Getting Started Guide

DESKTOP

Welcome to FlashCORE III Programming Engine – Desktop Model

The FlashCORE Desktop is Data I/O's desktop version programming engine. Designed for programming first article builds to confirm functionality prior to high-volume production runs, it is the same programming engine used in the PSV7000 for seamless transfer from Engineering to Operations.

Scope of this Guide

Getting started with the FlashCORE III Desktop Model covers these topic:

- Setup FlashCORE III Desktop,
- Install Software,
- Configure the Network,
- Get Algorithms from Data I/O,
- Create a Job,
- Run a Job, and
- Troubleshooting tips.

983-5077-001A

Data I/O

Contents of the Desktop Model

1. FlashCORE III (FC III) Desktop Programmer
2. Vacuum Tool Kit
3. Power Cable
4. Ethernet Cable
5. TaskLink and PS software CDs (vary depending on PS System)
6. Customer Service Letter 983-XXXX-001 and conformance documents

Figure 1: Contents of FlashCORE III Desktop. Ensure that the CDs match the PS System you have. PSV7000 and AH700 CDs shown here.

Requirements

Computer Requirements (for TaskLink)

Operating System: Windows 7 (32 or 64 bit), with Administrative Permissions
Hard disk space: 90 MB minimum for Algorithm files and the two applications;
- also additional space for the jobs you create.

A CD Drive
Two Ethernet Ports:
Access to your Corporate LAN / Internet access
A 100 Mbps NIC (dedicated, private, Static IP Address) for FlashCORE III, or a 1 Gbps NIC with auto-negotiation. (For more information search the Web for *How to install a second Network Adapter card.*)
Optional Hardware: 100 Mbps Ethernet switch box if networking more than one programmer (each programmer must have a unique IP address).

Electrical Requirements

Operating voltage: 110–240 VAC
Power Consumption: 100 watts max
Frequency Range: 50 to 60 Hz

Environmental Requirements

Operating Temperature: +10° to +30° C (50° to 86° F)
Humidity: ≤ 90%

Programming Requirements

Your target device(s)
At least one Socket Adapter for that device
A FlashCORE III Algorithm for that device
A ground connection
A 4 mm hex key (Allen wrench)

Getting Started

CAUTION: Electrostatic Discharge Hazard!
Electrostatic Discharge (ESD) may damage equipment and integrated circuits. Discharge static electricity to a common ground. Use ESD prevention devices that contain a 1 M-ohm to 10 M-ohm current limiting resistor.

WARNING: Electric Shock Hazard!
Injury or death may result from contact to parts inside the programmer. Do not remove covers. No user serviceable parts.

1. Set Up & Configure FlashCORE III Hardware

1-1. Plug the power cable into the FlashCORE III and into a 120-240 VAC outlet.

1-2. Connect the Ethernet cable between the PC and the programmer.

1-3. Recommended: Plug in a wrist ground strap to prevent electrostatic discharge.

1-4. To install a Socket Adapter, unscrew the two captive, socket head screws (4 mm hex key) and open the adapter bracket..

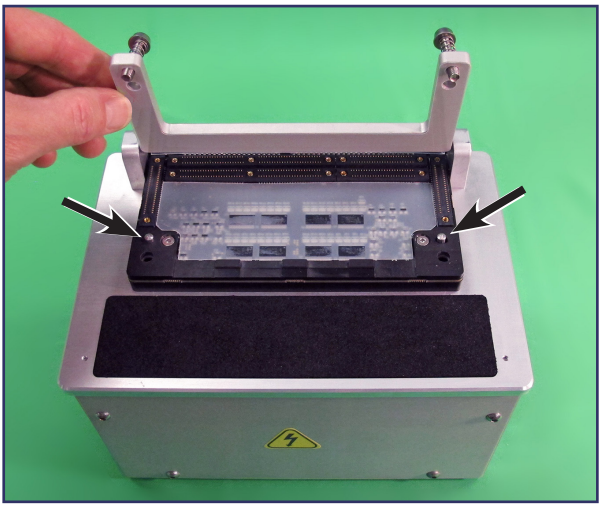


Figure 2: FC Desktop without Socket Adapter. Bracket is open exposing the dowel pins (arrows). .

CAUTION: Possible machine damage! Bent or damaged pins can reduce yields or prevent programming. Do not touch connector pins.

1-5. Insert the correct Socket Adapter, making sure that it seats on the dowel pins. NOTE: don't touch the gold contacts on the bottom of the adapter.

NOTE: The correct adapter can be confirmed on the Data I/O website. On our website: 1) Click *Support* > *Device Support*, 2) Type in your device PN and Search for Devices. 3) Select your device from the list and see adapter PNs in the right column.

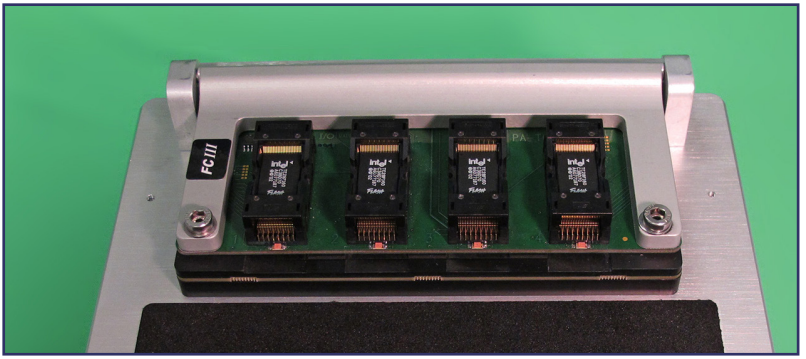


Figure 3: Socket Adapter is installed and bracket tightened.. Devices have also been installed in this view.

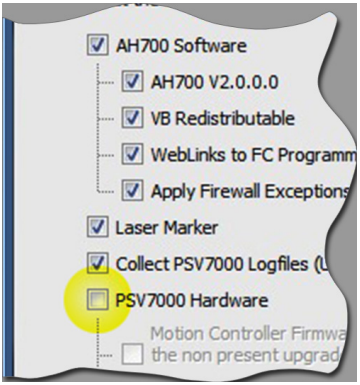
1-6. Close the socket bracket and screw in the two screws.

1-7. Using the vacuum tool supplied, insert your target device(s) into the socket(s).

2. Install Data I/O Software

NOTE: Administrative Permissions are required to continue.
To check if you have Admin Permissions:
1. Open the Control Panel.
2. When viewing by Category (versus icons) click *System and Security* > *Administrative Tools* > *Computer Management*.
3. Expand *Local User and Groups* and click *Groups*.
4. Double-click *Administrators*.
5. Verify that your login name is in the Members list. If not click *Add* and enter the data, or if you don't have permissions, contact your administrator.

2-1. At a PC with Windows 7 running, insert the AH700 or AH500 CD (whichever is applicable) and right-click *Setup.exe* > *Run As Administrator*. Follow the on-screen instructions. Accept all defaults except hardware files (which are not required for the Desktop programmer). To do that, uncheck the box for *PSV7000 [or PS System] Hardware* (this includes Vision files, Automatic Tray Feeder files, and others).



2-2. Insert the TaskLink CD and right-click *Setup.exe* > *Run As Administrator*. Follow the on-screen instructions.

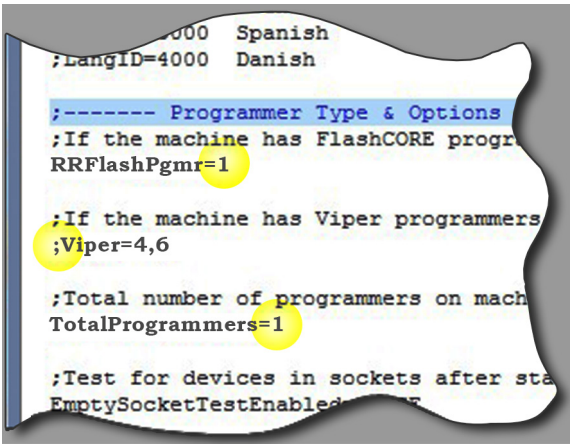
2-3. In Explorer, navigate to the winah400.ini file; for example, with the PSV7000, the path is `C:\AH700\winah400.ini`. Then rename it to something else such as `winah400-Orig.ini`. Note that your Explorer might be set to hide the extensions.

2-4. In the same folder find file `winah400_simulator.ini` and rename it to `winah400.ini`.

NOTE: Do not open this file in Microsoft Word or other word processing software.

2-5. Edit the winah400.ini file in Notepad or UltraEdit to make the following changes:

Change `RRFlashPgmr=` to 1
Add a semi-colon in front of `Viper=4,6`
Add `BatchMode=True`
Change `TotalProgrammers=` to 1



3. Configure FC III Network Connection

Configure the Host PC's network adapter (NIC) for a static Ethernet connection to the programmer.

3-1. With your target Socket Adapter installed and the power cable plugged in, turn ON the power switch on the side of the programmer.

> NOTE: Before proceeding, **wait until the red LED at each socket blinks once** to indicate that the startup procedure has completed.

3-2. Open the Windows Control Panel and click *Network and Internet* > *Network and Sharing Center*.

3-3. Click *Change Adapter Settings*.

3-4. Right click the *Local Area Connection* (for the FlashCORE Desktop programmer) > *Properties*.

3-5. Select *Internet Protocol Version 4 (TCP/IPv4)* from the list and click *Properties*.

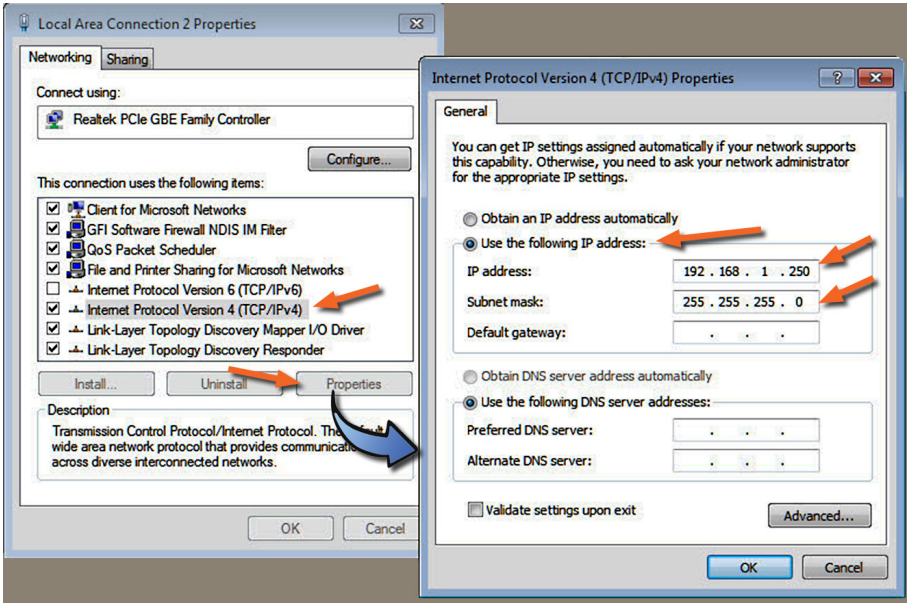


Figure 4: Network Settings.

3-6. Select *Use the following IP address*.

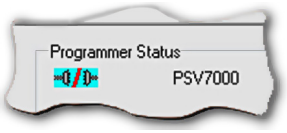
3-7. Enter IP address **192.168.1.250** (and Subnet mask **255.255.248.0** if it doesn't auto-fill).

3-8. Click *OK* and *Close*, and close the Control Panel window.

CONNECT TASKLINK COMMUNICATION AS FOLLOWS:

3-9. Start TaskLink (double click the desktop icon). If asked to allow TaskLink through the firewall, click OK.

3-10. Set the programming system to your PS System. (If the TaskLink Startup Wizard opens, click *Select Programming System* > *OK*, then select your PS System and click *OK*.)



3-11. Click *System* > *Options* > *Communication* tab.

3-12. Click *Locate* and then *Yes* (to delete programmers from the list). See the figure below.

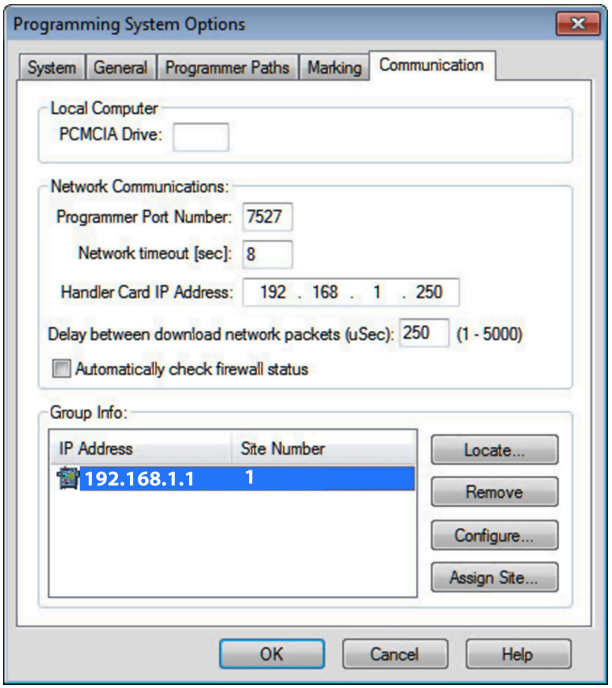


Figure 5: The TaskLink Communication tab displays Network Settings. The IP Address for each programmer is listed in the lower left corner.

3-13. After it's located, select the programmer and click *OK*.

3-14. Highlight the programmer—see Figure 5—and click *Assign Site*.

3-15. (Optional) Click *Toggle LEDs* to check connection. (Socket LEDs will blink).

3-16. Select a site number and click *OK*. And *OK* again to close the dialog.

3-17. Close TaskLink.

For more information see *Assigning Programmer Site Numbers* in TaskLink's online Help.

4. FlashCORE III Connectivity

Prerequisite: Your target Socket Adapter is installed, the power cable and Ethernet cable are plugged in, and the power is ON.

4-1. Open the Windows command prompt application (cmd.exe) via the Start menu or keyboard shortcut.

4-2. Type `ping 192.168.1.1` and press Return. Note that this programmer IP address is different from the NIC address.

4-3. If there is a reply from the FlashCORE III programmer, connectivity is good. Refer to the figure below.

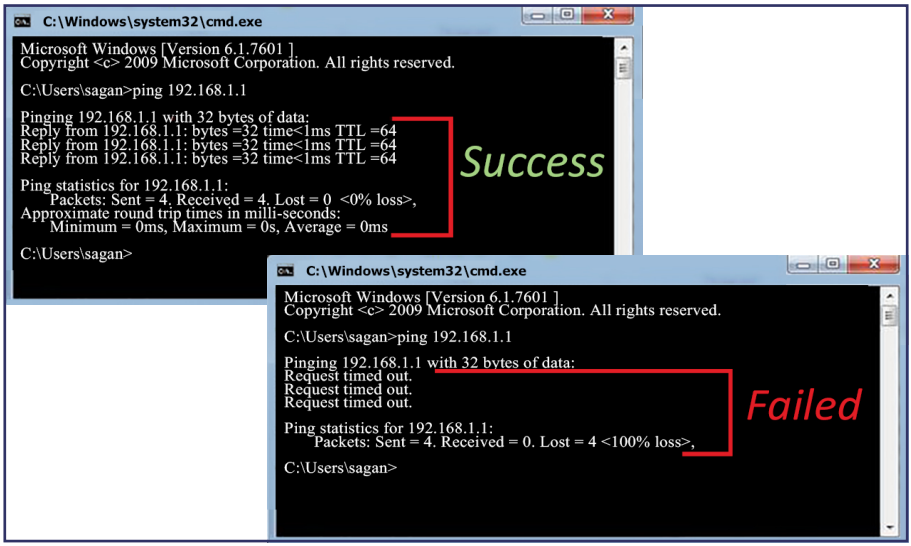


Figure 6: Examples of communication success and failure in cmd.exe. If yours failed, see Troubleshooting later in this document.

4-4. Exit the CMD.EXE window.

5. Download Algorithms from Data I/O

5-1. Close TaskLink before downloading and installing algorithms.

5-2. In a browser, navigate to the Data I/O home page (**www.dataio.com**) click *Support> Software & Firmware.*

5-3. Adjacent to *PS Series* click *more.*

5-4. Click *PS Series Download* and *Save.*

Figure 7: Navigating the Data I/O website to the Download page.

5-5. Find the downloaded file (for example: P3_C.exe) and double-click it to start the installation process.

5-6. Click Yes to the Windows User Account Control dialog.

5-7. When the InstallShield Wizard displays click *Next* to install the (*Keep*) *Current* algorithms. Refer to the image below.

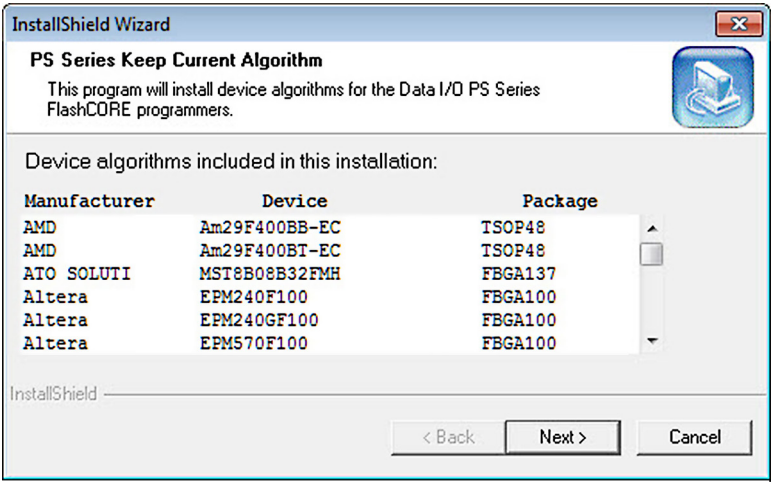


Figure 8: The Keep Current algorithms are all algorithms added to our database in the last four months.

5-8. Click *Finish*.

5-9. If a Windows message displays reading *This program might not have installed correctly*, click *This program installed correctly*.

NOTE: If you want to check for a specific algorithm, follow the next step. Otherwise, you can skip to *Create a Job and Run it*.

5-10. (Optional) To check for new algorithms, go to Device Search Engine on the **Device Support page** of our Data I/O website.

5-11. (Optional) After the list on the right updates, click *Download All* to download files to `C:\Dataio\Tlwin\PSSeries\PS_Algs`.

5-12. (Optional) Close the Updater with the X in the upper right corner.

5-13. At the Settings dialog, click *Close*.

Congratulations. You are ready to program.

6. Create a Job and Run it

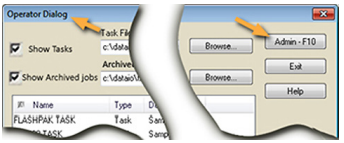
Creating a Job

6-1. Start TaskLink via the desktop icon.

6-2. Make sure the Programmer Status is *PS Systems* or *PSV7000* as applicable. (To change it, at TaskLink's main window click *System* > *Select Programming System*.)

6-3. Click *Task* > *Task Manager* or the *Manage Tasks* icon

NOTE: You need administrative privileges to create or edit a task/job. If *Task Manager* opens in Operator dialog, click *Admin*.



6-4. Use TaskLink's online Help for instructions to create a job. Click *Help* > *Help Topics*. Then at the home page click *Create a Task* (or find *Create a Task* in the Table of Contents).

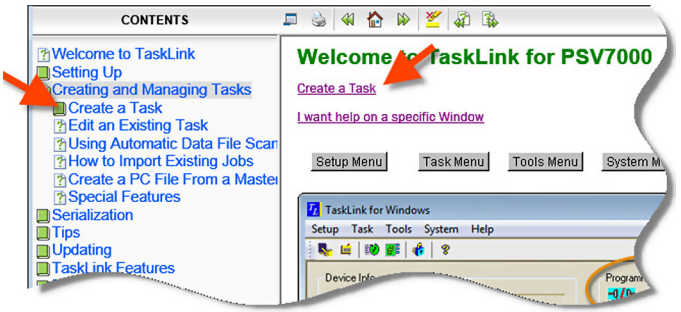
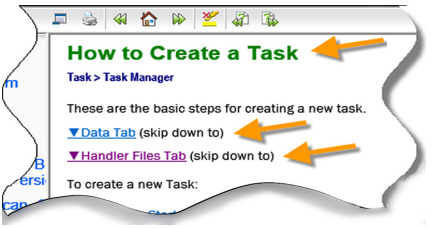


Figure 9: TaskLink Help file. Two ways to open the same topic.

Also, a Task file must be created if one doesn't already exist. See the same page in the Help (*How to Create a Task*) and see the subheadings for the Data File tab and Handler File tab.



Running a Job

6-5. To run your job (with devices in the sockets), at the Task Manager select your job and click *Run*.

6-6. At the Process Devices dialog, enter a PASS limit of 1 or [up to the maximum number of sockets on your current Socket Adapter]. Session ID is optional.

6-7. Click *OK*. The job downloads and a Footnotes dialog opens.

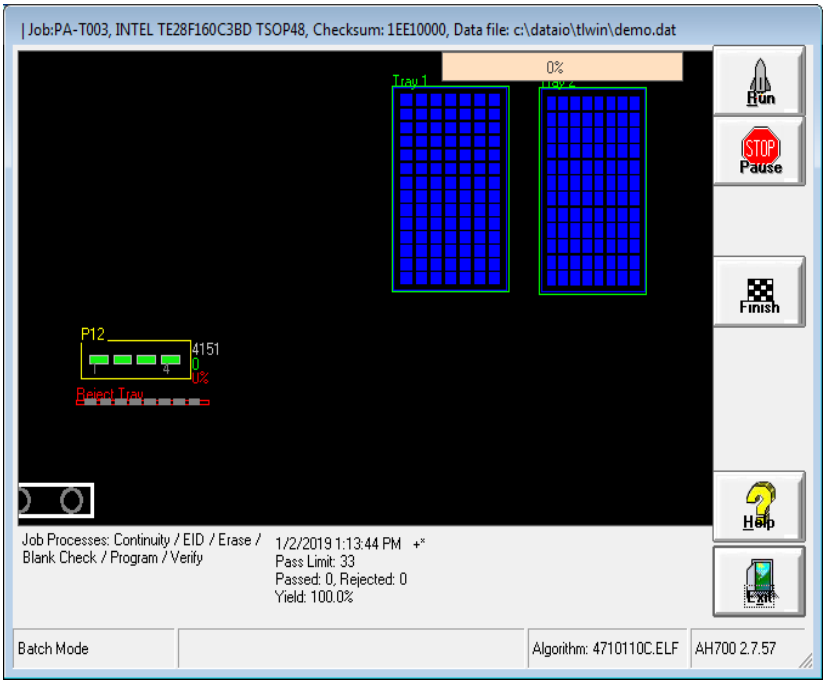
6-8. Click *Close* to close the Footnotes dialog.

6-9. Click *Yes* to okay the checksum. Your PS System software will open. (For example: AH700 opens if TaskLink is set for PSV7000 Programming System.)

6-10. Click Start.

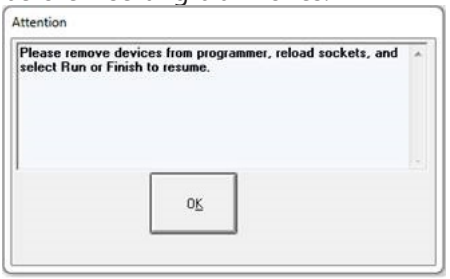
6-11. Click *Run* in the Setup widow. Supervisor privileges may be required.

6-12. Click *Run* in the Run window and click *OK* to the socket message.



NOTE: For further PS System Software help, see the on-screen Help file (click the question mark).

If you entered a PASS limit greater than the number of sockets, then AH700 automatically stops and prompts you to remove the programmed devices before inserting blank ones.



Results

The Run window displays socket status by color. If a programming error occurs, the socket will display red. The LED at each socket on the adapter also displays status.

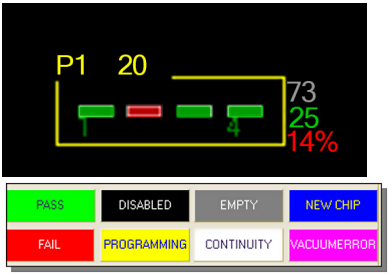


Figure 10: TaskLink's Run window displays socket status by color. This image shows socket two failed programming.

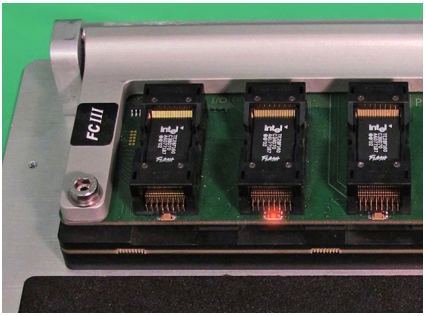


Figure 11: The illuminated LED at socket two indicates that programming has failed.

Troubleshooting Network Connections

If you have communication issues or receive error messages when programming, follow the steps below to check your network connections.

1. Confirm that you are using the correct FlashCORE Desktop programmer IP Address by reading the label on the side of the programmer.
2. Open Windows CMD.EXE and ping the programmer: ping 192.168.1.1.
3. If response is '*timed out*' then close the PS Software and TaskLink and disconnect your network cable from your PC and re-insert it.
   -Ping the programmer again from the command prompt. If the request is '*timed out*' follow steps 6 and 7 below until you receive a reply from the programmer.
4. If you are using a 1 Gbps NIC with auto-negotiation, try setting the NIC to 100 Mbps.
5. Disable and re-enable your local Network via the control panel.
   -Ping the programmer again from the command prompt.
6. Cycle the power on the programmer.
   -Ping the programmer again from the command prompt.
7. Power cycle the PC (closing applications and shutting down the usual way).
   -Disconnect and reconnect the Ethernet cable.
   -Ping the programmer again from the command prompt.
8. Reset the network connection:
   Click the *Start* button > *Control Panel* > *Network and Internet* > *Network and Sharing* > *Change Adapter Settings*.
   Right-click *Local Area Connection* (programmer network) > *Disable*.
   Right-click *Local Area Connection* again (programmer network) > *Enable*.

Troubleshooting Firewall Issues

If you experience trouble with files getting through your Firewall:

Allowing TaskLink Through

1. Open the Control Panel.
2. When viewing by Category, click *System and Security* > *Windows Firewall*, and verify that your firewall is On.
3. In the left column click *Allow a program or feature through Windows Firewall*.

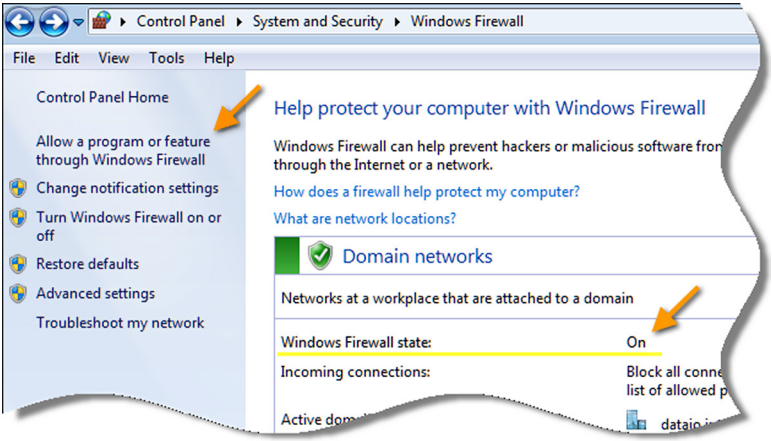


Figure 12: Confriming the firewall is ON and setting programs allowed through.

4. If the program names are dimmed (not editable) then click the *Change Settings* button.
5. Scroll down the table to **TaskLink** and check mark the box in the column named *Home/ Work (Private)*.

> NOTE: If you don't see TaskLink in the list, click *Allow another program*. Click `Browse`. Navigate to `C:\Dataio\Tlwin`, highlight **TLWin.exe** and click *Add*. Then check the boxes mentioned above.

Allowing 'Collect Logs' Through

1. Continue from above, or follow steps 1 through 4 under heading *Allowing TaskLink Through*.
2. To allow the Collect Logs utility through, click *Allow another program*.
3. Click *Browse* and navigate to `C:\Program Files\CollectLogs` or `C:\Program Files (x86)\CollectLogs`.
4. Highlight **Collect_PSV_Series_Logs.exe** in the list and click *Open*.
5. Click *Add*.
6. Find **Collect Logs** or **Collect Logs PSV** in the table and check mark the box in the column named *Home/ Work (Private)*.
7. Click *OK* and close the Control Panel.

Technical Support

Contact Data I/O World Wide Support or your local representative.

THE BEST WAY TO GET SUPPORT IS BY USING OUR ONLINE FORM.

GO TO THE DESIRED WEBSITE AND CLICK THE TECHNICAL SUPPORT LINK (OR THE CONTACT SALES LINK).

www.dataio.com www.dataio.de www.dataio.cn

FIND YOUR LOCAL REPRESENTATIVE ON OUR WEBSITE

Navigate to **`http://www.dataio.com`** and click *Contact Sales* (upper right), and then *Representative Search*. Then follow the instructions.

FOR QUICK ACCURATE SUPPORT, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- FlashCORE III Desktop Serial number (see label) 

- TaskLink Version (*Help* > *About TaskLink* from the main window)
- Programmer Firmware Version (in TaskLink click *Tools* > *View Programmer Information*)
- Detailed description of the problem you are experiencing (if any)
- Error messages (if any)
- Device manufacturer, part number, package style and number of pins (if device related)
- Name, telephone number, address, and e-mail address

The worlds most trusted programmers

FlashCORE III
TECHNOLOGY

FLASHCORE DESKTOP—
WITH FLASHCORE III PROGRAMMING ENGINE— INTEGRATES INTO OUR PS PROGRAMMING AND HANDLING SYSTEMS INCLUDING PSV7000 FOR A CONNECTED PROGRAMMERING PROCESS.

Data I/O

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