GSoft2 – Getting Started

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GS20(X) Drive Configuration Software

GSoft2 is the configuration software for the Automation Direct GS4 and GS20(X) family of drives. It is designed to allow you to connect a personal computer to drives in the GS4 and GS20(X) family, and perform a variety of functions:

- *Create new drive configurations*
- *Upload/download drive configurations*
- *Edit drive configurations*
- *Archive/store multiple drive configurations on your PC*
- *Trend drive operation parameters*
- *Tune the drive PID loop*
- *View real time key operating parameters*
- *Start/Stop drive and switch directions, provided drive is set up for remote operation*
- *View drive faults*

GSoft2 includes an integral help file with software instructions. GSoft2 can be downloaded for free or purchased on USB card from AutomationDirect.com (search for GSoft2). Use version 2.0 or higher for use with GS20(X).

System Requirements

GSoft2 will run on PCs that meet the following requirements:

- *Windows OS: 7: 32 & 64 bit, 8: 32 & 64 bit, 8.1: 32 & 64 bit, 10: 64 bit*
- *Edge or Chrome (for HTML help support)*
- *32 Mb of available memory*
- *10 Mb hard drive space*
- *Available USB port (for USB Type A to USB Type B cable)*

INSTALLATION GUIDE

SYSTEM REQUIREMENT CONFIGURATION

Verify the GS20(X) drive connection to a PC/Laptop computer by connecting the PC's USB type A port to the GS20(X) drive's USB type B connector. The GS20(X) RS485 port is for connecting to an RS485 network only and can not be used to connect to GSoft2. See Chapter 5 for further information on GS20(X) drive communications.

To USB B port

ADC Part # USB-CBL-AB3

To USB A port

Ethernet connectivity for EtherNet/IP communication is possible with optional communication card # GS20A-CM-ENETIP or GS20A-CM-EIP2. Refer to "Appendix B: Optional I/O and Communication Cards" for details. Note that GSoft2 will only connect through ethernet with firmware versions 1.6 or later.
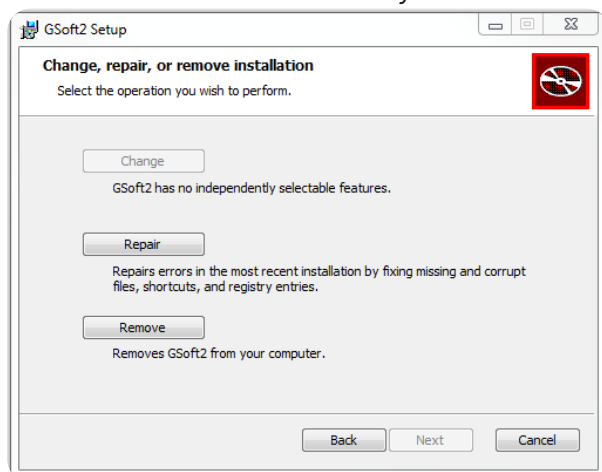
SOFTWARE INSTALLATION

Step 1: Download the installation file from AutomationDirect.com or place the GSoft2 USB into your PC. If Autoplay is not enabled, doubleclick Setup.msi to start the installation process.
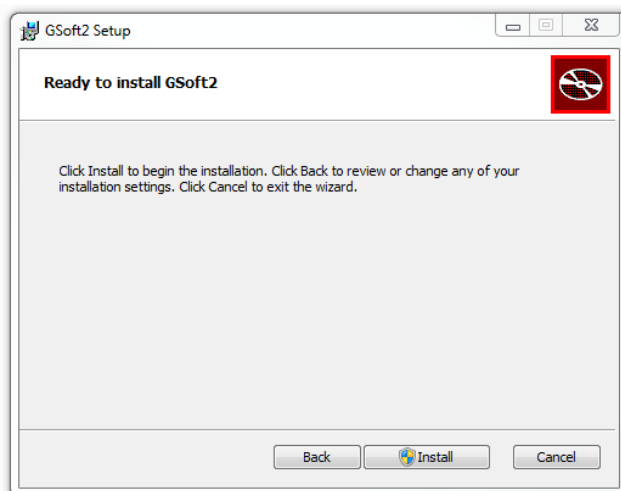

Step 2: Proceed with installation. At the welcome dialogue box select NEXT to continue installation process.

Step 3: If GSoft2 was previously installed then the Change, repair, or remove installation window allows you to effect changes to your installation, repair corrupt files or fix other issues with the current installation. Should you choose the GSoft2 file can be removed as well.

Step 4: If this is a new installation, click "Install" to continue the installation process. Follow the prompts to complete software installation.
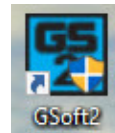
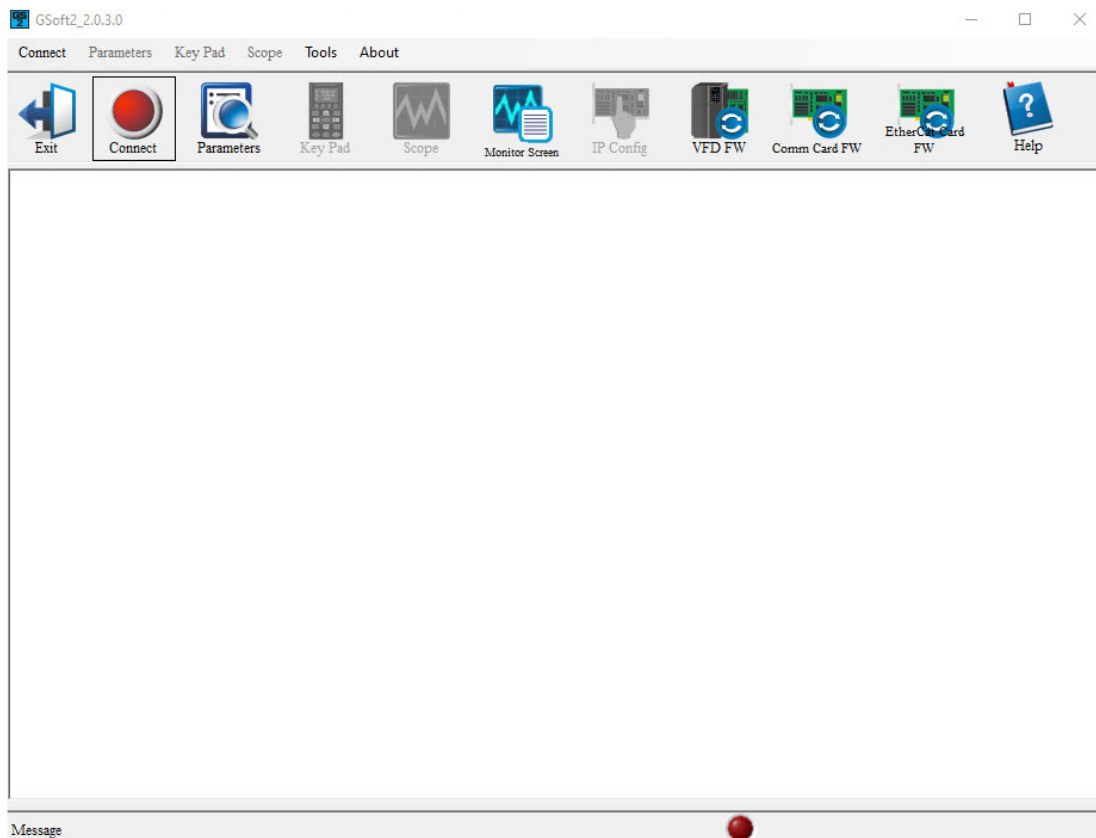## OPENING GSOFT2 SOFTWARE PROGRAM

GSoft2 includes an integral help file with software instructions.

GSoft2 offers the user a PC based software configuration tool for creating and editing a GS20(X) Drive configuration. The configuration tool provides access to GS20(X) Drive parameters in a table format. Each parameter can be adjusted for your specific drive application. Once the selected parameters have been changed, the file can be downloaded to the GS20(X) Drive as well as saved to your project folder for future use on other drives. Once created and saved, subsequent editing is done using the GSoft2 software.
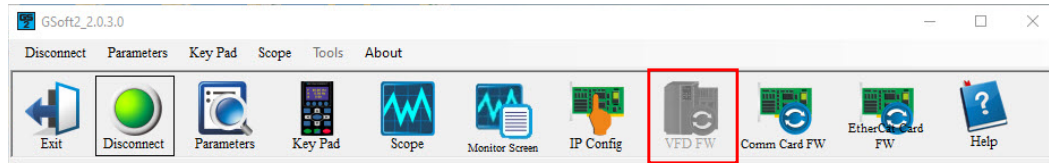
Double click the GSoft2 shortcut to open the program; OR click in the search box in the lower left corner of Desktop and type GSoft2.

GSoft2 Graphic User Interface (GUI) will open. You will notice that only one menu command is in bold (Connect), while the others are grayed out. Some icons on the toolbar are initially grayed out as well. At this point, the GUI includes seven Icons that are available as shown in the screencap. "Connect" is bold as shown upper left.
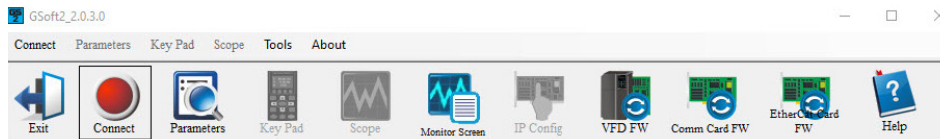
Icons within the red rectangles below will be grayed out after successfully connecting to the drive. Menu Bar commands will now appear in bold text (available).

SOFTWARE FUNCTIONS

ICON APPEARANCE BEFORE CONNECTING TO DRIVE

ICON APPEARANCE AFTER CONNECTING TO DRIVE

ICON FUNCTIONS

EXIT: Shuts down the GSoft2 software. (A pop-up "Are you sure" window will appear).
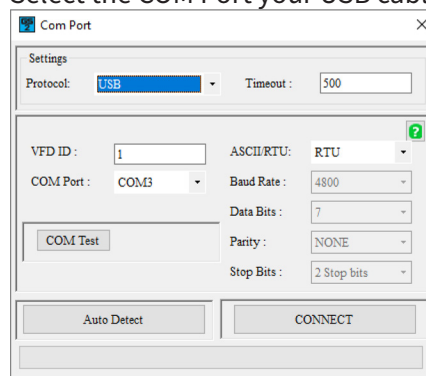

CONNECT: Opens Com Port dialog box (Same as "Connect" on the menu bar). This allows you to configure the settings to establish serial communication to your drive. If several COM ports are installed on your PC, you will need to go to Device Manager to determine which COM port is the correct one.

For GS20(X) it is not necessary to modify the communication settings (ASCII/RTU, Baud Rate, Data bits, etc.) for the drive when using USB (USB settings are hard-coded).
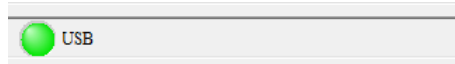
To Connect via USB

1) Select **USB** from the drop-down menu.
2) Verify that RTU is showing in the ASCII/RTI window selector.
3) Verify the VFD ID is correct. Default value on all drives is 1.
4) Select the COM Port your USB cable is connected to.

5) Click the **Connect** button.

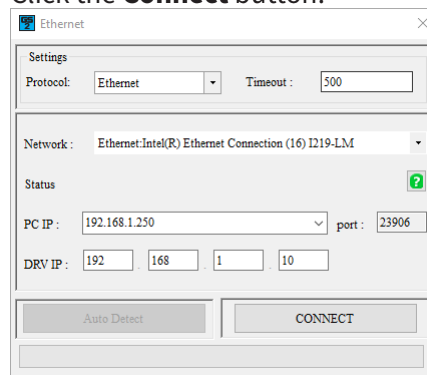6) When connected, the button will turn green and there will be an indicator in the lower right-hand corner of the screen.

To Connect via Ethernet

1) Select **Ethernet** from the drop-down menu.
2) In the Network box, select the Ethernet card your cable is plugged in to.
3) Verify your PC and the Drives IP addresses are correct. All Ethernet cards are default addressed 192.168.1.10.
4) Click the **Connect** button.

5) When connected, the button will turn green and there will be an indicator in the lower right-hand corner of the screen.
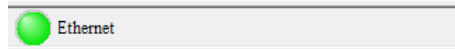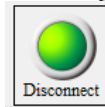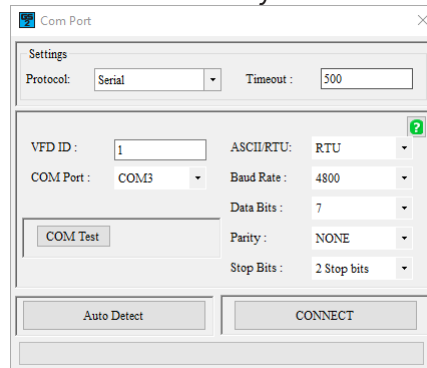
To Connect via RS485

1) Select **Serial** from the drop-down menu.
2) Verify the VFD ID is correct. Default value on all drives is 1.
3) Select the COM Port your USB converter is connected to.

4) Click **AutoDetect**.

5) After AutoDetect is complete, click COM Test to verify settings (a green **OK** should appear). If Red Fault appears, then double check your connections at the PC and the drive.

6) Click the **Connect** button.

7) When connected, the button will turn green and there will be an indicator in the lower right-hand corner of the screen.
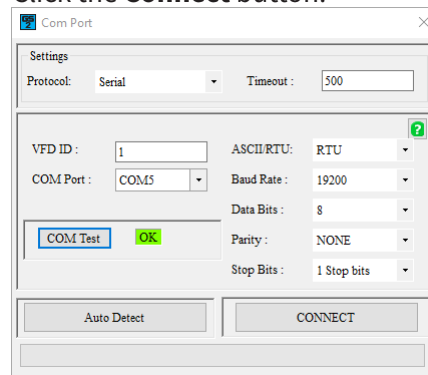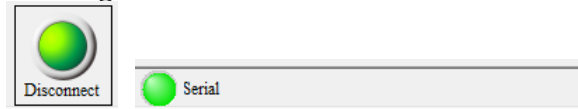
PARAMETERS: Opens GSoft2 drive parameters table. The Parameters screen allows the user to upload and download entire configurations to and from the drive. Individual parameters can be changed "live" as well. There is also the ability to Open and Save files on the PC's hard drive, and the ability to Compare parameter information to a drive's default values. See the online help file for more information.
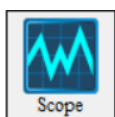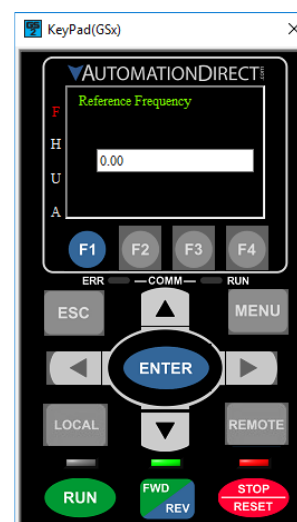
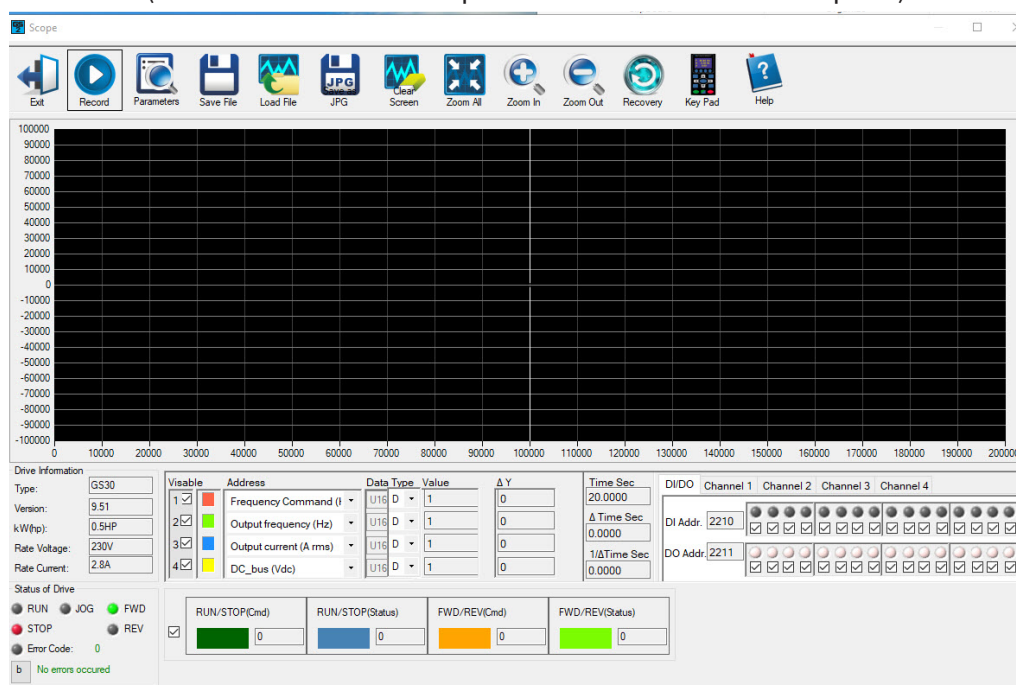| Selected	Pr. NO	Modbus	Description	Unit	Data	Default	Min	Max	Attribute
☐	00.00	0000h	Identity Code		303	0	0	65535	Read-Only
☐	00.01	0001h	Rated Current	Amps	2.80	0.00	0.00	655.35	Read-Only
☐	00.02	0002h	Parameter Reset		0	0	0	13	Writable
☐	00.03	0003h	Start up Display		0:Freq Setpoint	0	0	3	Writable
☐	00.04	0004h	User Display		3:DCBus Voltage	3	0	57	Writable
☐	00.05	0005h	Gain Coeff Rslt		0.00	0.00	0.00	160.00	Writable
☐	00.06	0006h	Firmware Version		9.51	9.51	0.00	655.35	Read-Only
☐	00.07	0007h	Password Decoder		0	0	0	65535	Writable
☐	00.08	0008h	Password Input		0	0	0	65535	Writable
☐	00.09	0009h	Reserved		0	0	0	65535	Read-Only

KEYPAD: Opens an advanced software keypad for use with your drive. Several buttons will be grayed-out (ESC, MENU, and several other keys are non-functional).
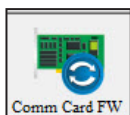
Operational Instructions:

To enable the Jog (F1), RUN, FWD/REV, and STOP/RESET buttons and to allow changes to the drive's speed, please see the GSoft2 online help file (must set P00.20/P00.21 (remote) and P00.30/P00.31 (local) for the drive to accept commands from RS485).

SCOPE: Opens a functional graphic interface for testing and viewing selected drive parameter data values (See the GSoft2 online helpfile for further detailed description).

IP Config: Allows manual configuration of an optional Ethernet card's IP address. GSoft2 uses the serial USB connection to communicate to the GS20(X) Drive ethernet communication card. Gsoft2 does not communicate via ethernet.
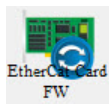
Comm Card FW: Use when upgrading firmware to any newer GS4 Network card with J2 jumper or any GS20 Ethernet comm card. Please read the important *"Firmware Upgrade Notes"* on See the GSoft2 Helpfile for details on how to upgrade communication card firmware.
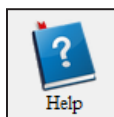
VFD FW: Use when upgrading GS drive firmware. Icon is "grayed out" and not accessible after drive connection has been initiated. Press "Disconnect" to resume functionality.
Please read the important _"Firmware Upgrade Notes" on_ . See the GSoft2 Helpfile for details on how to upgrade firmware.
NOTE: 500mA is required from the USB port of the sending PC. If unsure of the available current supplied by the PC, please use a powered USB hub.

EtherCAT Card FW: The GS20 drive does not support use of an EtherCAT card.

Help: Use the icon to show the help file which provides detailed instructions on all features and detailed procedures.

FIRMWARE UPGRADE NOTES

When upgrading firmware, the drive should be disconnected from all power sources (incoming AC power and control-level DC power).

All unnecessary USB peripherals should be disconnected from the host PC; Especially any USB to serial converters (USB-485M, USB-RS232-1, etc.) (drivers may conflict with the USB FW upgrade driver).

The host PC must be connected to the upgrade port of the GS20(X) via a standard USB A-to-B cable (USB-CBL-AB6 or similar).

Once the PC is connected to the GS20(X), the drive will be recognized as a USB serial device COM port. Open Device Manager to determine which port number has been assigned.

Follow the software's instructions to upgrade the GS20(X) firmware. More detailed firmware upgrade instructions are available in the GSoft2 online help file.

GSOFT2 HELP FILE NOTE

To get the most use out of GSoft2 for the GS20(X) AC Drive and to learn what powerful features and tools exist within GSoft2, we highly recommend that you use the internally available Help File. There are a couple of ways to access this Help File within the GSoft2 software:

• The easiest way to access the Help File information is to click the Help (Help File) icon in the far right of the Toolbox above the viewing pain.

• Alternately, you can access specific topics within the Help File by clicking "?" marks within the GSoft2 software. Those links bring up specific Help File information applicable to the particular GSoft2 topic.

Various data that exists within the User Manual also exists within the Help File, e.g., explanations of "how to" accomplish various tasks. Other information is found only within the Help File, such as more detailed information for using GSoft2 and for upgrading the GS20(X) drive firmware. The help File also contains detailed information concerning the GS20(X) AC drive parameters and information for understanding and using the PID process.

Make use of the Help File, and the Help File will live up to its name.