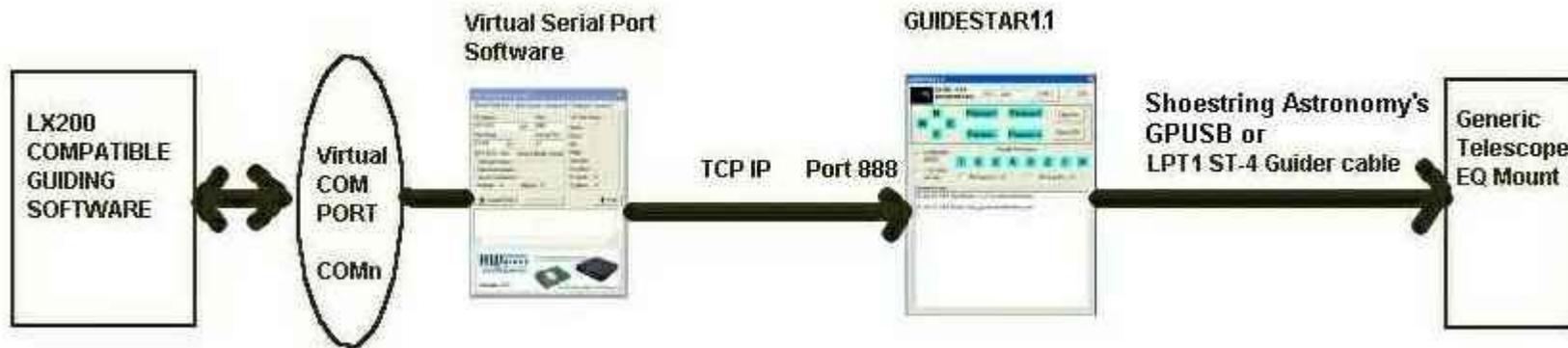


*GUIDE STAR Manual*

keywords: autoguiding autoguider software based lx200 emulator dsi lpi envisage

## GUIDESTAR Version 1.1

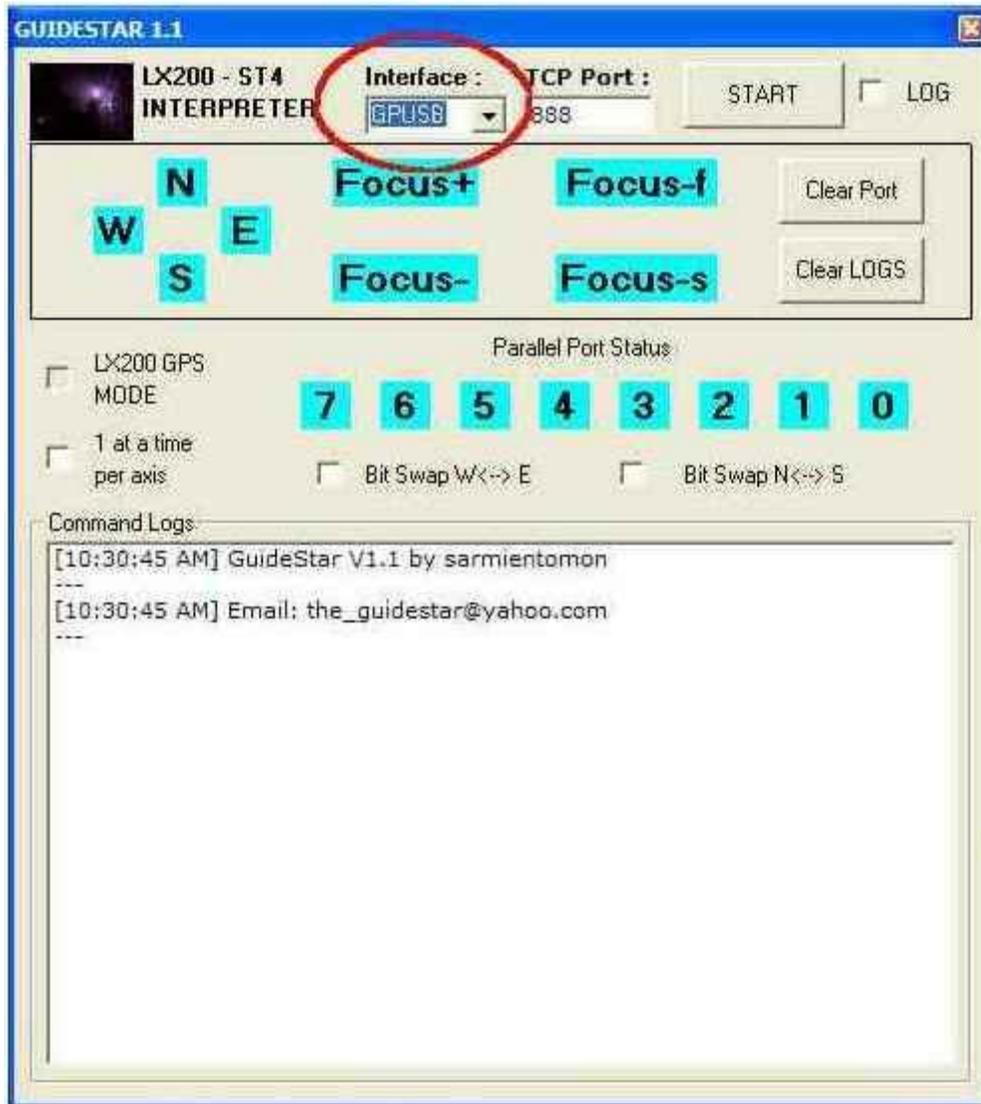
GUIDESTAR Version 1.1 is an upgrade of GUIDESTAR 1.0 with the addition of [Shoestring Astronomy's GPUSB/GPINT-PT support](#). Aside from the standard printer port interface (LPT1 to LPT3), it is now possible to guide your ST4 compatible mount using USB. For the other details refer to the GuideStar 1.0 manual below;



Download new version at:

[http://www.freewebs.com/the\\_guidestar/GUIDESTAR11.zip](http://www.freewebs.com/the_guidestar/GUIDESTAR11.zip)

To select between GPUSB and the printer port, just select the interface type prior to clicking the start button. If you wish to guide using USB, make sure GPUSB is connected to the PC's USB port prior to executing the software.



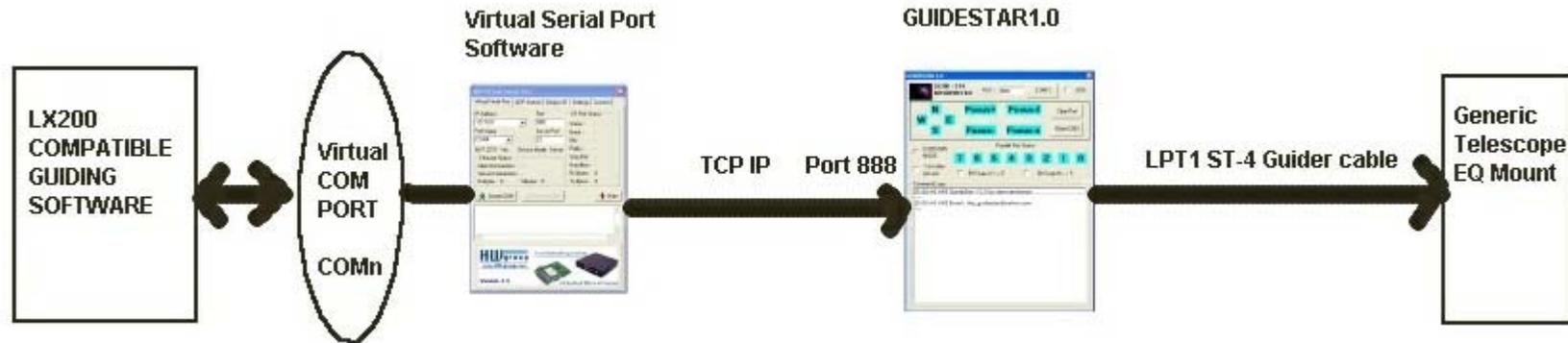
GUIDESTAR Version 1.0

Guidestar 1.0 is an application that emulates the LX200 Guiding/Focus Protocol commands and transform them to Printer Parallel Port LPT1 (&H378) bit on/off commands for

use with mounts with ST-4 compatible Autoguiding ports. For mounts without an autoguiding port, a set of Relay drivers connected to the Data pins of the Parallel Port can be used to drive the mount paddle's RA/DEC switches.

With the help of a 3rd party freeware software (HW-Groups's HW Virtual Serial Port), the Guidestar application reads LX200 command data from a VIRTUAL Serial Port, interprets the data, and converts the data to printer port guiding commands. Any LX200 compatible software with autoguiding support can now connect to the virtual serial port as if it is communicating to a LX200 compatible scope. Users with the printer port ST-4 compatible interface cable can now command any connected mount with LX200 compatible autoguiding commands without the need for additional external hardware.

Diagram:



Download links:

[http://www.geocities.com/the\\_guidestar/GUIDESTAR10.zip](http://www.geocities.com/the_guidestar/GUIDESTAR10.zip)

<http://www.geocities.com/sarmientomon/GUIDESTAR10.zip>

\* Note each link above allows only 1 to 2 downloads at a time per hour. If it fails, you will have to wait for the next hour.

Here is another link as posted by the Admin of Deep-Sky-Imager yahoo group:

<http://www.skyinsight.com/GUIDESTAR10.zip>

The admin was kind enough to post the app on the [SkyInsight](http://www.skyinsight.com) site.

How to Use:

Setup:

1. Extract the zip file to a temporary directory and run Setup.exe. The setup application will then extract the files and create a shortcut "GuideStar10" at Windows' "Start - Programs".
2. Download the HW Group virtual serial port freeware program zip file at

[http://www.hw-group.com/products/hw\\_vsp/index\\_en.html](http://www.hw-group.com/products/hw_vsp/index_en.html)

Extract the zip file and install the Virtual Serial port application

Running the Program

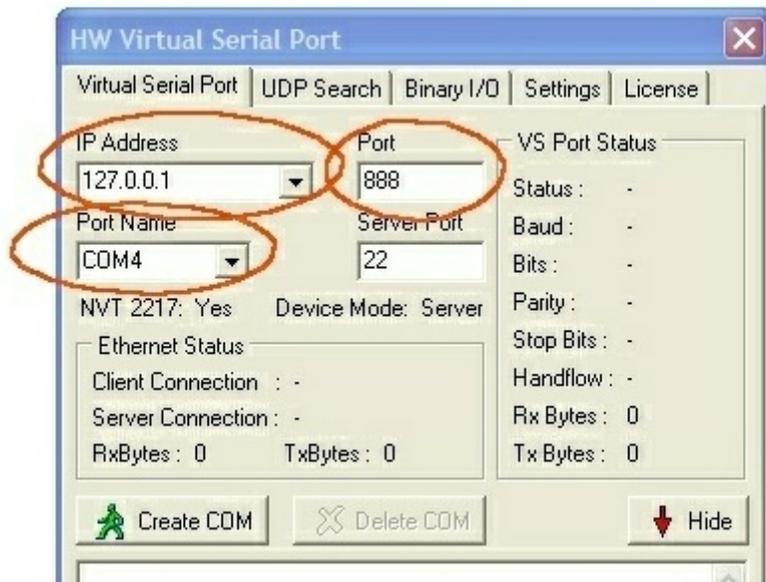
1. Double Click on the HW Virtual Serial Port program shortcut and define the TCP IP parameters: and the Serial COM Port ID that you will be using to create the virtual serial port

Suggested Settings

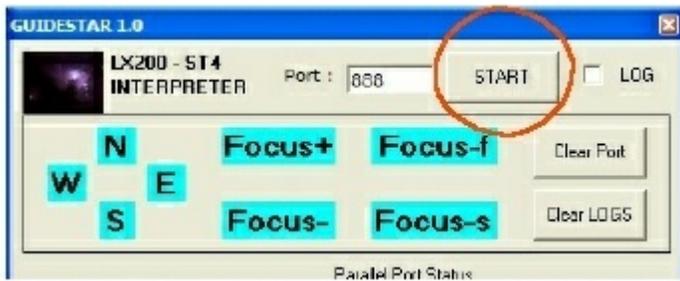
IP Address: 127.0.0.0

Port : 888

Portname : Any unused port between COM1 to COM4

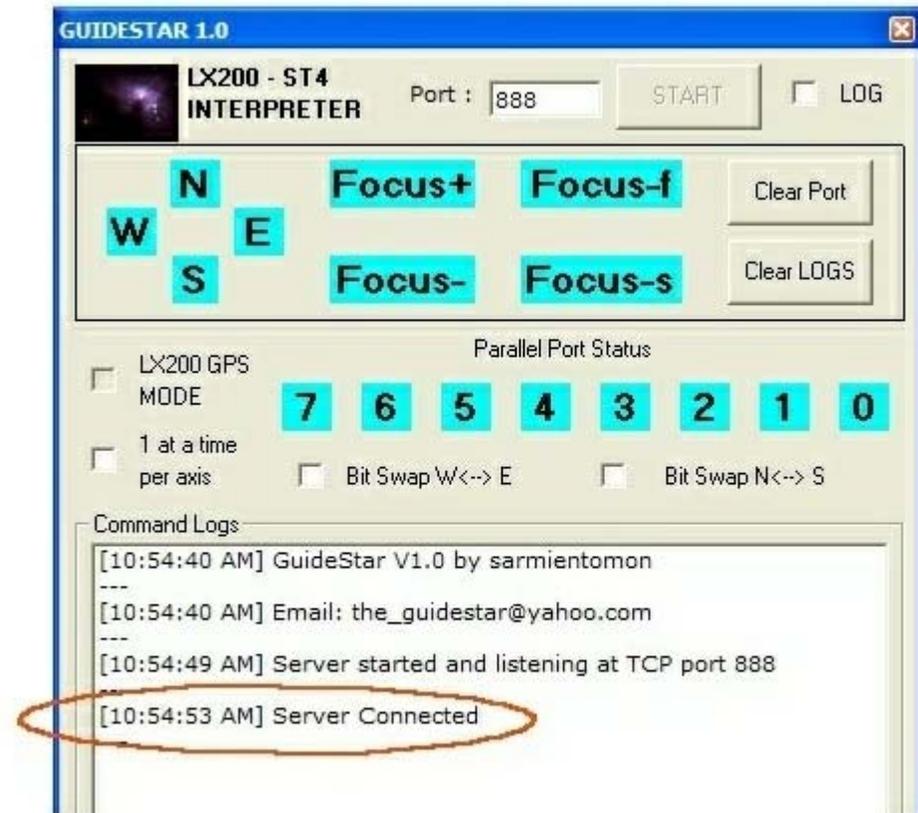
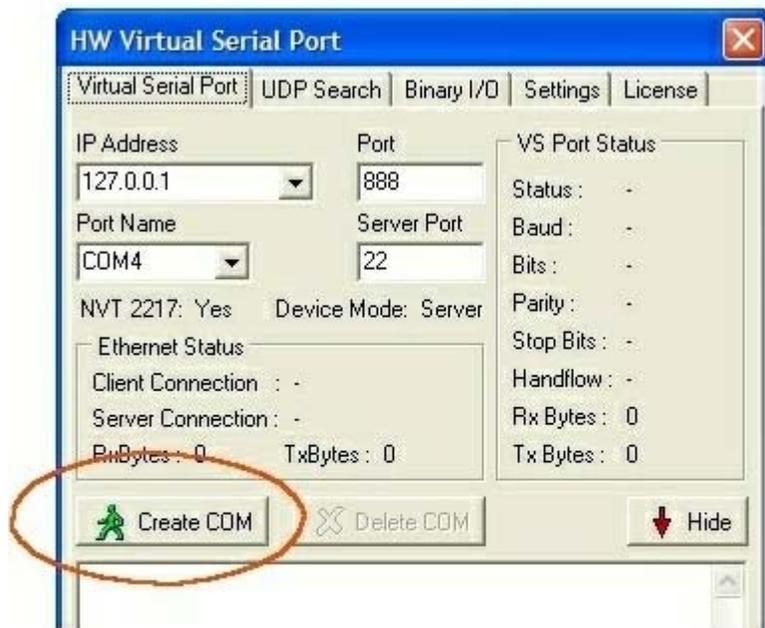


2. Execute the GUIDESTAR10 application and define the TCP port address (use 888 as default).
  - \* Make sure the port value on the GuideStar application is the same as the IP address port value on the HW Virtual Serial Port. Currently set at TCP Port 888.
  - \* You also need to confirm if the TCP/IP drivers of windows are installed.
3. Click the 'START' button on the GUIDESTAR10 application. At this point, Guidestar will start listening for LX200 commands at the local host ip address 127.0.0.0 port 888



4. Create the Virtual COM port by clicking the button on the HW Virtual Serial Port. If everything is ok, the HW Virtual serial port will attempt to connect via TCP to Guidestar based on the defined IP address and TCP port (IP 127.0.0.1 port 888)

GuideStar should display "Server connected" if the TCP connection is established. Sometimes the HW Virtual serial port program displays an error if for example the COM port name of the virtual serial port is existing or has an identical name defined on one of the existing physical COM port of the PC. In this case, try changing the COM port name to an unused one and click on the "Creat COM" button.



5. If everything is OK, you can now execute any LX200 guiding application such as the Meade's Envisage Software, Guidedog, Startrack, etc.. You should connect the autoguiding software to the defined Virtual COM port previously defined in the HW group's software.

Parallel Port Specs:

hardcoded to address &H378

Bit Definition

- Bit 7 - South (north if swapped)
- Bit 6 - North (south if swapped)
- Bit 5 - West (east if swapped)
- Bit 4 - East (west if swapped)
- Bit 3 - Focus Low voltage
- Bit 2 - Focus High voltage
- Bit 1 - Focus Down
- Bit 0 - Focus Up

\* Use appropriate Relay Drivers / Optical Isolators when connecting the PC parallel port to your system

Improvements:

Improvements are currently underway;

1. Support for LX200GPS Guide commands
2. GOTO command translations
3. Built in Virtual COM Port routines (without having to use a 3rd party application).
4. Other requests (send email to [the\\_guidestar@yahoo.com](mailto:the_guidestar@yahoo.com))

Donations of any amount are also welcome. I am planning to donate a significant portion of the proceeds to a local TV station here that handles charity work for street children.

Send to:

VIA paypal (using friend's paypal account)

[mru@visiontradingusa.com](mailto:mru@visiontradingusa.com)

Please send an email to [the\\_guidestar@yahoo.com](mailto:the_guidestar@yahoo.com) when a donation is made.

DISCLAIMER:

You can use this program COMPLETELY AT YOUR OWN RISK. The GuideStar software is provided to you "AS IS" and WITHOUT WARRANTY OF ANY KIND, express, statutory, implied or otherwise, including without limitation any warranty of merchantability or fitness for any particular or intended purpose. In no event will I (sarmientomon) be liable for any direct, indirect, punitive, special, incidental or consequential damages or loss of any kind whether or not author (sarmientomon) has been advised of the possibility of such loss.

 Visits

© 2005 All Rights Reserved.

Thanks for visiting. [Click here to create your own FREE website at Freewebs.com!](http://www.freewebs.com/the_guidestar/index.htm)