

Cirris Hub
User Manual



Table of Contents

1. Introduction	4	4.3 Logging Verbosity.....	26
1.1 System Requirements.....	4	4.4 Cirris Data Access	26
1.2 Network Configuration	4	4.5 Restart Server.....	27
1.2.1 Independent Network.....	5	4.6 Reset Hub Admin Password	27
1.2.2 Company Network	6	5. Remote Access	28
2. Installation	7	6. Using a File Hosting Service	29
2.1 Software Installation.....	7	7. Help / Support	30
2.2 Initial Startup	8		
2.3 Connecting Testers	8		
2.3.1 4200 Testers.....	9		
2.3.2 Easy-Wire Testers.....	10		
2.4 PC Settings.....	10		
3. Hub Interface	11		
3.1 Tester Stations.....	11		
3.1.2 Configure Tester Station	12		
3.2 File Management.....	14		
3.3 Network Printers.....	16		
3.4 Server Status.....	17		
3.5 Test Editor	18		
3.5.1 Common Editor Options.....	19		
3.5.2 Test Setup.....	20		
3.5.3 Reports	20		
3.5.4 Wiring	21		
3.5.5 4Wire Pairs.....	24		
4. Cirris Hub Configuration	25		
4.1 Server Address / Station Comm Port ..	25		
4.2 Hub Folders.....	26		

1. Introduction

The Cirris Hub is a software application that provides 4200 Series testers with a network platform for sharing data and provides access to network hardware resources such as printers. It also provides the current status of the testers and the status of Cirris testers controlled by the Easy-Wire software.

The Hub is a web-based application that installs on a networked PC and is managed locally. It does not require Internet access, but future developments may make it an attractive option. The Hub package included with the 4200 Series testers and allows the units to take advantage of their built-in networking capability to perform a variety of tasks including:

- Storing test programs on a network drive for easy backup of the files.
- Sharing test programs stored on a network drive or on a mapped cloud drive such as OneDrive, SharePoint, Google Drive, Dropbox etc.
- Sharing test programs with remote locations.
- Printing reports to network printers.
- Saving reports as PDF or text files.
- Editing test programs using the Hub editor.
- Organizing testers with custom names, tracking calibration status and firmware/software versions.
- Monitoring the current status of 4200 Series Testers and the status of testers controlled by the Easy-Wire software (Online / Offline / Editing / Testing).

The Hub interface provides access the Hub's functions and features. However, the Hub Interface does not need to be open for testers to access the Hub as its services run in the background, even when the interface is closed.

1.1 System Requirements

The following are required to run the Cirris Hub Software:

- A PC running the Windows 10 operating system or Windows Server 2016 or 2019.
- The Google Chrome or Microsoft Edge web browser must be installed. The Mozilla Firefox browser produces inconsistent results when used with the Cirris Hub.
- The PC on which the Hub software is installed must be on the same network as the Cirris testers connecting to the Hub.
- A printer must be connected to the network if intending to print reports from a 4200 Series tester using the Hub (on testers controlled by Easy-Wire, printer selection is handled in the Windows operating system). The printer can be connected to the network through a PC or it can be connected directly to the network depending on the capabilities of the printer. As an alternative, it's also possible to print reports to a qualified printer connected directly to a 4200 Series tester. See the *4200 User Manual* for information.

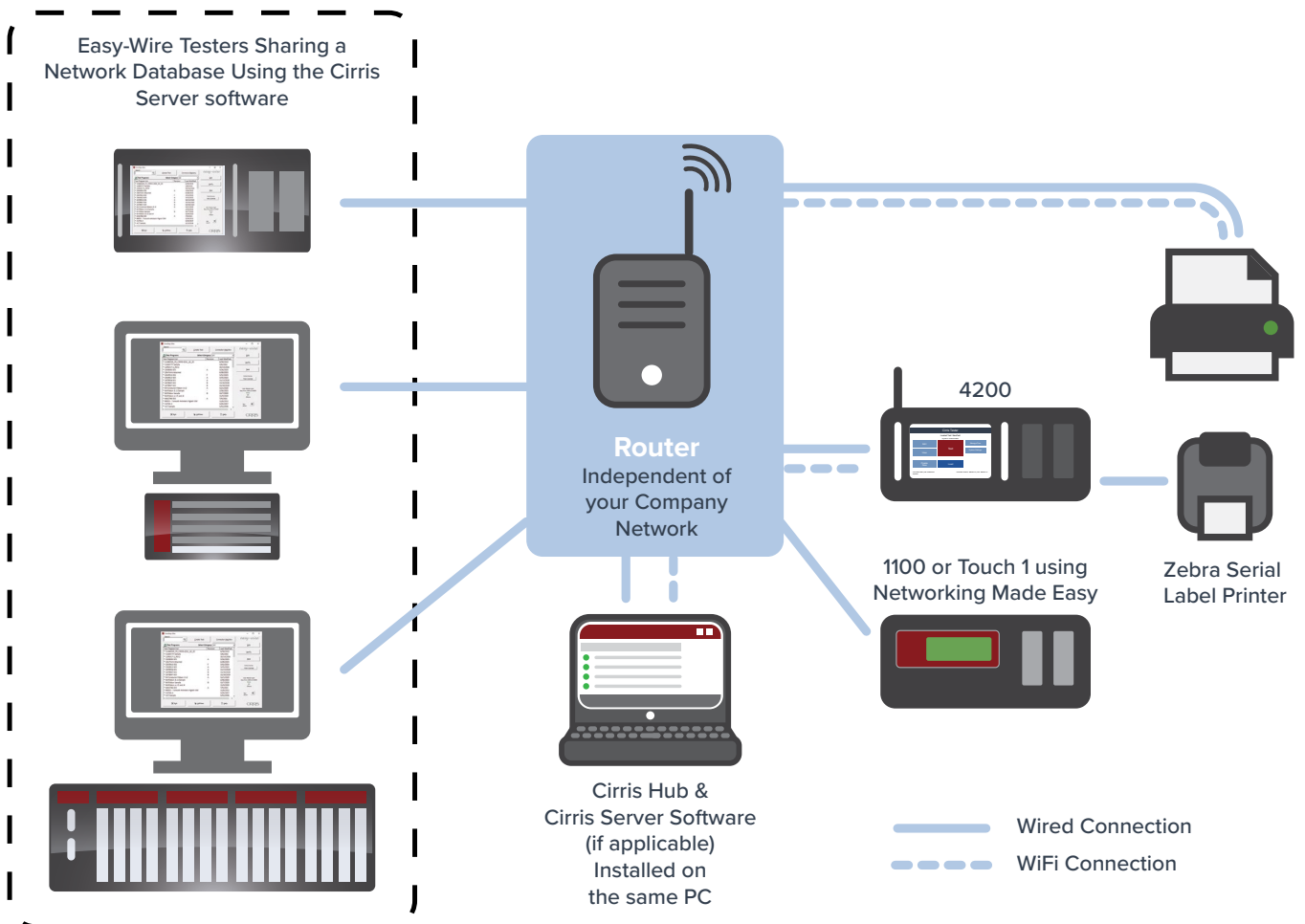
1.2 Network Configuration

The network on which the Cirris Hub Software is installed can be either an independent network or an existing company network. The 4200 supports wired (Ethernet) connections and wireless (WiFi) connections. WiFi range from the router to the PC, printers, and testers is limited to a few hundred feet while Ethernet connections to the router may be up to 1000 feet (300 meters). The dependability of WiFi networks can vary dramatically depending on the equipment used and environmental conditions, such as high frequency interference. Therefore, you may find that wired networks are more reliable.

Starting with version 2021.3.1, the Hub can display the status of Easy-Wire testers, including the CR, CH2 and Easy-Touch testers, by communicating with the Easy-Wire database through the Cirris Data Access Service. To support this function, the Hub application must be installed on the same PC where the Easy-Wire database is located. This can be the same PC controlling a single Easy-Wire station, but a much more typical installation would include multiple Easy-Wire testers sharing a single, networked database using the Cirris Server software. In this second case, the Hub application would be installed on the same PC as the Cirris Server software. Regardless of where the Hub application is installed, its user interface can be accessed by any device (PC, Mobile Phone, tablet, etc.) connected to the network by entering the IP address of the Hub in the address line of a browser.

1.2.1 Independent Network

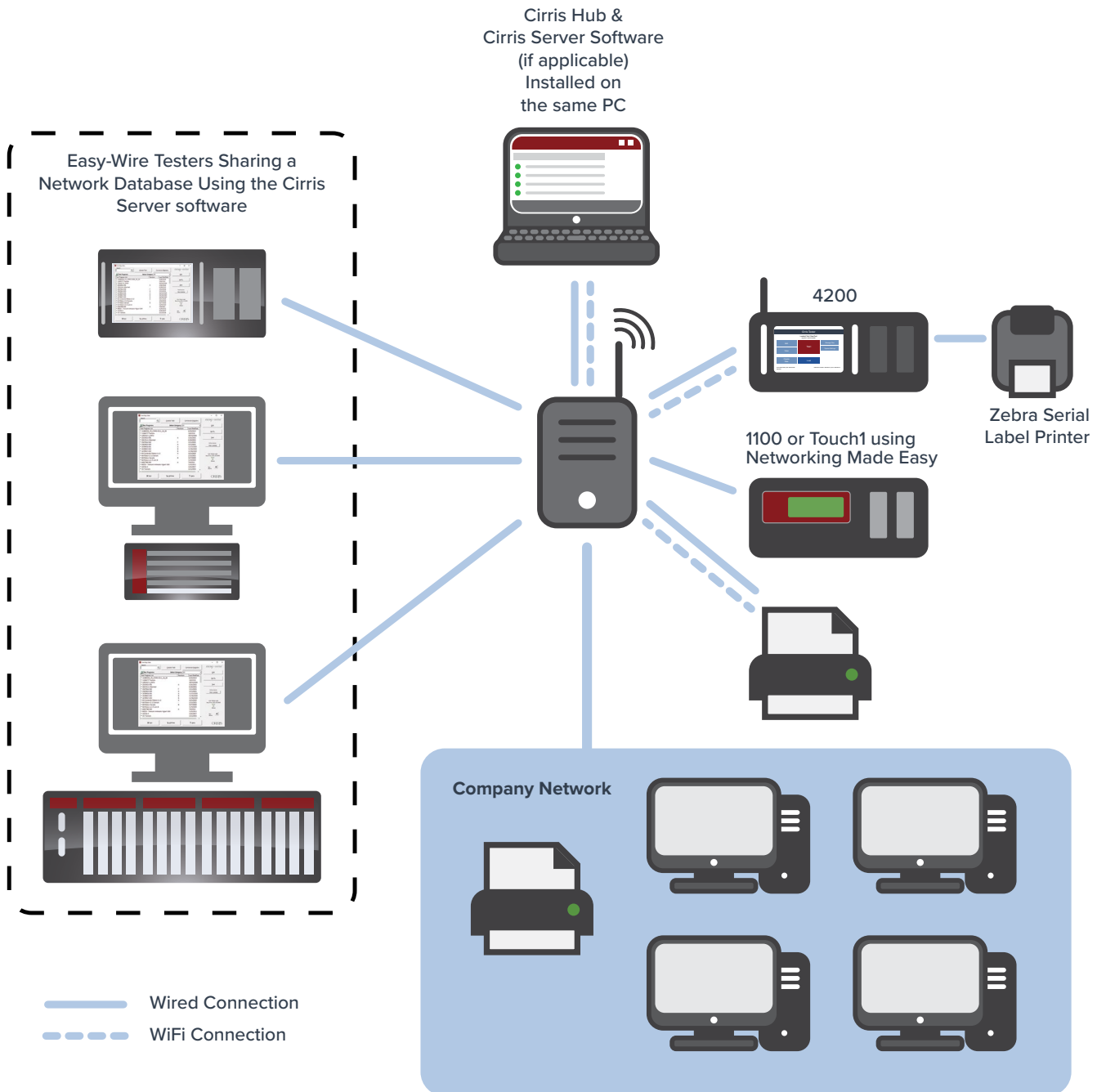
A simple, independent network can consist of as few components as a router, a PC, and a 4200 or Easy-Wire controlled tester. The PC need not be connected to the Internet. If reports will be printed from 4200 testers via the network, the printer can be connected to a PC, or if the printer has the capability, it can connect directly to the network. Such a setup is fairly straightforward to configure and most often does not require the assistance of an IT professional.



1.2.2 Company Network

A company network is most often managed by an IT professional or by a person with networking knowledge and experience. The PC on which the Hub is installed requires access to the company network and the user will require administrative rights during the installation.

If you are currently using the Cirris Networking Made Easy software to network 1100 Series testers and/or Touch 1 testers, install the Cirris Hub Software on a PC that can reference the directory where the test programs are stored. This will allow all the testers to access the same programs.



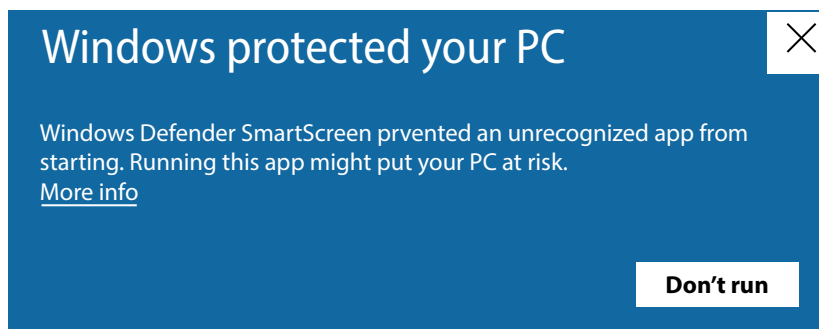
2. Installation

The Hub software installation is included on the USB flash drive that was supplied with a new Cirris tester and it can also be found on the [Cirris web site](#). The installation includes two applications - the Cirris Hub and the The Cirris Hub Configuration app. The software can be installed on a network server or on a networked PC. It may require the services on an IT professional to configure Hub access.

Note: When upgrading an older version of the Hub software, it's best practice to uninstall the older version before installing the new version. None of the existing files or configuration settings will be lost in the process.

2.1 Software Installation

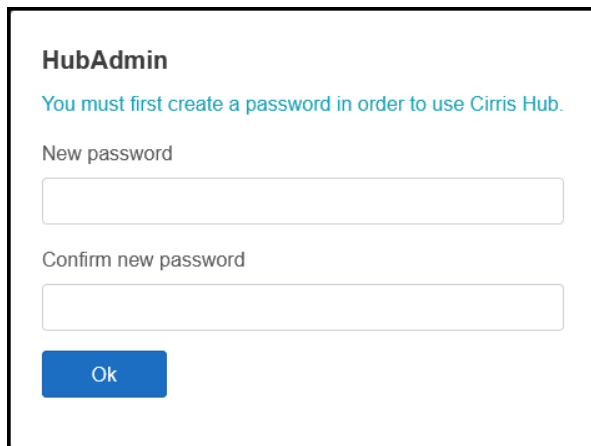
1. On the flash drive supplied with the tester, from the main Product Documentation and Software menu, select the 4200 or 4250 tester. Open the tester's Supporting Documentation and Software section and click the button to Save the Cirris Hub Install EXE (the actual filename will include the version number of the software - for example, "CirrisHub_2021.3.1.8001_Install.exe"). Open the file to start the installation and follow the presented prompts.
2. You may find that Windows Defender prevents the installation from running initially. If this happens, click on the **More Info** link and then **Run Anyway** in the subsequent window. If the installation doesn't start initially, and this screen is not visible, check the Windows taskbar for a pulsating Windows Defender Shield icon and click on it to view this window.



3. Portions of the software initialization may take several minutes to complete. During the setup, the installation may seem stalled or the screen may appear frozen. If this happens, check for a new window open behind an existing window or look for a new icon on the Windows taskbar and select it to view the associated window.
4. Three services are installed at the same time the Cirris Hub Software is installed if they're not already installed on the PC - "Microsoft.Net Framework," "Microsoft.Net Core," and "Microsoft Visual C++."). These programs are necessary to perform some of the functions provided by the Hub. Select the check-box to agree to the terms and conditions of these free software systems to continue the installation.
5. After the installation finishes, shortcuts for the Cirris Hub and the Cirris Hub Configuration can be found on the desktop. You may be prompted to restart the PC to complete the installation of the supporting applications.

2.2 Initial Startup

After installing the Hub Software, the interface automatically opens in the PC's default browser and directs the user to create a password. If a restart was required and the password wasn't set prior to the restart, the message requiring the user to create a password will open the first time the Hub interface is opened manually, which can be done using the shortcut on the desktop. If the shortcut is not visible, the Cirris Hub application can be found in the list of Cirris Systems Corporation programs by clicking on the Windows start button and then expanding the Cirris Systems group.



The image shows a dialog box titled "HubAdmin". Inside the dialog, there is a message in blue text: "You must first create a password in order to use Cirris Hub." Below this message are two text input fields. The first is labeled "New password" and the second is labeled "Confirm new password". At the bottom of the dialog is a blue button with the text "Ok".

2.3 Connecting Testers

The application has a sidebar menu and it will open to the **Tester Stations** page. If the tester and the Hub are on the same subnet, the Hub will recognize testers automatically and they will appear in the list of testers. If this is not the case, and you're using a simple network, to connect the tester to the Hub, select the **Server Status** page on the sidebar menu. The **Server Address** category should be shown with an Online status followed by the server IP address and port separated by a colon. This information will be used to configure the tester when connecting to the Hub.

2.3.1 4200 Testers

On 4200 Series testers, from the **Main Menu > System Settings > Network Settings**. On the Network Settings screen:

1. Set the Mode to Ethernet or WiFi as appropriate.
2. If using an Ethernet connection, skip to step 6. If using WiFi, refreshing the **SSID** (Service Set Identifier) will search for and list available WiFi networks. Using the SSID drop down box select the preferred network.
3. Select the appropriate **Auth Mode** (Authorization Mode). On simple networks this will typically be a **Pre-shared Key**.
4. If using the **Enterprise** Authorization Mode enter a **Username**. If using a **Pre-shared Key** no entry will be allowed in this field.
5. Enter the WiFi **Password**.
6. If the **Server** and/or **Port** fields are left empty, the tester will attempt to auto discover either or both and connect to the Hub. Alternatively, or if the auto discovery is not successful, the Server and Port can be found on the **Server Status Page** of the Hub Interface. The default port is 12568.
7. If using a CA certificate, copy the certificate to the internal memory of the tester or to the Hub's Network Files folder (F drive). Then tap **Add CA Cert**, navigate to the certificate on the **Select File to Load** screen that opens and select **Load**.
8. When ready, select **Done** to connect to the Hub.

The screenshot shows the 'Network Settings' screen with the following fields and controls:

- Mode:** A dropdown menu currently set to 'Ethernet'.
- SSID:** A dropdown menu currently set to 'None', with a 'Refresh' button to its right.
- Auth Mode:** A dropdown menu currently set to 'Pre-Shared Key'.
- Username:** A text input field with the placeholder text 'Enter Username'.
- Password:** A text input field with the placeholder text 'Enter Password'.
- Server:** A text input field with the placeholder text 'Enter Server IP'.
- Port:** A text input field with the placeholder text 'Enter Server Port'.
- Add CA Cert:** A button located below the Port field.
- Cancel** and **Done:** Two buttons at the bottom of the screen.

2.3.2 Easy-Wire Testers

To access information about an Easy-Wire tester, the Hub must be installed on the same PC as the Easy-Wire database. To access information about multiple Easy-Wire testers, those testers must share a network database using the Cirris Server software and the Hub application must be installed on the PC acting as the Easy-Wire server. The Hub will automatically establish communication with the database using the Cirris Data Access Server which is installed when the Easy-Wire station software or the Cirris Server software is installed. Keep in mind, that although the Hub application must be installed on the same PC, the Hub interface can be accessed from another PC, mobile phone, tablet or other devices by entering the Hub Server IP address into the address line of a browser.

If the Easy-Wire database is not on the same PC as the Hub, the **Cirris Data Access Server** status displayed on the **Server Status** page of the Hub will be **Offline**.

2.4 PC Settings

To provide uninterrupted access to the Hub by the testers, the PC running the Hub software should not be allowed to enter sleep mode. In most instances, installing the Cirris Hub web application will prevent Windows from prompting the sleep mode in order to keep connected users (the testers) from losing their work. However, if it becomes an issue, the Power & Sleep options in Windows Settings can be adjusted as necessary.

On company networks it may be beneficial to assign the Hub server a static IP address. However, the testers can automatically discover the server's IP address so this is not a requirement on simple networks.

3. Hub Interface

The Cirris Hub is a web application which means the Hub Interface will open as a new tab in the PC's default browser. The interface can be opened using the shortcut on the desktop. If the shortcut is not visible, the Cirris Hub application can be found in the list of Cirris Systems Corporation programs by clicking on the Windows start button and then expanding the Cirris Systems group.

There are five selections on the sidebar menu.

Note: The Hub Interface does not need to be open for testers to access the Hub as its services run in the background even when the interface is closed.

3.1 Tester Stations

The **Testers** page shows which testers are connected to Cirris Hub and provides details about each unit including:

- **Status - Online, Offline, Testing, Editing, or Idle.** The status messages available depends on the type of tester. **Online** means the tester is powered on and connected to the Hub. **Offline** means the unit is either powered off or not connected to the Hub. **Testing** means the tester is currently testing. **Editing** means that an Easy-Wire tester has a test program open in the Easy-Wire test program editor. **Idle** means an Easy-Wire tester is Online but is neither Testing or Editing.
- **Model** - The type of tester ("EW" is used as a prefix for testers controlled by the Easy-Wire software)
- **Name** - The default name can be edited using the Hub or the tester's user interface. The Hub can only be used to change the tester name when the tester's status is Online. The name will sync between the Hub and tester regardless of where the change is made.
- **Serial Number** - The serial number of the tester is assigned at the factory and is fixed.
- **Cal Verified** - Syncs from tester and shows the date the unit was last either calibrated at the factory or the date on which the last successful performance verification was performed.
- **Cal Due** - The calibration due date is synced from the tester and can be updated when the unit is returned for calibration or after running a successful performance verification on the tester.
- **Software** - For Easy-Wire testers the software version controlling the tester (4200 testers do not have a software version).
- **Firmware** - For 4200 testers, the installed firmware version (Easy-Wire testers do not provide a firmware version).
- **Edit** - Clicking on the Pencil icon will open the **Configure Tester Station** window which allows the user to update the tester name and configure some other options depending on the tester type.

Status	Model	Name	Serial Number	Cal Verified	Cal Due	Software	Firmware	Edit
Online	4250	4250 #1	01038609	15-Jan-2021	15-Jan-2022		2020.4.1.644	
Online	4250	4250 #2	01038687	15-Jan-2021	15-Jan-2022		2020.4.1.644	
Testing	EW:CR	DEPT 3067		19-Feb-2021	19-Feb-2022	2021.2.0.8000		

3.1.2 Configure Tester Station

The settings available in the **Configure Tester Station** window vary by tester type.

4200 Configuration Options

The appearance and function of the **Configure Tester Station** window also varies depending on the status of the tester. If either 4200 testers are **Offline**, the tester name cannot be edited, but the **Forget Tester** button will be functional. If the tester is **Online**, the opposite is true - the tester name can be edited but the **Forget** button will not be functional. In both cases the network printers can be assigned.

The **Forget** option is typically used to remove testers that are no longer in service or those that will no longer be connected to this installation of the Cirris Hub.

Network printers for 4200 testers are designated in the **Configure Tester Station** window and can be edited regardless of whether the tester is **Online** or **Offline**. When adding a report to a 4200 test program, the user can select the destination printer including Network Printer 1 or 2, or Local printer 1 or 2. For example, in the same test program the Test Report could be directed to print on Network Printer 1 and the Run Report to Network Printer 2.

- **Print to Pdf (Reports Folder)** and **Print to Text File (Reports Folder)** are options available for network printers. Either saves the designated file to the **Reports Folder**, the path for which is shown under **Reports Folder** on the **Server Status** page. The location of the folder can be changed using the **Cirris Hub Configuration** application (See [Section 4](#)).
- Selecting **Default** as a **Network Printer** sends reports to the printer selected as the **Default** on the **Network Printer** page.

The **Network Stats** option, available for 4200 testers, opens a window that displays information about the network connection between the Hub and the tester, including the tester IP address.

- Selecting **Reset** returns all the network statistics to zero.
- Selecting **Refresh** updates the network statistics with current data.
- Selecting **Close** returns the user to the **Configure Tester Station** window.

Configure Tester Station

Name

Model: 4250
Serial Number: 01038609
Firmware Version: 2019.4.1.28
Hardware Version: 39705.1.D
Calibration Verified: 27-Apr-2020
Calibration Due: 27-Apr-2021
Status: **Online**

Network Printer 1

Network Printer 2

Station Network Stats

Wireless: 192.168.1.243:49153
Connections: 1
Reconnects: 0
Disconnects (Abort): 0
Disconnects (Graceful): 0
Processed commands: 551
Total messages: 552
Running Time(d/h/m/s): 00:00:46:04

Easy-Wire Testers

The Hub displays information reported by testers controlled by the Easy-Wire software including CR, CH2, and Easy-Touch testers. The Configure Tester Station window does not provide tools for editing Easy-Wire tester options. However, if the tester status is **Testing** or **Editing**, it displays the **Active Test** in addition to information also available on the Tester Stations page.

Configure Tester Station

Name
Dept 3067

Model: EW:CR
MachineID: MC302
Software Version: 2021.2.0.8000
Calibration Verified: 19-Feb-2020
Calibration Due: 19-Feb-2020
Status: **Testing**
Active Test: 6432786-503

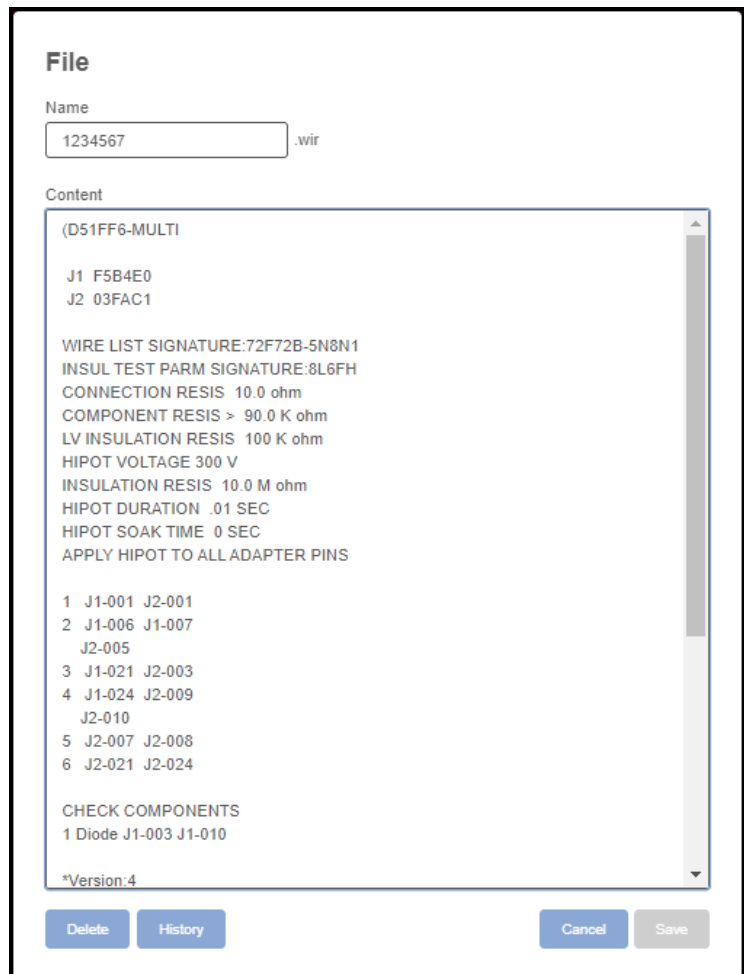
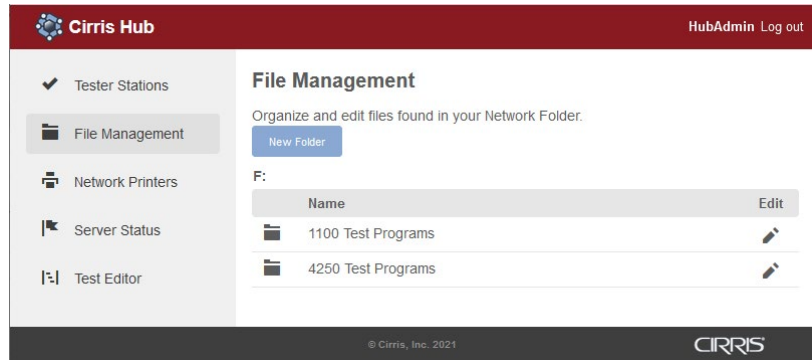
Close

3.2 File Management

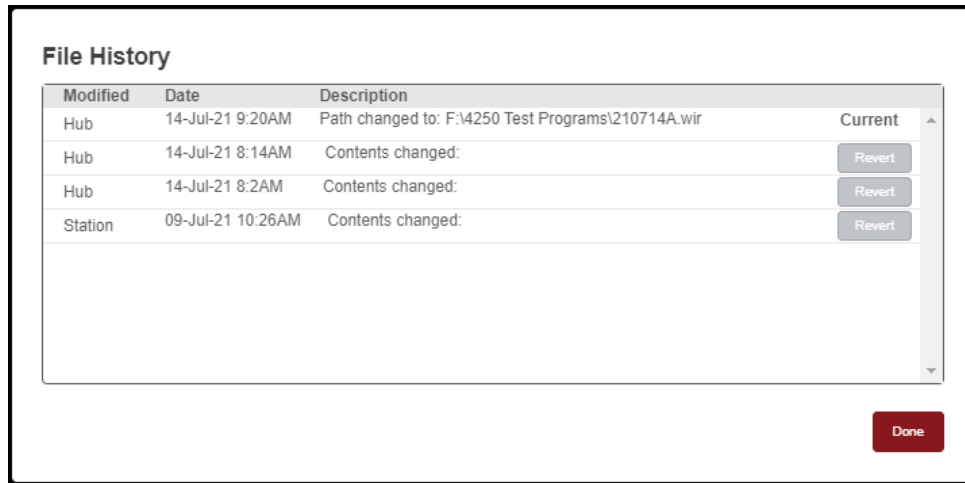
The **File Management** page provides the capability to organize and edit 4200/4250 test programs. The page shows the folders and files in the network location shared by the testers connected to the Hub. This location is referenced as the “F” drive by both the Hub and the testers, regardless of the drive letter that’s assigned in the Windows operating system. The default location of the folder can be changed using the Hub Configuration application.

On this page:

- Double clicking on any folder will open the folder.
- Clicking on the pencil icon in the **Edit** column associated with any folder will open a window that allows the name of the folder to be edited. If the directory is empty (i.e. it includes no files or folders), it can also be deleted in the edit window.
- When in a subdirectory, clicking on **F:** will return the user to the top of the directory tree.
- Selecting the **New Folder** button will add a new folder in the active directory.
- Double clicking on a filename, or selecting its corresponding pencil icon in the **Edit** column, will open that file in the Hub text editor. Test programs must use the “.wir” file-name extension to be recognized by testers. When any edits are made, the **Save** button becomes active and must be used to save changes. See the tester’s associated User Manual for information on its test program file structure and requirements.
- The filename can be changed by entering a new name in the **Name** text box. The filename extension cannot be changed. Changing the filename removes the previous filename from the list of programs. However, the revision history continues to be tracked under the new filename (see **History** on the following page).
- Clicking the **Delete** button will delete the file.
- Clicking **Cancel** will close the file without saving changes.
- Click the **Save** button to save changes.



- Clicking the **History** button opens a new window listing revisions made to the file with details including whether the revision was made on the Hub or on a test station, the date of each revision and a brief description of the change. The current version is identified. Clicking the **Revert** button associated with any version will restore that version to **Current** (for-use) status.

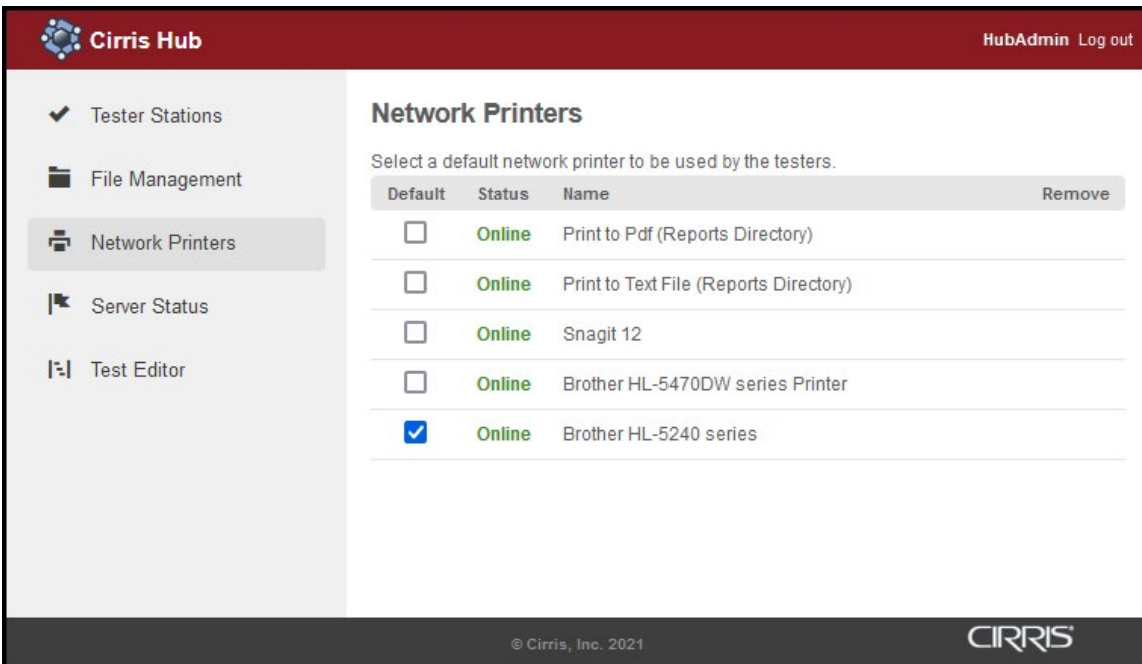


Please note that test program files that are marked **Read-Only** in Windows can be downloaded, edited on the tester and saved. The changes will be saved on the tester and the edited program can be used. However, the changes **WILL NOT BE SAVED** to the F drive on the network. Therefore, the next time the test program is loaded from the F drive, any changes made previously will not be included. It's preferable to use the tester's security capabilities to prevent users from editing test programs instead of using the Windows Read-Only function. On 4200 testers, use the **Security Utility** to prevent operators from editing and/or saving test programs on the tester.

3.3 Network Printers

The **Network Printers** page displays a list of printers available to the Hub on the network. Designating a printer as the **Default** will direct printing to this printer from 4200 test programs that include a report configured to print to the printer designated **Default** in the **Configure Tester Station** window (see [Section 3.1.2](#)).

Printers that have been removed in Device Settings of the Windows operating system can be removed from the list of Hub printers by selecting the trash can icon associated with that printer in the **Remove** column. The trash can icon will only appear after the printer has been removed in Windows.



3.4 Server Status

The Server Status page provides detailed information about the Hub software. **No changes can be made on this page. Instead, use the Cirris Hub Configuration application on the host computer to make changes.**

The displayed information includes:

- **Software Version** - The version of the Hub Software.
- **Server** - The IP address of the host computer, the port used by the Hub software, and the Online/Offline status.
- **Cirris Data Access Server** - The TCP for the Easy-Wire database data access server, the interval at which the Hub updates information supplied by the server, and the Online/Offline status.
- **Network Folder** - The path for the folder in which test programs shared by the testers are stored.
- **Data Collection Folder** - The path for the directory in which data collection files are stored (requires the use of the 4200 optional data collection feature).
- **Reports Folder** - The path for the folder in which reports printed to a PDF or text file are saved.
- **Logging Level** - The logging level currently specified. **Normal Operation** is typical; **Debug** is only used for troubleshooting.

Cirris Hub HubAdmin Log out

✓ Tester Stations

📁 File Management

🖨️ Network Printers

🚩 **Server Status**

📄 Test Editor

Server Status

See the present Hub status. If changes are required, run Cirris Hub Configuration on the server.

Software Version
21.2.1.1086

Server **Online**
192.168.1.246:12568

Cirris Data Access Server **Online**
tcp://127.0.0.1:55333, Updates every 30 seconds

Network Folder **Online**
C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder

Data-Collection Folder **Online**
C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder\spc_data

Reports Folder **Online**
C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder\reports

Logging Level **Information**
(Normal operation) Logs errors and important system events.

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3.5 Test Editor

The Test Editor is in the beta/Preview stage of development. It can be used with a limited number of 1100 and 4200/4250 test programs, but it should not be used to edit programs for production testing.

Note: See the corresponding tester User Manual for additional information about test programs and test parameters.

Test programs for 1100 and 4200/4250 testers that use only the following adapters are included:

- AHED-64 / HHED-64
- ABRM-64 / HBRM-64
- ADBP-25 / HHBP-25
- AHED-SS / HHED-SS
- AMDP-62 / HMDP-62
- A1KM-64 / A2KM-64 / H2KM-64
- AMJ8-08

Double-clicking on a test program name or clicking the on its corresponding pencil icon opens the program in the editor.

The screenshot shows the Cirris Hub interface. The top navigation bar includes the Cirris Hub logo and 'HubAdmin Log out'. The left sidebar contains navigation items: Tester Stations, File Management, Network Printers, Server Status, and Test Editor. The main content area is titled 'Test Editor (Preview)' and contains the text 'Edit discovered test programs listed below.' with a 'Learn More' button. Below this is a table with the following data:

Tester	Fullpath	Edit
4200	F:\4250 Test Programs\210715B.wir	
4200	F:\4250 Test Programs\64 Ribbon RevA.wir	
4200	F:\4250 Test Programs\64Ribbon.wir	
4200	F:\4250 Test Programs\64RibbonData.wir	

The footer of the interface shows '© Cirris, Inc. 2021' and the Cirris logo.

When a test program is open, the Test Editor includes four tabs that group test parameters into editable sections including **Test Setup**, **Reports**, **Wiring**, and **4Wire Pairs**.

3.5.1 Common Editor Options

Several functions are accessible regardless of the open tab:

- **Name** - A new test program name can be entered in the corresponding text box.
- **Delete** - Deletes the open test program.
- **History** - Opens a new window that displays the revision history of the program.
- **Cancel** - Closes the Test Program File without saving changes.
- **Save** - Saves changes and closes the Test Program File.

Test Program File

Name

Test Setup Reports Wiring

Equipment

Cirris 4200, Used TP:128 	HHED-64 D507F1, Port:1 	HHED-64 D507F1, Port:3 
---	--	---

Parameters

CONNECTION RESIS <input type="text" value="10.0 ohm"/>	LV INSULATION RESIS <input type="text" value="100 K ohm"/>
---	---


Delete History

Cancel Save

3.5.2 Test Setup

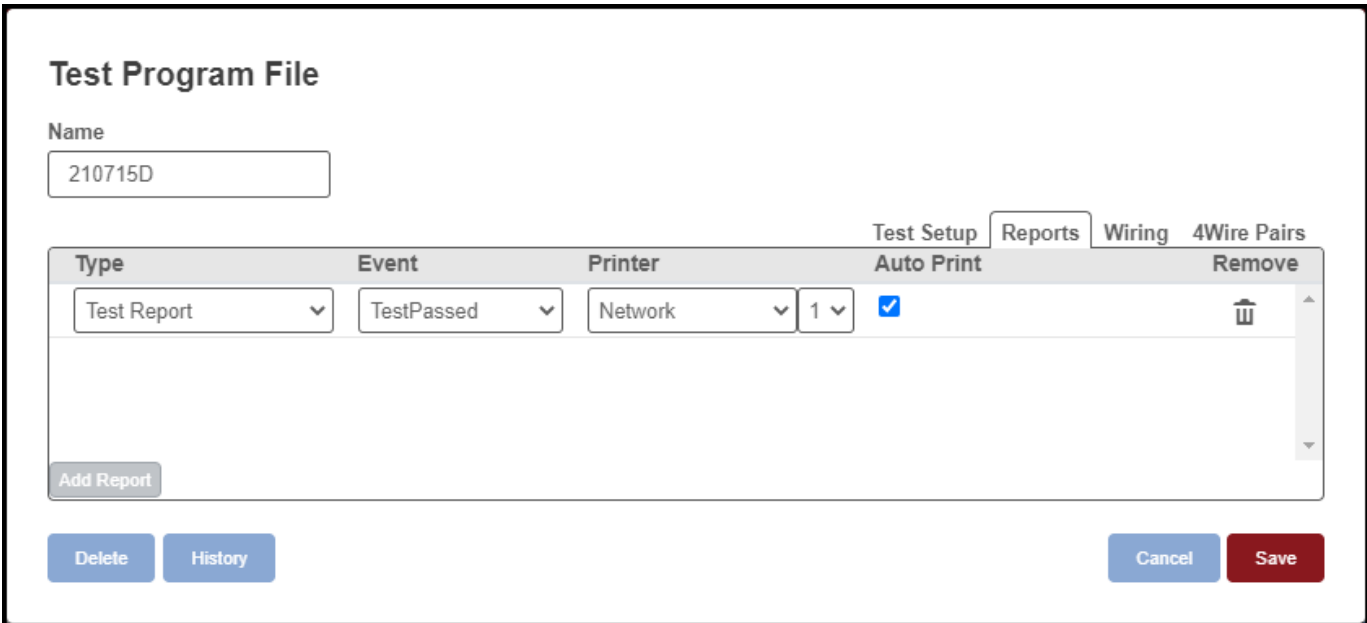
The Test Setup tab displays a description of the tester on which the program is used. The description includes the number of test points available in the test program, which is a function of the adapters specified in the program. Graphics of the specified adapters are shown to the right of the tester description.

Editable fields include:

- **CONNECTION RESIS (Connection Resistance)** - The maximum acceptable resistance of a connection can be set within the range supported by the tester. If a value outside the supported range is entered, the field is highlighted in red and the **Save** button becomes inactive. 
- **LV INSULATION RESIS (Low Voltage Insulation Resistance)** - The minimum acceptable resistance between nets or points that should be isolated can be set within the range supported by the tester. If a value outside the supported range is entered, the field is highlighted in red and the **Save** button becomes inactive.

3.5.3 Reports

The **Type** of report, the triggering **Event**, and the **Printer** to which the report is directed are all selected or changed using drop down menus. If **Auto Print** is checked the report will print automatically depending on the triggering **Event**. Reports can be added to the test program by clicking the **Add Report** button. Selecting the Trash Can icon will delete the corresponding report from the program.



The screenshot shows the 'Test Program File' dialog box with the 'Reports' tab selected. The 'Name' field contains '210715D'. The 'Reports' tab is active, showing a table with columns: Type, Event, Printer, Auto Print, and Remove. The table contains one row: Test Report, TestPassed, Network, 1, and a checked checkbox. Below the table is an 'Add Report' button. At the bottom of the dialog are 'Delete', 'History', 'Cancel', and 'Save' buttons.

Type	Event	Printer	Auto Print	Remove
Test Report	TestPassed	Network	<input checked="" type="checkbox"/>	

3.5.4 Wiring

Test instructions can be edited by double-clicking the instruction or by clicking on the Pencil icon. New instructions, including component instructions, can be added by using the corresponding **Add** button.

The screenshot shows the 'Test Program File' interface. At the top, there is a 'Name' field containing '210715D'. Below this is a tabbed interface with tabs for 'Test Setup', 'Reports', 'Wiring', and '4Wire Pairs'. The 'Wiring' tab is active, displaying a table of test instructions. The table has three columns: 'Type', 'Test-Points', and 'Details'. Each row also has an 'Edit' column with a pencil icon. Below the table are five 'Add' buttons: 'Add Wire', 'Add 4Wire', 'Add Resistor', 'Add Capacitor', and 'Add Diode'. At the bottom of the interface are 'Delete', 'History', 'Cancel', and 'Save' buttons.

Type	Test-Points	Details	Edit
Multi-Point NET	J1-42, J1-55, J1-56		
Wire	J1-47, J1-48		
Wire	J1-61, J1-62		
Wire	J1-01, J1-02		
Wire	J1-09, J1-10		
Resistor	J1-16, J1-24	R1 (295.98 Ohm, 10%)	
Capacitor	J1-03, J1-04	C1 (1 nF, 10%)	
Diode	J1-05, J1-06	D1	

Three columns are used to describe the instructions, including:

- **Type** - Each Instruction type has a unique editing window which is accessed by double-clicking the instruction or by clicking the Pencil icon in the **Edit** column. The parameters available in the Edit window are dependent on the instruction type. Common functions in each include **Remove**, which deletes the instruction, and **Close** which closes the edit instruction window in its current state, including any changes.
- **Wire** - Specifies a two-point net. The pass/fail threshold is set under the **Test Setup** Tab as the **Connection Resistance**. Clicking on the Convert to Multi-Point Net will retain the existing test points in the NET and opens the Multi-Point NET edit window. Test points can be changed using the corresponding drop-down menu.

The screenshot shows the 'Wire' edit window. It has two 'Test-Point' dropdown menus, one containing 'J1-47' and the other containing 'J1-48'. Below the dropdowns are three buttons: 'Remove', 'Convert To Multi-Point NET', and 'Done'.

- **4Wire** - Specifies a 4-Wire test between two points using a maximum resistance as the pass/fail threshold. Visible points from 4-Wire pairs specified under the **4Wire Pairs** Tab are available to use in 4-Wire instructions.

- **Multi-Point NET** - Specifies nets that include more than two points. New Multi-Point Nets can be added using the **Add Wire** button, or when editing an existing **Wire** instruction, by using the **Convert to Multi-Point NET** button within the instruction. The pass/fail threshold is set under the **Test Setup** Tab as the **Connection Resistance**. Test points can be changed using the corresponding drop-down menu.

Multi-Point NET

Test-Points	Remove
J1-42	
J1-55	
J1-56	

Remove
Add Test-Point
Done

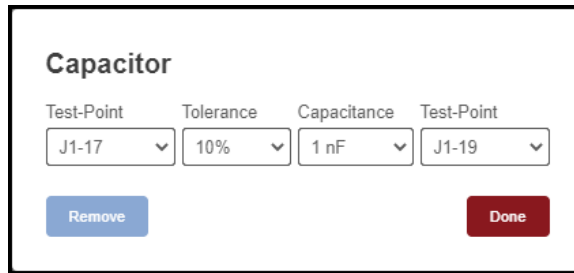
- **Resistor** - Specifies a resistor between two points with a nominal value and a percentage tolerance. Test points, the tolerance, and the nominal value can be changed using the corresponding drop-down menus.

Resistor

Test-Point	Tolerance	Resistance	Test-Point
J1-14	10%	330 Ohm	J1-15

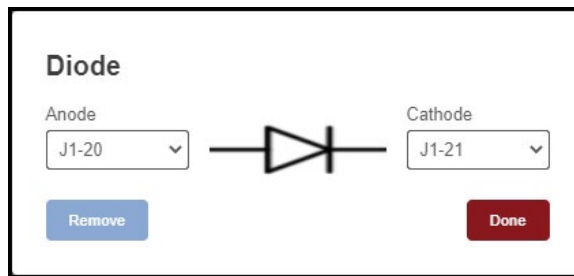
Remove
Done

- **Capacitor** - Specifies a capacitor between two points with nominal value and a percentage tolerance. Test points, the tolerance, and the nominal value can be changed using the corresponding drop-down menus.



The image shows a dialog box titled "Capacitor". It contains four drop-down menus: "Test-Point" (set to J1-17), "Tolerance" (set to 10%), "Capacitance" (set to 1 nF), and "Test-Point" (set to J1-19). Below the menus are two buttons: "Remove" (blue) and "Done" (red).

- **Diode** - Specifies a diode between two points with the first point as the anode side and second point as the cathode side. Test points can be edited using the corresponding drop-down menu. The diode test uses preset parameters that cannot be edited. See the tester's User Manual for more information.



The image shows a dialog box titled "Diode". It contains two drop-down menus: "Anode" (set to J1-20) and "Cathode" (set to J1-21). Between the menus is a diode symbol. Below the menus are two buttons: "Remove" (blue) and "Done" (red).

- **Test Points** - Lists the test point associated with each instruction.
- **Details** - Displays descriptions and parameters for component instructions.

3.5.5 4Wire Pairs

All available 4-Wire pairs are listed with Visible and Hidden points defined. Use the check box to make an available pair and active 4-Wire pair. If a pair is selected that includes a test point already being used in a test instruction, the Save button becomes inactive and the corresponding instruction under the Wiring tab is highlighted and the involved test point is marked Invalid. The issue can be resolved by removing the 4-Wire pair designation or by editing the invalid point under the Wiring tab.

Test Program File

Name:

Test Setup Reports Wiring **4Wire Pairs**

Active	Test-points
<input type="checkbox"/>	Visible (J1-01), Hidden(J1-02)
<input type="checkbox"/>	Visible (J1-03), Hidden(J1-04)
<input type="checkbox"/>	Visible (J1-05), Hidden(J1-06)
<input type="checkbox"/>	Visible (J1-07), Hidden(J1-08)
<input checked="" type="checkbox"/>	Visible (J1-09), Hidden(J1-10)
<input checked="" type="checkbox"/>	Visible (J1-11), Hidden(J1-12)
<input checked="" type="checkbox"/>	Visible (J1-13), Hidden(J1-14)
<input type="checkbox"/>	Visible (J1-15), Hidden(J1-16)
<input type="checkbox"/>	Visible (J1-17), Hidden(J1-18)

Test Program File

Name:

Test Setup Reports Wiring **4Wire Pairs**

Type	Test-Points	Details	Edit
Multi-Point NET	J1-42, J1-55, J1-56		
Wire	J1-47, J1-48		
Wire	J1-61, J1-62		
Wire	J1-01, J1-02		
Wire	J1-09, Invalid		
Resistor	J1-16, J1-24	R1 (295.98 Ohm, 10%)	
Capacitor	J1-03, J1-04	C1 (1 nF, 10%)	
Diode	J1-05, J1-06	D1	

4. Cirris Hub Configuration

The Cirris Hub Configuration application is installed at the same time as the Hub software and it requires Windows administrative rights to open. A desktop shortcut for the app is created at the time of installation. If the shortcut is not visible, the Cirris Hub Configuration application can be found in the list of Cirris Systems Corporation programs by clicking on the Windows start button and then expanding the Cirris Systems group.

The application provides the capability to view and edit the Hub configuration settings. The **Apply Changes** button becomes visible and active after making any edits. Use the function to save changes before closing the application. The **Restart Server** and the **Reset HubAdmin Password** buttons become inactive when unsaved changes exist.

The screenshot shows the Cirris Hub Configuration application window. The title bar reads "Cirris Hub Configuration". The window contains several configuration sections:

- Server Address:** A text field showing "Detected(192.168.1.246)" and a manual input field containing "192.168.1.246".
- Station Communication Port:** A text field showing "Default(12568), Suggest(49155-65535)" and a manual input field containing "12568".
- Network Folder:** A text field containing "C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder" and a "Browse" button.
- Data-Collection Folder:** A text field containing "C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder\spc_data" and a "Browse" button.
- Reports Folder (print-to-file):** A text field containing "C:\Users\Public\Documents\Cirris\Cirris Hub\NetworkFolder\reports" and a "Browse" button.
- Logging Verbosity:** A "Log Level" dropdown menu set to "INFO (normal operations)" and an "Open Logs in File Explorer" button.
- Cirris Data Access:** An "Update Interval" dropdown menu set to "30 (second)".

At the bottom of the window, there are four buttons: "Restart Server", "Reset HubAdmin Password", "Apply Changes" (circled in red), and "Close".

4.1 Server Address / Station Comm Port

The Server Address and the Station Communication Port are displayed in the configuration app and on the Server Status page of the Hub. However, the address and port can only be edited in the configuration app.

The detected Server Address is also displayed and is a useful reference when troubleshooting communication issues between the Hub and tester stations. The Server Address can be manually edited to match the detected address or otherwise edited as required.

On 4200 Series testers the port is set manually.

4.2 Hub Folders

The paths for Hub's **Network Folder**, the **Data-Collection Folder**, and the **Reports Folder** are displayed in the configuration app and on the **Server Status** page of the Hub. The locations of each folder can be edited in the Hub Configuration app by using the associated **Browse** buttons to navigate to, and select, a preferred location. Click on **Apply Changes** to save the changes.

- **Network Folder** is the location in which 4200, 1100, and Touch1 programs are stored. Easy-Wire programs are stored in the Easy-Wire database.
- **Data-Collection Folder** is the location in which 4200 testers connected to the Hub store data collection files.
- **Reports Folder (print-to-file)** is the location in which 4200 testers connected to the Hub will store reports if the test program directs the report to be saved as a PDF or text file.

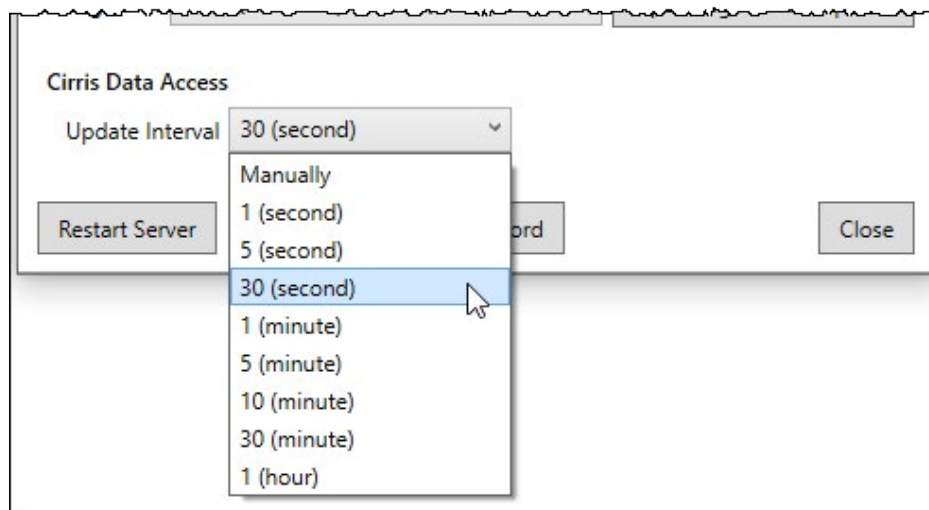
4.3 Logging Verbosity

The level of data logging for the Hub software can be changed for troubleshooting purposes. This is typically done on a temporary basis at the request of Cirris Technical Support or an IT professional in order to gather data that would be helpful in resolving communication or performance issues. The standard setting is **INFO (normal operations)**. The **DEBUG (used for support)** option is available on the drop down menu. The **DEBUG** setting increases the amount of data being collected. Therefore, it will negatively affect the performance of the system and shouldn't be used on a permanent basis. The path for the log folder is: C:\Users\Public\Documents\Cirris\Cirris Hub\Logs, which can be accessed by selecting **Open Logs in File Explorer**.

4.4 Cirris Data Access

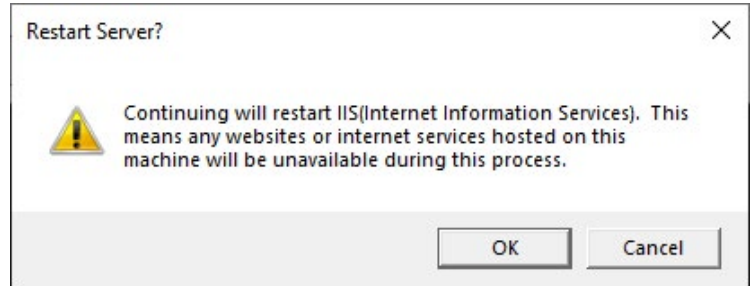
The Cirris Data Access Service supports communication with Easy-Wire testers and the Update Interval specified in the Hub Configuration application only affects the frequency of status updates for Easy-Wire testers listed on the Hub's Tester Stations page. The default interval is 30 seconds. Additional interval options are available from the drop down list. For more real-time status for Easy-Wire testers, the frequency can be changed to 5 seconds or 1 second. When set to Manually, the status of Easy-Wire testers is only updated when the page is opened or when the page is manually refreshed. Regardless of the Update Interval settings, the tester station status can be updated manually by refreshing the Hub Tester Stations page.

The Cirris Data Access Server Online/Offline status, tcp address and update interval is viewable on the Server Status page of the Hub.



4.5 Restart Server

The Restart Server function restarts the Internet Information Services (IIS) and is typically only used when troubleshooting communications problems. A message is displayed after clicking the button that warns the user that continuing will interrupt any websites or Internet services hosted on the PC. Click OK to continue. The Hub page may need to be reloaded to view the Hub interface after a server restart.



4.6 Reset Hub Admin Password

The Hub Administration Password can be reset from the Hub Configuration application. After clicking the Rest HubAdmin Reset button, a message is displayed warning the user that continuing will interrupt any websites or Internet services hosted on the PC. Click OK to continue.



When the Hub interface is next opened, or if the interface is already opened, a message requiring the user to create a new password will be displayed.

HubAdmin

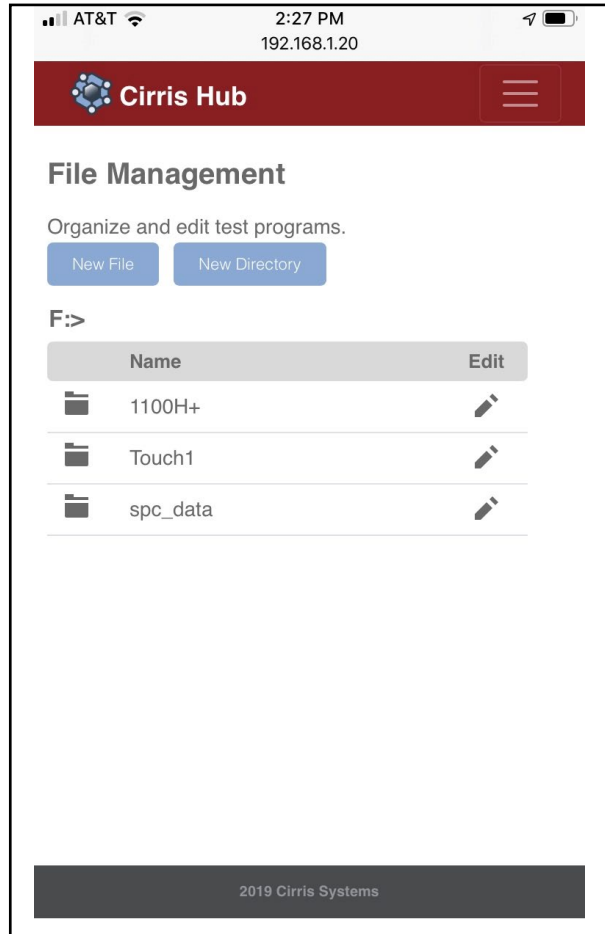
You must first create a password in order to use Cirris Hub.

New password

Confirm new password

5. Remote Access

The Cirris Hub can be accessed from remote devices, including mobile phones and tablets connected to the network, by entering the Hub Server IP address in the address bar of a browser. The same functions available on the host PC are available on remote devices.



6. Using a File Hosting Service

The Hub can support cloud-based file hosting services, such as OneDrive. However, the Hub only accesses local files. Therefore, services must synchronize files to a local drive. When the Hub access a local file, it won't necessarily prompt the hosting service to download a more current version of the file if one exists.

7. Help / Support

For assistance with any of the topics covered in this manual:

- In the United States contact our Technical Support staff at by email at TechSupport@cirris.com or by telephone at 1-801-973-4600.
- Outside the United States, visit the Contact page of the Cirris web site at cirris.com to find the nearest sales and support office.
- Visit www.cirris.com/learning-center to access articles on Cirris products and other testing subjects.

Cirris Hub User Manual
Version 2021.3.2



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