

#### **Gerber Omega – Troubleshooting Communication Issues**

Description: This document will provide steps to take when troubleshooting connectivity loss when attempting to send print/output jobs to an Allen Datagraph machine via design software. Pictures from Omega version 7.0.

Affected Product(s): 536, 800 Series

#### DirectCut Driver

1. Run the "Enable Printer Driver" application on your computer. For using a PC with Windows, Open the Start Menu, type "Enable printer Driver" and it will appear in the search box.

| Best match                                   |  |
|--|--|
| Enable Printer Driver<br>App                 |  |
| Search work and web                          |  |
| ${\cal P}$ enable - See work and web results |  |
| , Penable cookies                            |  |
| ,  |  |
| ♀ enable touchpad                            |  |
| , ♀ enabler                                  |  |
| ,  |  |
| 𝒫 enable bluetooth                           |  |
| ♀ enable pop-ups                             |  |
| Apps   |  |
| Camera                                       |  |
| Settings (6+)                                |  |
| Documents - This PC (4+)                     |  |
|  |  |
| 9 enable                                     |  |

Alternatively, the application can be manually located in your installation folder: ...\Allen Datagraph\Cutter Driver\InstallCutterDriver.exe

Drivers can be downloaded at <u>https://allendatagraph.com/support/software-support</u>

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2. After running "Enable Printer Driver" an "Install Driver" window will appear. The program will ask to automatically run the setup; make sure the device(s) being setup are connected. The cutter or other device should be powered ON and ready. Click "Yes" for auto installation.

| Install Driver Version 3.02e 1/14/22   |  | _        |            | $\times$ |
|--|--|----------|------------|----------|
| The DirectCut cutter driver is enabled   |  |          |            |          |
| If you want to change the port to which the driv<br>and click on Install Driver              | er is attached you may click on Find Cutter or chec  | :k the a | ppropriate | e port   |
| Destination Ports for DirectCut Driver     ANJUSB     FILE Dutput     COM1     CDM2     CDM2 | Install Driver Associate PLT     Find Cutter Manual IP Assign     Cut Test Cut Close Program | 1        |            |          |
| Confirm  Do you want to do auto cutter driver installation  Yes No                           |  |          |            | ×<br>on? |
| -  |  |          |            |          |

3. If detected, the program will indicate that it connected to a piece of equipment. Click "Yes" here if there is more than one piece of equipment. While detecting equipment, the driver will advise which port (ie, COM3) on which the equipment is functioning.

4. Allow the install process to complete. This will ensure that the DirectCut driver is installed completely to the specified COMM port. The window will close when the process completed.

5. In the PC system tray (bottom right of the PC screen), click the Direct Cut

icon. If it is not visible, click the up carrot in the bottom right of the screen in order to show any hidden icons.

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a. If the DirectCut icon is not visible, start the Spooler manually. In the Start Menu, type "directcut" and then select the "DirectCut Spooler."

| DirectCut Spooler                               |  |
|---|--|
| Search work and web                             |  |
| ${\cal P}$ directcut - See work and web results | >  |
| Documents - This PC (1+)                        |  |
| Photos (2+)                                     |  |
| DirectCut Spooler                               |  |
|   | DirectCut Spooler      Search work and web      O directcut - See work and web results      Documents - This PC (1+)      Photos (2+)      DirectCut Spooler |

6. With the DirectCut Spooler open, make sure the box next to "Long List/Files" is checked. Then click the "Port Settings" button and verify that there is a check box in the box that is next to the COM port for the device (found in Device Manager).

| Port Settings                           |                      |                  | —        |         | ×              |
|---|----------------------|------------------|----------|---------|----------------|
| Check a port                            | if you want to use o | device m         | anager   | setting | js 🛛           |
| COM3                                    |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  | Cancel   | Ok      |                |
| DirectCut Spooler Version 3.02e 1/14/22 |                      |                  |          |         |                |
| Cancel All Port Settings                | Set Destination      | Verify Installat | ion      |         |                |
|   |                      |                  |          |         |                |
|   |                      |                  |          |         |                |
|   |                      | 8                | 😁 🔹      | ·       | actCut Spealer |
|   |                      | 0                | <b>1</b> |         | eccout spooler |
|   |                      | C)ji             | ¢]       |         |                |

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7. When installing drivers with DirectCut, the installed device will have a baud rate/bits per second setting default of 460800 for USB connections. Follow the steps below in the "Baud Rate" section to set baud rate appropriately.

#### **Baud Rate**

The baud rate is the rate at which the communication occurs between a device and the computer. A mismatched baud rate could cause the cutter-to-design software communication to stop.

**NOTE:** Membrane Panels do not need Baud rate changes on the actual cutter, only need adjustments on connected PC

**1.** On the cutter's graphic panel, press the "Settings" and then the "About This Machine" button.



2. A list of information will appear and in that list will be "Baud:" followed by a number. ADSI machines default to 460800, most 3<sup>rd</sup> party software use 9600. Select "User Settings" to change baud rate between 9600 and 460800



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**3.** On the connected PC, open the Device Manager. (Type "Control Panel" then select Device Manager, or type in "Device Manager" on the Start Menu)



- **4.** In the Device Manager list, find Ports and then locate the port which corresponds to the machine (for example, "USB Serial Port (COM3)").
- **5.** Right click on that port, select Properties, then click on Port Settings. Bits per second needs to match the ADSI equipment's Baud Rate.
  - **a.** Most 3<sup>rd</sup> party applications use 9600 Baud rate/Bits per second.
  - b. Flow Control should be "XonXoff" for Cutters with a Graphic Panel
  - c. Flow Control should be "hardware" for cutters with membrane panels (buttons)



6. Gerber operates at 9600 Baud rate/Bits per second.

**7.** Try the output again in Gerber. Often, the baud rate/bits per second mismatch is the reason why the communication did not occur.

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#### Gerber Devices – Output All/Selected via USB

After plotting a design in Gerber software, use the Output All/Selected function. The Quick Plot Window will open with the design. The goal of this process is to uninstall and reinstall the ADSI equipment as an output/print device in Gerber. Before sending a design to the cutter/device, make sure to check the preferred print devices in Gerber.

# Note: This example is using Gerber Omega 7.0. If you have a different version, the prompts may be different looking or located in a different menu, but the idea is the same.

- 1. Click File > Output All/Selected
- 2. In the Quick Plot Window, click on the "Device Select" icon or go to Setup then Device Selection.
- 3. Click on "Install" (There are two "Install" buttons, click on the one closer to the top of the window)
- 4. Under the section labeled "Installed Plotter/Router(s):" select the ADSI/ADG/AD plotter that you are using, then click "Delete"
- 5. Close the device selection window and close the output window
- Click File > Output All/Selected, if no cutters are installed, it will automatically attempt to install a new cutter. Add or Delete Plotter Window will open
- Under the section labeled "Available Plotter /Router(s) on local system:" select the ADSI product that you are trying to install. For example, "ALLEN-DG536" will work for a 536 GTS device and "ALLEN-MDL830" will work for an Itech i30 or 830 machine.
- 8. Click "Add"
- 9. In the window that appears, click "Port Settings"
- 10.In the window that appears, click the box next to "Use Device Manager Settings"
- 11.Click "OK" on that window (labeled Port Settings).
- 12.Click "OK" on that window (labeled Add Name HPGL Device).
- 13.Under "Installed Plotter/Router(s):" select the device installed, and click on the "Preference" button to the right of the "Installed Plotter/Router(s):" section. This marks that device as the preferred output device for Gerber.
- 14.Use the Output function or the Cut/Pounce functions to output the design.

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#### Gerber Devices – Output All/Selected via Ethernet

After plotting a design in Gerber software, use the Output *All/Selected* function. The Quick Plot Window will open with the design. The goal of this process is to uninstall and reinstall the ADSI equipment as an output/print device in Gerber. Before sending a design to the cutter/device, make sure to check the preferred print devices in Gerber.

# **NOTE:** Ethernet must be established via Direct Cut Driver, PRIOR to troubleshooting with Gerber. Gerber will need the IP address affiliated with the cutter.

- 1. Click File > Output All/Selected
- 2. In the Quick Plot Window, click on the "Device Select" icon or go to Setup then Device Selection.
- 3. Click on "Install" (There are two "Install" buttons, click on the one closer to the top of the window)
- 4. Under the section labeled "Installed Plotter/Router(s):" select the ADSI/ADG/AD plotter that you are using, then click "Delete"
- 5. Close the device selection window and close the output window
- Click File > Output All/Selected, if no cutters are installed, it will automatically attempt to install a new cutter. Add or Delete Plotter Window will open
- Select the "Network" Tab, then select the ADSI product that you are trying to install. For example, "ALLEN-DG536" will work for a 536 GTS device and "ALLEN-MDL830" will work for an Itech i30 or 830 machine.
- 8. Enter the IP Address that was obtained from Direct Cut
- 9. Click "Add"
- 10.Click "OK" on that window (labeled Add Name HPGL Device).
- 11.Under "Installed Plotter/Router(s):" select the device installed, and click on the "Preference" button to the right of the "Installed Plotter/Router(s):" section. This marks that device as the preferred output device for Gerber.

Use the Output function or the Cut/Pounce functions to output the design.



#### Gerber Devices – Print

After plotting a design in Gerber software, use the File > Print function. The Print option offers a choice of any printer device currently installed on the computer running Omega. To check for a list of these devices, use the "Printers and Scanners" menu in Windows, accessible through the Start Menu.

# **Note**: This example is using Gerber Omega 7.0. If you have a different version, the prompts may be different looking or located in a different menu.

- 1. Click File > Print. The Print window will open.
- In the selection box next to the title "Name:" select the ADSI equipment that will be used to print the design. "DirectCut" will be a component of the name of the device in this menu. For example, "DirectCut on USB" or "DirectCut on LAN".

| Print              |                              | ×                               |
|--------------------|------------------------------|---------------------------------|
| P - Printer        | U - Output                   | 0 - Options                     |
| Name:              | Adobe PDF                    | ✓ Properties                    |
| Status:<br>Type:   | Ready<br>Adobe PDF Converter |                                 |
| Where:<br>Comment: | Documents\*.pdf              | Print to file (V)               |
| Shapes             | ion                          | Copies<br>Number of copies: 1 4 |
| Print Preview      | ν                            | DK Cancel Preferences           |

| Print           | >  | < |
|-----------------|--|---|
| P - Printer     | U · Output 0 · Options   | 1 |
| Name:           | Adobe PDF  |   |
| Status:         | Adobe PDF  |   |
| Lype:<br>Where: | Fax Microsoft PSD Document Writer to file [V]                            |   |
| Shapes          | OneNote (Desktop)<br>OneNote for Windows 10<br>Pantum CP1100 Series PCL6 |   |
| C Selection     | on Number of copies: 1 -   |   |
|                 |  |   |
| Print Preview   | OK Cancel Preferences  |   |

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3. If necessary, click the "Properties" button. This will list all of the DirectCut "printer" properties which are available in the "Printers and Scanners" section of Windows.

| Advanced                                   |                |        |
|--|----------------|--------|
| B DirectCut on USB Advanced Document Setti | par            |        |
| Directout on 030 Advanced Document Sett    | ngs            |        |
| Paper Size: 120 (227cm) v 120 (227c        |                |        |
| Copy Count: 1 Copy                         | m) v           |        |
| Graphic                                    |                |        |
| Print Quality: 1016 DPI                    |                |        |
| Scaling: 100 %                             |                |        |
| Document Options                           |                |        |
| Copies/Row: 1                              |                |        |
| DirectCut Driver Ver 3.02:                 |                |        |
| Find Origin: None                          |                |        |
| Edge Offset 0 to 4 : 0.500 (inch)          |                |        |
| Space between jobs -4 to 4 or auto: 0      | .125 (inch)    |        |
| Combine Polygons: <u>Yes</u>               |                |        |
| Loop Control: <u>All CounterClockwise</u>  |                |        |
| Mirror: <u>No Mirror</u>                   |                |        |
| Rotate Image: <u>No Rotate</u>             |                |        |
| Sort Method: Distance                      |                |        |
| Tile Distance 2 to 24 : 8 (inch)           |                |        |
| Multiple Pen Output: No                    |                |        |
| Weed Border: <u>No</u>                     |                | *      |
|  | OK             | Connel |
|  | UK             | Cancer |
|  |                | _      |
| Weed Border: No                            |                |        |
| Minimum Vector Length 0.004 to 0.1         | : 0.010 (inch) |        |
| End Point: End of Job                      |                |        |
| Unroll Media Before Plot Count: 0          |                |        |
| Rubber Mode (Pen then Knife): <u>No</u>    |                |        |
| Overcut 0 to 0.1 : <u>0 (inch)</u>         |                |        |
| Send Force to tool : <u>No</u>             |                |        |
| Send Speed to tool : No                    |                | $\sim$ |

4. Once the properties are edited and the ADSI equipment is selected in the "Name:" box, click "OK" to send the job to the printer. The DirectCut Spooler will send data to the ADSI equipment and begin the job process.

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