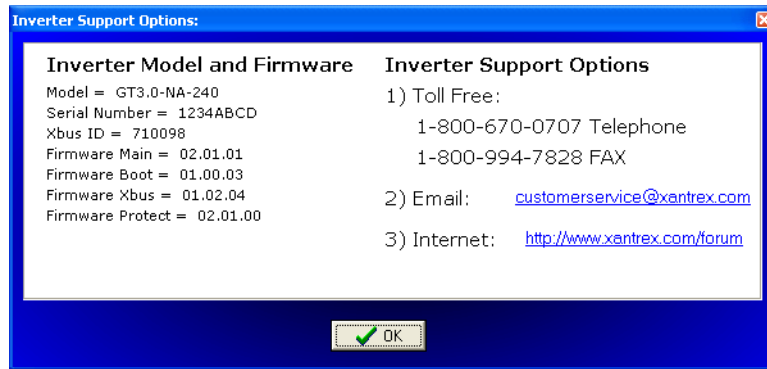


Figure 1-6 Inverter Support Options screen

Inverter Model and Firmware The information displayed may be useful and or requested when contacting Xantrex with service or performance issues. The fields display the internal software revisions as well as the unit's serial number. This information is for informational purposes only and cannot be modified.

Inverter Support Options Xantrex provides a toll free 800 number for purchasers of its products. In addition, Xantrex monitors and responds to requests via e-mail. Xantrex also has an online user forum (**www.xantrex.com/forum**) where anyone can read and ask questions relating to Xantrex products. Customer service is available Monday through Friday from 7 a.m. to 5 p.m. PST.

Minimizing the GT-View Screen

To minimize GT-View, right click the main GT-View display screen and select **Minimize**.

When GT-View is minimized, a small status window will be displayed on the Windows Task Bar. GT-View will at first display the program name “Xantrex GT-View” and then display either Current AC watts production or the current AC watts for all the interconnected GT Inverters.

Viewing the Help Screen

To view the GT-View program revision and the Support Forum Web link, right click the main GT-View display screen and select **Help**.

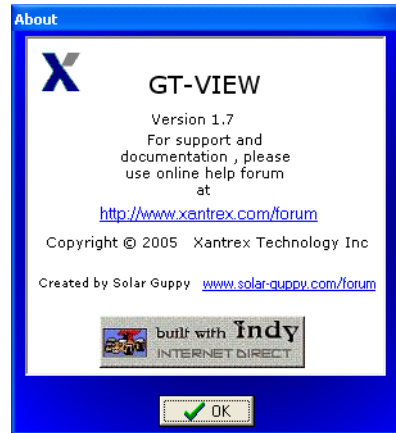


Figure 1-7 GT-View About screen

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