

# VeritiLink™ Remote Management Software

Version 1.0



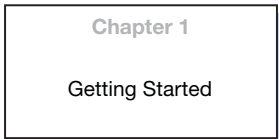
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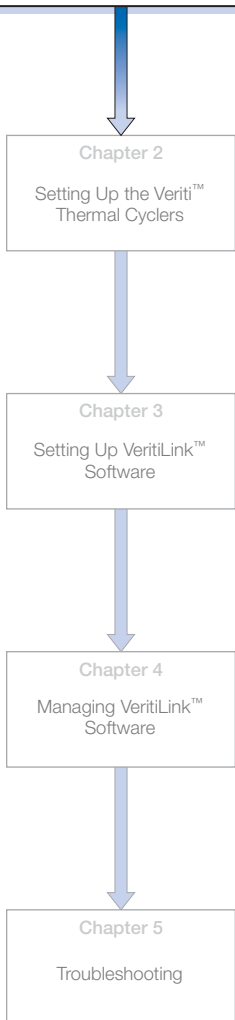
# 1

# Getting Started



This chapter covers:

- About VeritiLink™ Remote Management Software . . . . . 2
- Installation Overview . . . . . 3
- Network Configuration . . . . . 3



# About VeritiLink™ Remote Management Software

## **VeritiLink™ Software Features**

VeritiLink™ Remote Management Software (VeritiLink Software) is a web-based application that allows you to use your web browser to:

- Create and edit run methods stored on a computer or a thermal cyclers.
- Perform and monitor thermal cycling runs on one or more networked Veriti™ Thermal Cyclers.

In addition, VeritiLink Software can:

- Monitor the verification status of your thermal cyclers and remind you when verifications are due.
- Send email notifications when various run and instrument events occur on the thermal cyclers.

## **System Components**

### **Hardware Components (Supplied by the User)**

All components must be connected to a network (see “[Network Configuration](#)” on page 3).

- A NAT-enabled router or switch.
- Computers, including at least one server. The server computer can also act as a client.
- One or more Veriti Thermal Cyclers.
- Ethernet cables to connect the hardware components to the network.
- A network printer (optional).

### **Software Components**

- VeritiLink Software. This software includes the following:
  - Apache Derby Database Server v10.2.2
  - Memcache Cache Server v1.2.1
  - Java Runtime Environment (JRE) v1.5
  - Optionally, for systems with many clients and/or thermal cyclers, Apache Web Server v2.2
- Web browser on the server and each client computer

## Installation Overview

The following steps are required to set up the VeritiLink Software system. See the corresponding page number for detailed instructions.

- Set up the network for the thermal cyclers and server computer (see [page 3](#))
- Set up the thermal cyclers and connect them to the network (see [page 7](#))
- Install the VeritiLink Software server (see [page 25](#))
- Set up the VeritiLink Software with the Setup Wizard (see [page 28](#))

## Network Configuration

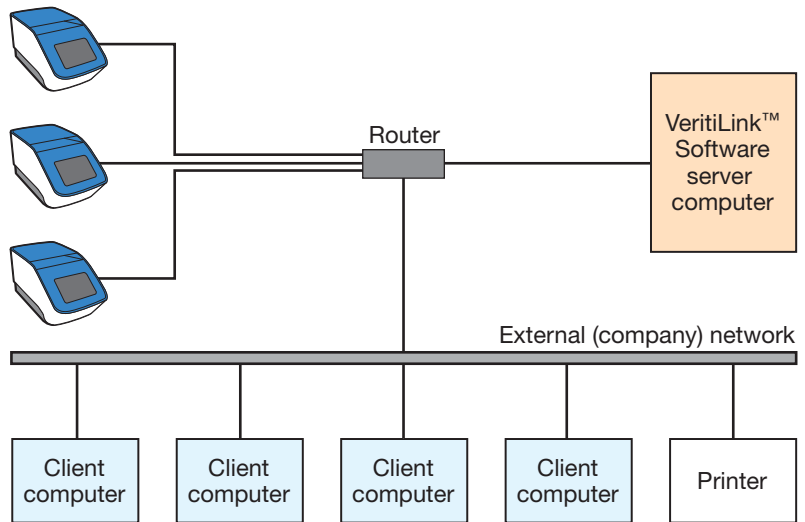
### Suggested Configurations

The suggested network configuration for VeritiLink Remote Management Software isolates the VeritiLink Software server and the thermal cyclers on their own mini-network. The router for this mini-network is connected to the company-wide network (see [Figure 1](#)).

This configuration minimizes interference to:

- The thermal cyclers and the server computer from other network traffic and/or attacks from external sources.
- The company-wide network from the high volume of broadcast traffic from the thermal cyclers.

Set up the router to allow http and https services on the server to be exposed to the external network through the router's IP address on the company network.



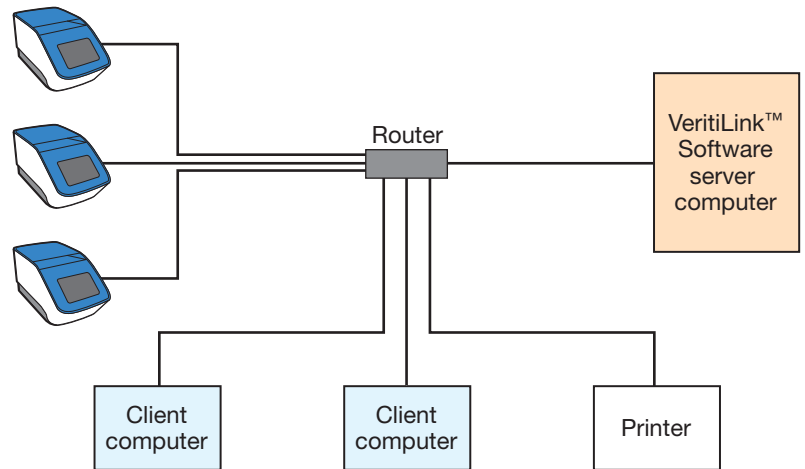
**Figure 1** Suggested network configuration, with connectivity to the company network

An alternative configuration is to connect the client PCs to the same router that the server and the thermal cyclers are connected to as shown in [Figure 2](#). If only a few thermal cyclers are present, the server computer can also act as a client.

---

**Note:** In this configuration, the VeriLink Software cannot send email, unless a mail server is also installed on the server computer.

---



**Figure 2** Alternative configuration, with client PCs connected to mini-network, isolated from the company-wide network

Other configurations are possible, but describing them is beyond the scope of this document. In general, be sure your configuration:

- Assigns the server and the thermal cyclers to the same subnet. The server cannot locate and monitor the thermal cyclers unless they are all on the same subnet.
- Meets your network's security requirements. The communication between the thermal cyclers and the VeritiLink Software is unencrypted.
- Allows the server computer to be available as required. (You may want to set up a redundant server in case the primary server fails unexpectedly. See the Apache documentation at [www.apache.org](http://www.apache.org) for instructions.)

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**IMPORTANT!** Using VeritiLink Software on a server or client computer that is connected to a virtual personal network (VPN) is not supported.

---

## Using Previously Networked Thermal Cyclers

You may have previously connected one or more Veriti Thermal Cyclers together by way of a switch in order to allow one thermal cyclers to start a run on another thermal cyclers.



If this is true, connect a computer to the same switch to act as the server. Install the VeritiLink Software on this computer and connect the switch to your external network as shown in [Figure 1](#).

### Using a Secure Network

VeritiLink Software uses the http protocol by default. You can set up your system to use the https protocol instead.

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**Note:** When you are installing VeritiLink Software, choose the Apache web server. You will need to acquire an SSL certificate and set up the Apache server using instructions available at [httpd.apache.org/docs/2.0/ssl](http://httpd.apache.org/docs/2.0/ssl).

---

### Setting the Server Name

VeritiLink Software is accessed via a URL entered in the client's web browser. The URL format is `http://server.domain:port_num`.

Ensure the server is configured on your network so that it is accessible using DNS.

By default, the port number is 80, but your system administrator can change this number as needed.

### Setting Up Email for the Server

The VeritiLink Software Server can send email messages about instrument events to users if the mail server on your network uses SMTP. In addition, the server uses email to send information such as user names and passwords to users.

Ask your system administrator for the IP address (or name) and port number for the outgoing mail server. If your outgoing mail server requires authentication, you may also need a user name and password.

You also need an email address for the server. You can either:

- Use the email address of the user who will act as the VeritiLink Software administrator.

*or*

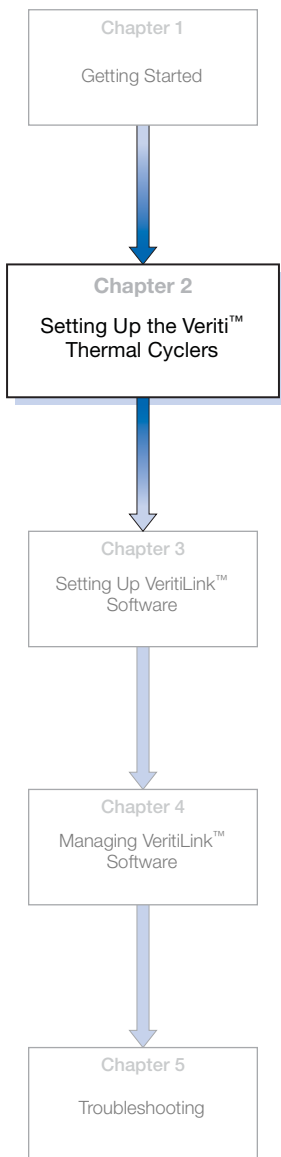
- Use an email account created specifically for the VeritiLink Software server. Ask your system administrator to create an account for the server. You need the email address for this account when you set up the software.

## 2

# Setting Up the Veriti™ Thermal Cyclers

This chapter covers:

- Overview . . . . . 8
- Instructions for Thermal Cyclers Already in Use . . . . . 8
- Upgrading the Firmware . . . . . 11
- Physically Connecting Thermal Cyclers to the Network . . . . 14
- Setting Up the Thermal Cycler . . . . . 15



## Overview

This chapter describes how to set up a Veriti™ Thermal Cycler so that it can be managed by VeritiLink™ Remote Management Software.

For new Veriti Thermal Cyclers, follow these instructions:

- “Upgrading the Firmware” on page 11
- “Physically Connecting Thermal Cyclers to the Network” on page 14
- “Setting Up the Thermal Cycler” on page 15

If you already use a Veriti Thermal Cycler, please read “Instructions for Thermal Cyclers Already in Use” on page 8.

## Instructions for Thermal Cyclers Already in Use

If you already use one or more Veriti Thermal Cyclers in your lab, perform the following actions before you attempt to manage them with VeritiLink Software.

- Update the firmware to version 1.2.0 (or greater) (see “Upgrading the Firmware” on page 11).
- If the thermal cycler(s) are not already connected to the network, connect them (see page 14).
- Change the setting in the Security screen to allow VeritiLink Software access (see page 19).

In addition, read the sections below for important information about existing security and user accounts, if any.

### About Existing Security Settings

Both the Veriti Thermal Cyclers and VeritiLink Software can be set up to require users to log in. Allowing VeritiLink Software to control a thermal cyclers already in use does not change the security settings on the thermal cyclers. [Table 1](#) explains how the two security settings interact with private run methods stored on the Veriti Thermal Cyclers.

**Table 1** Run method availability from VeritiLink™ Software for different “Login Required” settings

Is Login is Required for the...		Private Run Methods Available to VeritiLink™ Software‡?
Veriti™ Thermal Cyclers?	VeritiLink™ Software?	
Yes	Yes	Yes
Yes	No	No
No	Yes	No (initially no private run methods exist) Yes, after run methods have been created using VeritiLink Software§
No	No	No All run methods are shared in this scenario.

‡ Assumes that the same user account is present in the software and on the thermal cyclers.  
 § To access these private run methods from the Veriti Thermal Cyclers touchscreen, change the Require Login setting to Yes on the thermal cyclers.

### About Existing User Accounts and Settings

Allowing VeritiLink Software to control a thermal cyclers already in use:

- Does not change custom folders, any methods in the custom folders, or any shared run methods.
- Disables user account management on the thermal cyclers. Any changes to user accounts must be made using the VeritiLink Software.
- Updates the user accounts as described below.

### User Account Interactions

When a thermal cyclers is added to VeritiLink Software, the software compares the user accounts on the thermal cyclers to the user accounts in VeritiLink Software and reconciles them as described in [Table 2](#), below.

---

**IMPORTANT!** If you want the VeritiLink Software to have access to run methods stored in a user account on a Veriti Thermal Cyclers, create a user account with the **same** user name in VeritiLink Software.

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**Table 2** User account interactions for VeritiLink™ Software and Veriti™ Thermal Cyclers

Is the Same User Account Present on the...		Then...
Veriti™ Thermal Cyclers?	VeritiLink™ Software?	
Yes	Yes	<ul style="list-style-type: none"> <li>VeritiLink Software user account <i>overwrites</i> the thermal cyclers user account.</li> <li>The user's custom folders and the associated run methods on the thermal cyclers are not changed.</li> </ul>
No	Yes	<ul style="list-style-type: none"> <li>VeritiLink Software user account is <i>added</i> to the thermal cyclers.</li> <li>After account is added, the user can create custom folders and run methods directly on the thermal cyclers or using VeritiLink Software.</li> </ul>
Yes	No	<ul style="list-style-type: none"> <li>User account is <i>not visible</i> from VeritiLink Software.</li> <li>The user's custom folders and the associated run methods on the thermal cyclers are <i>not visible</i> from VeritiLink Software.</li> </ul>

## Upgrading the Firmware

**IMPORTANT!** You must upgrade the Veriti Thermal Cycler firmware to version 1.2.0 or later in order to use all of the features of VeritiLink Remote Management Software.

### About the Upgrade

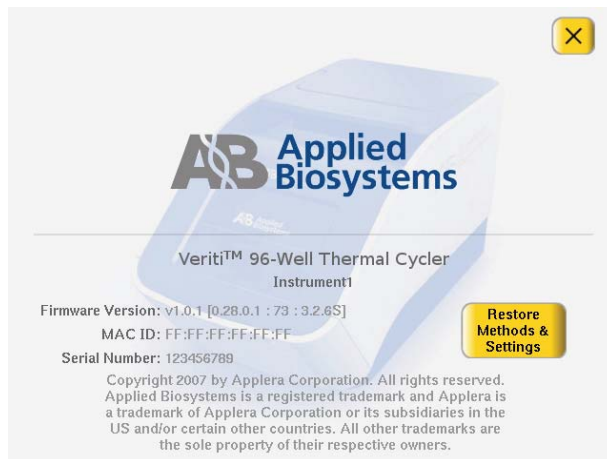
You need a USB drive and, if your thermal cycler requires login, Administrator access to upgrade the firmware.


**Note:** You cannot upgrade the firmware while a run is in progress.

### Obtaining the Veriti™ Thermal Cycler Firmware

1. On the thermal cycler, determine the version number of the existing firmware from the About the Instrument screen.
  - a. Open the About the Instrument screen:
    - Touch **Log Off** to return to the Login Options screen, then touch **About the Instrument**.
    - or*
    - In the Main Menu screen, touch **Settings Menu**, then **About the Instrument**.

The About the Instrument screen opens:




- b.** In the About the Instrument screen, find the version number of the firmware then touch  (Close) to close the About the Instrument screen.
- 2.** If the version of the firmware on the thermal cyclers is less than 1.2.0, follow the steps below to download a new version of the firmware to a USB drive.

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**Note:** If the version of the firmware is 1.2.0 or greater, you may still want to download a newer version. The release notes (available from the Release Notes link) describe the changes in the firmware.

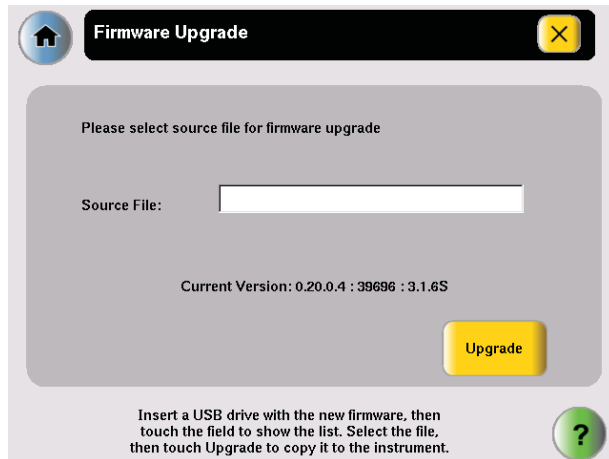
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- a.** In a web browser on a computer connected to the Internet, go to [www.appliedbiosystems.com](http://www.appliedbiosystems.com).
  - b.** Click **Support**, then **Software Downloads**.
  - c.** Select **Veriti Thermal Cycler** in the list, then click **Firmware**.
  - d.** Find the appropriate file.
  - e.** Insert the USB drive into the USB port on the computer.
  - f.** Click  in the Software column to download the file. Select the USB drive as the location for the saved file.
  - g.** Remove the USB drive from the computer when the download is complete.

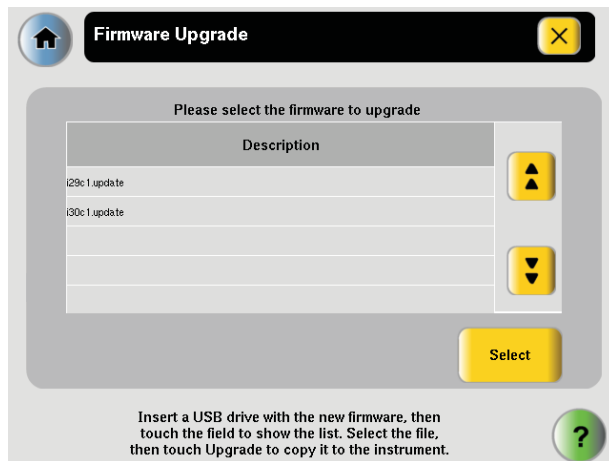
### Upgrading the Veriti™ Thermal Cycler Firmware

- 1.** Insert the USB drive with the new firmware in the USB port on the front of the Veriti Thermal Cycler.
- 2.** Log in to the thermal cyclers as a user with administrative privileges.
- 3.** In the Main Menu screen, touch **Settings Menu**.
- 4.** In the Settings Menu screen, touch **Admin Menu**.

5. In the Admin Menu screen, touch **Upgrade Firmware**.  
The Firmware Upgrade screen opens:



6. Touch **Source File** to display a list of the files on the USB drive. Veriti system firmware files end with “.update”:



7. Touch the name of the file with the new firmware, then touch **Select**.



**8. Touch Upgrade, then Yes.**

When the upgrade process is complete, the message “Upgrade is completed. Please remove your USB device and reboot your instrument.” is displayed.

**9. Remove the USB drive and power off the thermal cycler, using the switch on the back of the instrument.**

**10. Power on the instrument.**

## Physically Connecting Thermal Cyclers to the Network

To connect thermal cyclers to the network, you need one Ethernet cable for each thermal cycler. Connect the Ethernet cable to the Ethernet port on the back of the thermal cycler and connect the other end of the cable to the network.



**Figure 3** Rear view of Veriti™ Thermal Cycler

## Setting Up the Thermal Cycler

**Set Up Overview** For each thermal cycler in the system, perform the following:

- Set the instrument name – [page 15](#)
- Set the IP address – [page 16](#)
- Set the date and time – [page 18](#)
- Enable VeritiLink Software access – [page 19](#)

---

**Note:** You can print the run history, run reports, verification results, and/or a run method from the VeritiLink Software. If you also want to print directly from the thermal cycler, see the touchscreen help on the Veriti Thermal Cycler for instructions to set up a printer.

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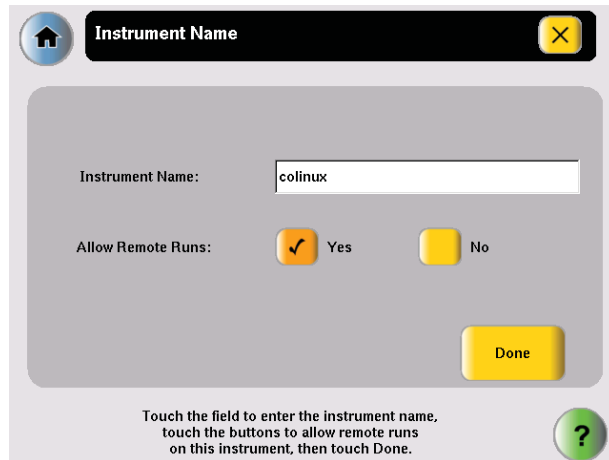
### Setting the Instrument Name

In VeritiLink Software, the thermal cycler name appears in many places. By default the name is set to the thermal cycler serial number. You can change the name to something more descriptive so it will be easier to identify.

**To set the instrument name:**

1. Log in to the thermal cycler as a user with administrative privileges.
2. In the Main Menu screen, touch **Settings Menu**.
3. In the Settings Menu screen, touch **Admin Menu**.

4. In the Admin Menu screen, touch **Set Instrument Name** to open the Instrument Name screen:



5. Touch the field to display an editor. In the editor, enter the new name.  
Names cannot contain spaces and cannot be more than 24 alphanumeric characters or, for numeric-only names, 10 characters.
6. Touch **Done**, then **OK** to save your changes and return to the Admin Menu screen.

## Setting the IP Address

The thermal cycler must have an IP address to be recognized on the network. You can choose to have a computer on the network dynamically assign the IP address or you can set a static IP address.

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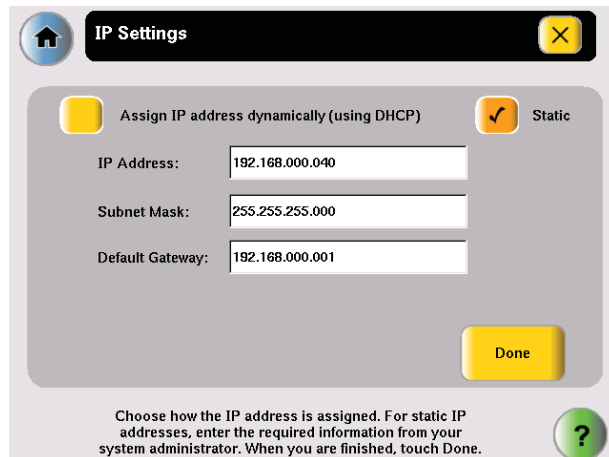
**Note:** Ask your system administrator if the IP address is assigned statically or dynamically. For static addresses, you need to know the IP address for the thermal cycler, the subnet mask, and the default gateway.

---

### To set the IP address:

1. Log in to the thermal cycler as a user with administrative privileges.

2. In the Main Menu screen, touch **Settings Menu**.
3. In the Settings Menu screen, touch **Admin Menu**.
4. In the Admin Menu screen, touch **Set IP Address**.



5. In the IP Settings screen, set the IP address:
  - To assign the IP address dynamically – Touch **Assign IP address dynamically (using DHCP)**. A check mark appears when DHCP is selected.  
*or*
  - To assign a static IP address – Touch **Static**, then enter the appropriate IP addresses for the thermal cycler, the subnet mask, and, optionally, the default gateway using the numeric editor. Addresses are in the form of X.X.X.X, where each X is a 3-digit number, from 001 to 255. For example: 192.166.001.100.
6. Touch **Done**, then **OK** to save your changes and return to the Admin Menu screen.

## Setting the Date and Time

The VeritiLink Software uses the date and time from the thermal cycler when reporting events and when determining if verifications are due.

Because some lists are sorted by date and time in VeritiLink Software, if the date or time is not set correctly on the thermal cycler, information may not appear where you expect it.

### To set the date and time:

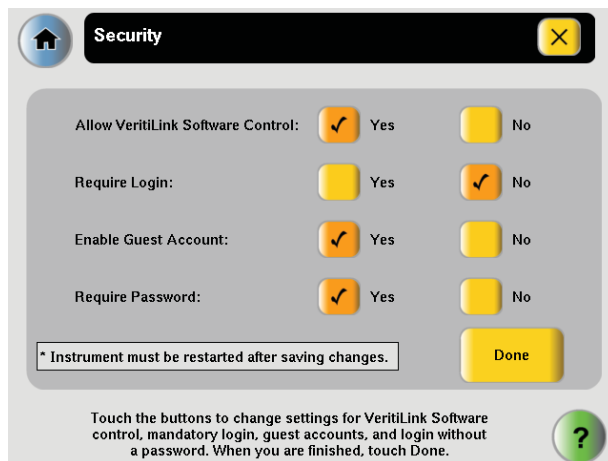
1. Log in to the thermal cycler as a user with administrative privileges.
2. In the Main Menu screen, touch **Settings Menu**.
3. In the Settings Menu screen, touch **Admin Menu**.
4. In the Admin Menu screen, touch **Set Date & Time**.
5. To set the date, touch **Date**, then enter today's date, using the format YYYY-MM-DD. The thermal cycler automatically enters the "-".
6. To set the time, touch **Time**, enter the current time using the format HH:MM, then touch **AM** or **PM**. The thermal cycler automatically enters the ":".
7. Touch **Done**, then **OK** to save your changes and return to the Admin Menu screen.

## Enabling VeritiLink Software Control

To allow VeritiLink Software to control the thermal cycler:

1. Log in to the thermal cycler as a user with administrative privileges.
2. In the Main Menu screen, touch **Settings Menu**.
3. In the Settings Menu screen, touch **Admin Menu**.
4. In the Admin Menu screen, touch **Security**.

If you do not see the Allow VeritiLink Software Control option in the Security screen, the thermal cycler does not have the correct version of the firmware. Follow the instructions on [page 11](#) to upgrade the firmware on the thermal cycler.



5. Touch **Yes** next to Allow VeritiLink Software Control to allow VeritiLink Software to manage this thermal cycler.

6. As desired, reset the other options. These options apply *only* when the thermal cycler is accessed directly using the touchscreen.

- To require each user to log in when using the instrument, touch **Yes** next to **Require Login**.

---

**Note:** When Allow VeritiLink Software Control is Yes, user account management is disabled on the thermal cycler. Any changes to user accounts must be made using the VeritiLink Software.

---

- To allow anyone to log in as a guest, touch **Yes** next to **Enable Guest Account**.

A guest user can perform runs, view and print run methods, and run tests. Also, for run methods stored on a USB drive, a guest can create, view, edit, delete, save, and print run methods.

A guest user cannot manage users or set instrument preferences.

- To require users to enter a password when logging in, touch **Yes** next to **Require Password**.

7. Touch **Done**, then **Yes** in the dialog box asking you to restart the instrument.

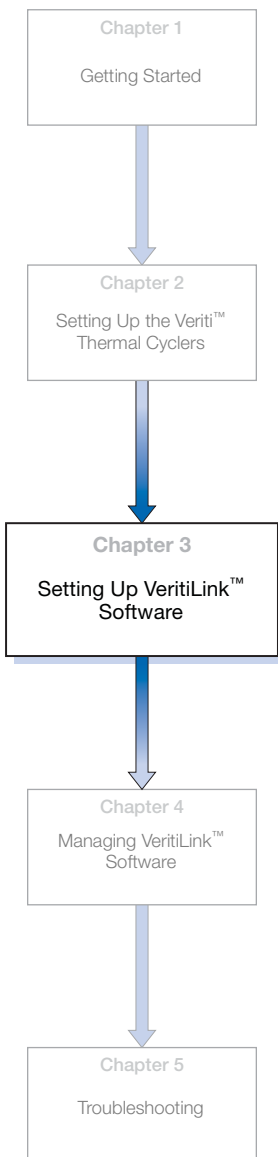
Power off the thermal cycler, using the switch in the back, then power on. The thermal cycler restarts, using the new security settings.

## 3

# Setting Up VeritiLink™ Software

This chapter covers:

- Installing the VeritiLink™ Software. . . . . 22
- Using the VeritiLink™ Software Setup Wizard. . . . . 28
- Additional Setup Options . . . . . 46
- Making Changes Without the Setup Wizard. . . . . 46
- Using the VeritiLink™ Software Client. . . . . 47





## Installing the VeritiLink™ Software

### Minimum Requirements

The minimum requirements for the server depend on the number of clients and thermal cyclers that are connected to the network. Use the table below to identify your laboratory's configuration and the appropriate requirements.

**Table 3** Software and hardware requirements for the VeritiLink™ Software server

Component	Minimum Requirements for Different Configurations		
	Fewer than 5 users	Average of 10 users	Average of 20 users
	Up to 25 thermal cyclers	25 to 50 thermal cyclers	25 or more cyclers
Computer	<ul style="list-style-type: none"> <li>Intel Dual Core processor, 2.0 GHz</li> <li>1 GB RAM</li> <li>40 GB Hard Drive</li> </ul>	<ul style="list-style-type: none"> <li>Pentium D processor, 3.0 GHz</li> <li>2 GB RAM</li> <li>40 GB Hard Drive</li> </ul>	<ul style="list-style-type: none"> <li>Intel Xeon processor, 3.0 GHz</li> <li>2 GB RAM</li> <li>160 GB Hard Drive, with RAID 1 support</li> </ul>
Monitor	1024 × 768 pixels		
Operating System	Microsoft Windows® XP operating system with Service Pack 2 or greater‡		Microsoft Windows Server 2003 Operating System
Web Browser	<ul style="list-style-type: none"> <li>Microsoft Internet Explorer, v7.0 or greater§</li> <li>or</li> <li>Mozilla Firefox, v2.0 or greater</li> </ul> <p><b>Note:</b> Follow the instructions in <a href="#">“Web Browser Settings”</a> on page 23, to unblock cookies and allow pop-up windows for VeritiLink Software.</p>		

‡ The VeritiLink Software server is not supported on Microsoft Windows® Vista operating system.

§ VeritiLink Software is not supported on Internet Explorer v6.0.

## Web Browser Settings

### Accepting Cookies

VeritiLink™ Software requires that your browser accept cookies. By default both Internet Explorer and Mozilla Firefox accept cookies.

If your browser is set to block cookies, use the browser’s online Help to find instructions to unblock cookies for VeritiLink Software. To selectively unblock cookies only for VeritiLink Remote Management Software, you need the URL for the VeritiLink Software server.

### Unblocking Pop-Up Windows

VeritiLink Software requires that your browser allow pop-up windows. By default, both Internet Explorer and Mozilla Firefox block pop-up windows. To selectively unblock pop-up windows only for VeritiLink Remote Management Software, follow the instructions for your web browser.

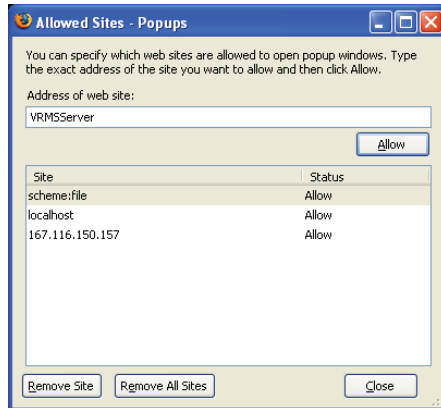
To unblock pop-up windows for Mozilla Firefox:

1. Click **Tools** ► **Options**.
2. In the Options dialog box, click **Content**.



3. Next to “Block pop-up windows”, click **Exceptions**.

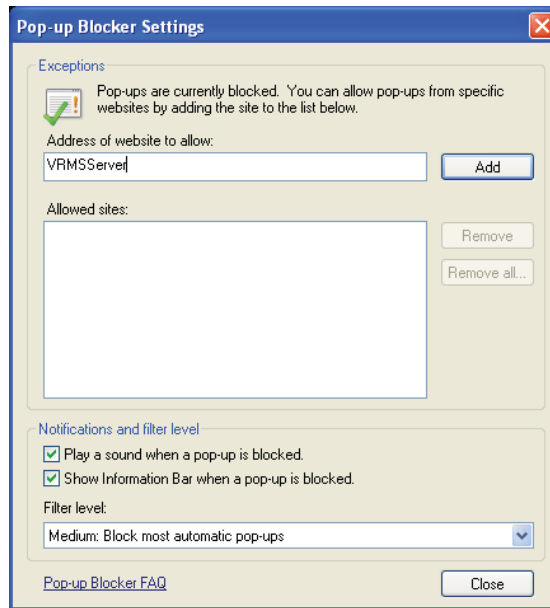
4. In the Allowed Sites - Popups dialog, indicate the server:
  - a. Enter the URL for the VeritiLink Software server in the Address of web site field.
  - b. click **Allow**, and then **Close**.



5. In the Options dialog box, click **OK**.

To unblock pop-up windows for Internet Explorer:

1. Click **Tools** ▶ **Pop-up Blocker** ▶ **Pop-up Blocker Settings**.
2. In the Pop-up Blocker Settings dialog box, indicate the server:
  - a. Enter the URL for the VeritiLink Software server in the “Address of website to allow” field.
  - b. Click **Add**, then **Close**.



## Installing the VeritiLink™ Software Server

**Note:** To install the VeritiLink Software, you must be a member of the Administrators group on the server computer. To determine if you are an Administrator, click **Start** ▶ **Control Panel** ▶ **User Accounts**. Look for your user name in the list.

1. Insert the VeritiLink Remote Management Software CD into the CD drive.

2. Follow the instructions that appear on the screen.

In the Select Features window of the installer, if you want to use https protocol and/or your laboratory has many clients or thermal cyclers, select Apache Web Server.

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**Note:** You can install Apache Web Server later by inserting the CD and selecting **Modify** in the Welcome screen.

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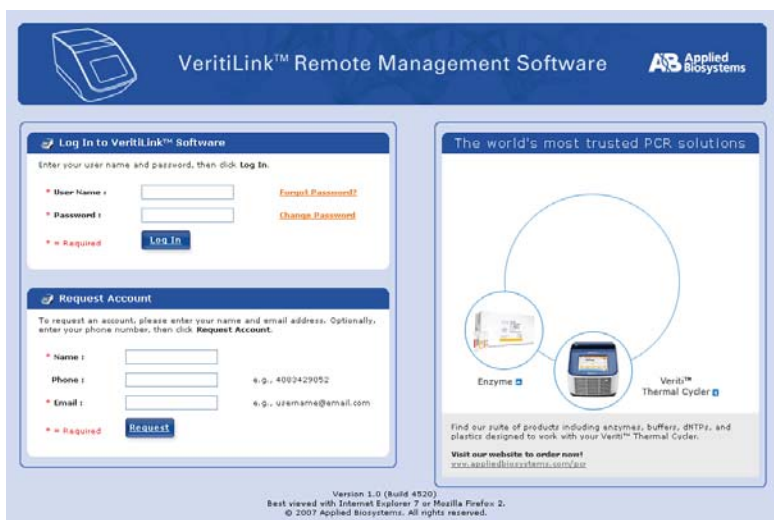
During the installation process, several command windows open and then close.

When the installation is complete, the server starts automatically.

**To verify the server is running:**

1. If needed, open your web browser.
2. Follow the instructions on “[Web Browser Settings](#)” on page 23 to unblock pop-up windows and accept cookies.
3. In the URL field, enter the server IP address or URL and press **Enter**.

The initial screen opens. You can view the VeritiLink Software version number at the bottom of this screen.



If the initial screen does not open, verify that the server is installed and running in the Services window:

- a. Click **Start ▶ Control Panel ▶ Performance ▶ Maintenance ▶ Administrative Tools** and then double-click **Services**.
- b. In the Services window that opens, verify that VRMS Database Server and VRMS Web Server are present in the list and their status is Started.  
If you installed the Apache Web Server, verify that it is also present in the list and its status is Started.

If the VeritiLink Software services are not listed, restart the computer and check the Services window again. If they are still not shown, reinstall the software.

If the server is installed but not running, follow the instructions in [“Starting the VeritiLink™ Software Server”](#) on page 27 to start the server.

---

**IMPORTANT!** Only one instance of the VeritiLink Software should be running on the network at a time.

---

4. Go to [“Using the VeritiLink™ Software Setup Wizard”](#) on page 28 and use the Setup Wizard to set up the system.

The server should remain running at all times.

To stop the server, see [“Stopping the VeritiLink™ Software Server”](#) on page 52.

## Starting the VeritiLink™ Software Server

The server is installed as a service that starts automatically, so you do not need to start it manually. If the server computer is rebooted, the server automatically restarts. If you need to manually start the server, follow these instructions.

**To manually start the server:**

Click **Start ▶ All Programs ▶ Applied Biosystems ▶ VeritiLink Remote Management Software ▶ Start VRMS Services**.

The server is started.

## Using the VeritiLink™ Software Setup Wizard

VeritiLink Remote Management Software provides a Setup Wizard to allow you to easily set up the software. You can also accomplish the same steps by following the instructions in “[Making Changes Without the Setup Wizard](#)” on page 46.

### Before You Use the Setup Wizard

Ensure you can answer “Done” to each of the questions below before starting the Setup Wizard.

**Table 4** Setup Wizard Checklist

Required Step	See	Done?
Is the VeritiLink™ Software installed?	<a href="#">page 25</a>	
Is the VeritiLink Software server running?	<a href="#">page 27</a>	
Have the required changes for cookies and pop-up windows been made to the web browser settings?	<a href="#">page 23</a>	
Have all the steps in <a href="#">Chapter 2, “Setting Up the Veriti™ Thermal Cyclers,”</a> been completed for each thermal cyclers?	<a href="#">page 7</a>	
Are the Veriti Thermal Cyclers connected to the network and are they turned on?	<a href="#">page 14</a>	
Do you have a list of all users (and their email addresses) who want to use VeritiLink Software?		
If you have existing user accounts on the Veriti Thermal Cyclers for users who want to use VeritiLink Software, do you have their user names and their email addresses?	<a href="#">page 9</a>	
Do you have the following information from your system administrator? <ul style="list-style-type: none"> <li>• IP address and port of the email server</li> <li>• User name and password for the VeritiLink Software server</li> </ul>	<a href="#">page 6</a>	

## Starting the Setup Wizard

1. Open your web browser and enter the server IP address or URL in the URL field and press **Enter**.
2. In the initial screen, enter **admin** in the user name field and **password** in the password field, then click **Log In**.  
The Setup Wizard opens, with the Discover Instruments tab frontmost.

---

**Note:** The Setup Wizard appears each time the default administrator user logs in to the software until the **Finish** button has been clicked.

---



## Identifying Veriti™ Thermal Cyclers on the Network

In the Discover Instruments tab of the Setup Wizard, instruct the software to locate all Veriti Thermal Cyclers on the network and indicate which of them will be managed by VeritiLink Software.

**Note:** Only Veriti Thermal Cyclers with Allow VeritiLink Software Control set to Yes can be managed by VeritiLink Remote Management Software.

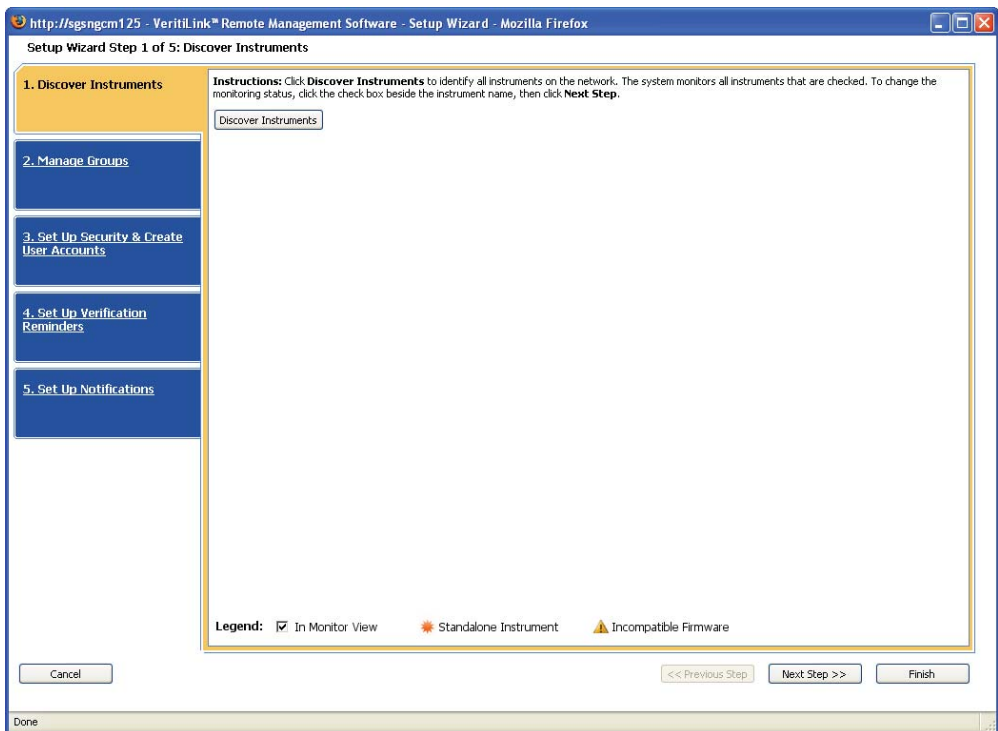
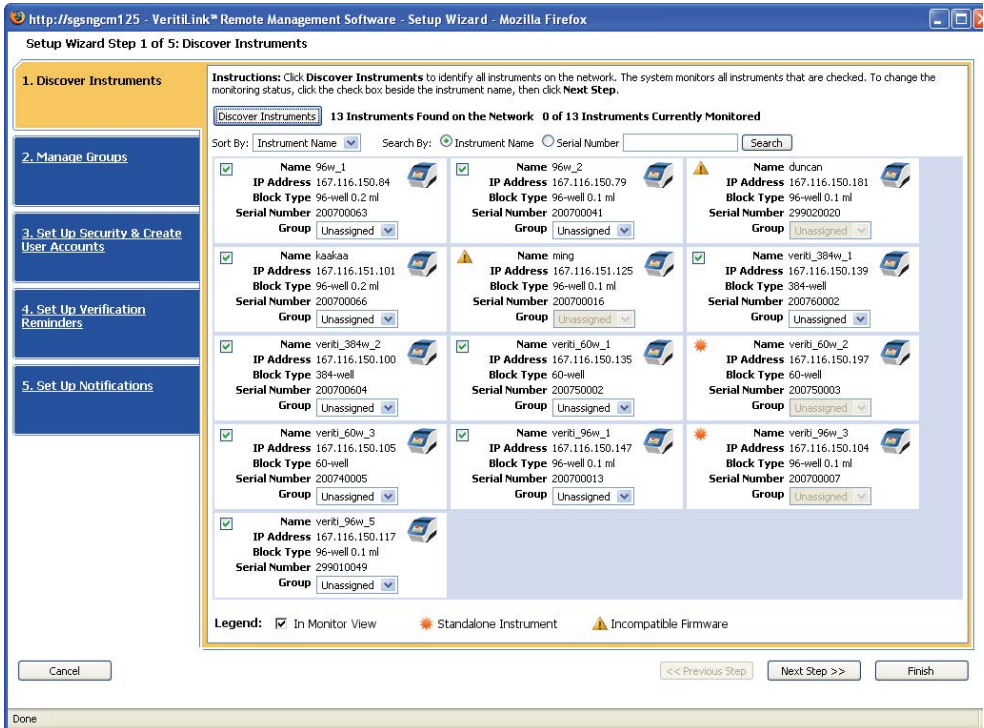


Figure 4 Discover Instruments tab in the Setup Wizard

To identify thermal cyclers for monitoring with VeritiLink Software:

1. Click **Discover Instruments** and wait for VeritiLink Software to survey the network and identify the available thermal cyclers.

All thermal cyclers on the network are displayed in the window:



Each thermal cyclers shows a symbol in the upper left corner indicating its status:

- ⚠ – a stand-alone thermal cyclers (one with Allow VeritiLink Software Control set to No). Stand-alone thermal cyclers cannot be managed by VeritiLink Software.
- – a thermal cyclers that can be managed by VeritiLink Software. By default this box is checked, indicating it is selected to be added to the system for monitoring.
- ⚠ – a thermal cyclers with incompatible firmware. You must update the firmware and set Allow VeritiLink Software Control to Yes before this thermal cyclers can be managed.

For any thermal cycler that does not appear in this window:

- a. Verify the thermal cycler is powered on.
  - b. Verify that the IP address for the thermal cycler is correct.
  - c. Verify that the Allow VeritiLink Software Control setting (in the Security screen on the thermal cycler) is Yes (see [“Enabling VeritiLink Software Control”](#) on page 19).
  - d. Verify the Ethernet cables are connected to the missing thermal cycler and the network.
  - e. Restart the missing thermal cycler.
  - f. Click **Discover Instruments** again.
2. For any thermal cycler you do **not** want to manage with VeritiLink Software, deselect the check box in the upper left corner.
  3. When you are done, click **Next Step** to go to the Manage Groups tab.

## Managing Groups (Optional)

**What is a Group?** A group is a way to organize your instruments in VeritiLink Software. You can create groups based on application, thermal cyclers location, lab manager, or any other criteria. After you have created groups and assigned thermal cyclers to them, you can view a single group at a time.

In the Manage Groups tab of the Setup Wizard, you can create groups and assign thermal cyclers to them.

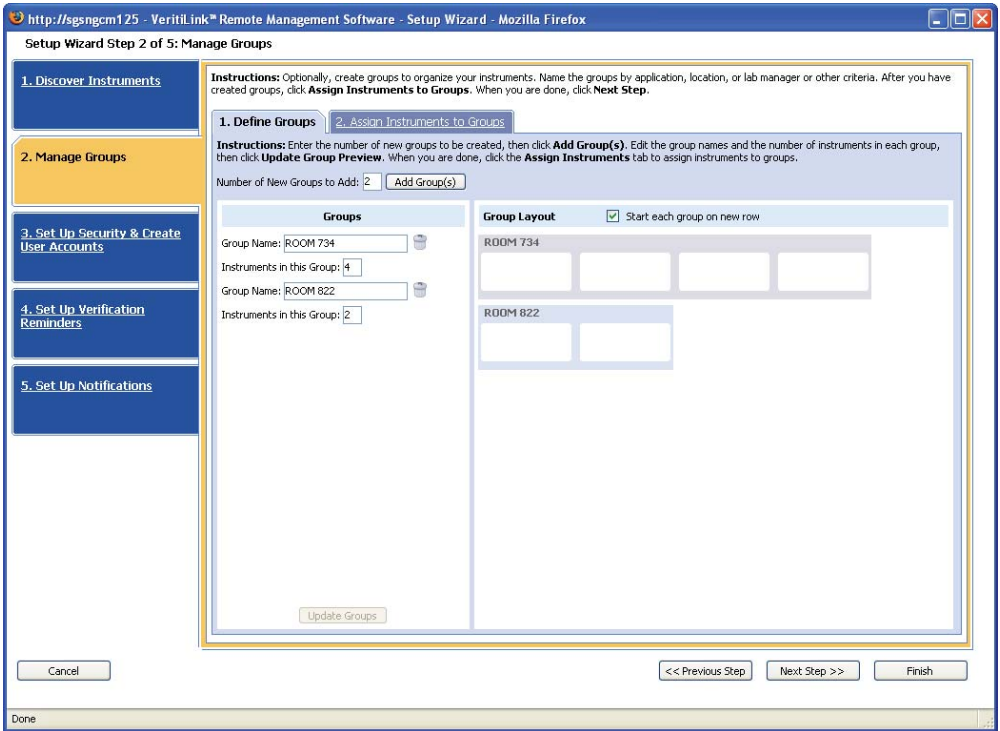



Figure 5 The Manage Groups tab in the Setup Wizard

**Note:** Groups are optional in VeritiLink Software. You are not required to create groups or to assign a thermal cyclers to groups in order to use VeritiLink Software.

**To create one or more groups:**

1. Enter the number of new groups to create, then click **Add Group(s)**.
2. Optionally, edit the Group Name field and/or the # of Instruments in Group field as desired. Click **Update Groups** to display the changes on the right.

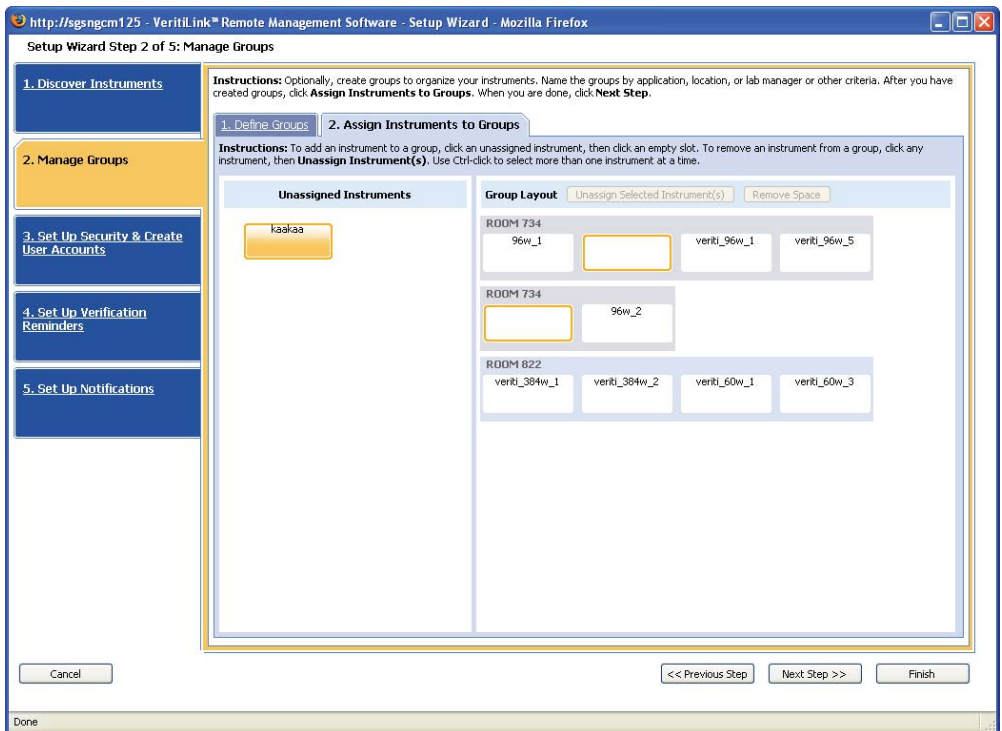
**To delete a group:**

1. Click  (Delete).
2. In the dialog box that opens, click **Delete Group**.  
The group is deleted.

**To assign thermal cyclers to a group:**

1. Click the **Assign Instruments to Group** tab.

The thermal cyclers that are not assigned to a group are shown on the left and the available groups are shown on the right.



2. Click one of the unassigned thermal cyclers.

The selected thermal cycler and the empty spaces in the groups are outlined in orange.

3. Click the desired position in the group for the thermal cycler.

The thermal cycler is removed from the list of unassigned thermal cyclers, and it appears in the group.

4. Repeat [steps 2](#) and [3](#) for all thermal cyclers that you want to assign to a group.

5. To move a thermal cycler from one group to another, click thermal cycler, then click an empty spot in the other group.
6. When you are done, click **Next Step** to go to the Set Up Security and User Accounts tab.

**To remove a thermal cycler from a group:**

1. Click the thermal cycler you want to remove. Ctrl-click to select more than one instrument.
2. Click **Unassign Instrument(s)**.  
The thermal cycler appears in the Unassigned Instruments list on the left.

**To remove a space from a group:**

Click the space you want to remove, then click **Remove Space**.

## Setting Up Security and User Accounts

In the Set Up Security and User Accounts tab of the Setup Wizard, you enter information about the email server, and indicate if VeritiLink Software will require users to log in to use the software and create user accounts.

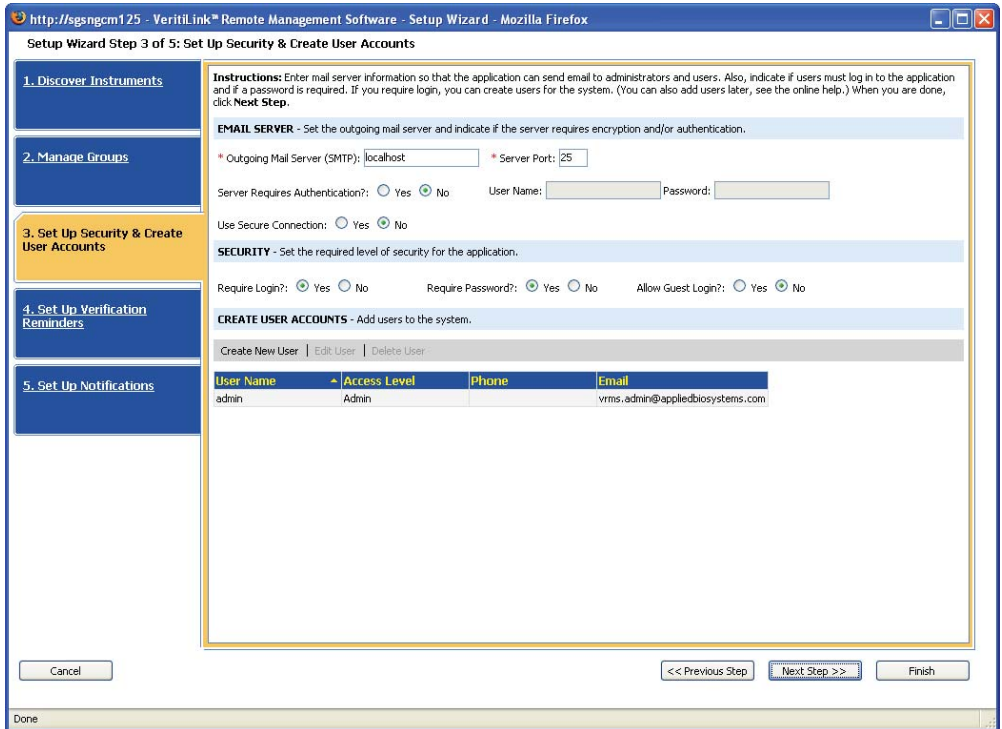


Figure 6 The Set Security & Create User Accounts tab in the Setup Wizard

### Setting Up Security and User Accounts

#### About the Email Settings

The VeritiLink Software server can send email if there is an email server accessible to the computer running the VeritiLink Software server. The email server must support SMTP.

To set up the email server and security, you need:

- The IP address (or name) and port for the mail server



- If the outgoing email server requires authentication, the user name and password for the email server.
- The email address for the VeritiLink Software sever. All user account and password requests are sent to this address. This email address is also used as the return address for any message sent to the user from the software.

Use the email address of:

- the person who will administer the software.

*or*

- a specific email address for the server, as described in [“Setting Up Email for the Server”](#) on page 6.

### About Security and User Accounts

By default, security settings for VeritiLink Software are enabled, requiring users to have a user name and password to log in. The Setup Wizard allows you to create user accounts for the system users. You can also create user accounts later, in the Admin tab.

See [Table 1, “Run method availability from VeritiLink™ Software for different “Login Required” settings,”](#) on page 9 to understand how the security settings in VeritiLink Software interact with the security settings on the thermal cyclers.

### To set up email settings, security, and user accounts:

1. Enter the email server information:
  - Enter the IP address and port for the outgoing mail server.
  - Indicate if the mail server requires authentication, and if so, enter the user name and password for the VeritiLink Software server.
  - Indicate if the mail server requires a secure connection.
2. Enter the security settings:
  - To require each user to log in when using the instrument, touch **Yes** next to Require Login.  
You must create a user account for each user.

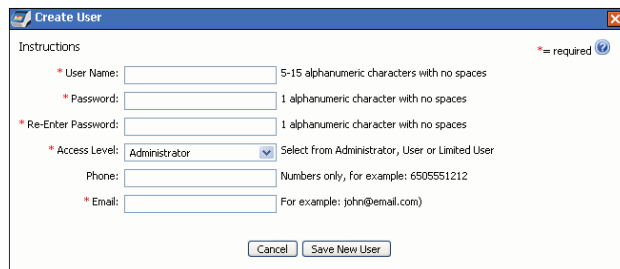
- To allow anyone to log in as a guest, click **Yes** next to Allow Guest Login.  
A guest user can perform runs and view and print run methods.
  - To allow users to log in without entering a password, touch **No** next to **Require Password**.
3. Edit the email address for the VeritiLink Software server.
    - a. Click the row in the table for the user named “admin”, then click **Edit User**.
    - b. In the Edit User dialog box, enter the email address for the VeritiLink Software server and then click **Save New User**.
  4. For each new user account to add, enter user information:

---

**IMPORTANT!** If you want the VeritiLink Software to have access to run methods stored in a user account on a Veriti Thermal Cycler, you must create a user account with the *exact* same user name in VeritiLink Software.

---

- a. Click **Create New User**.



- b. Enter the user name, access level (see [Table 5 on page 40](#)), and email address for the new user.
- c. Optionally, edit the password.  
The software automatically generates a password. You can edit the password.

- d. Optionally, enter a telephone number.
  - e. When you are done, click **Save New User**.
5. When you have created user accounts, click **Next Step** to go to the Set Up Verification Reminders tab.

### User Access Levels

When login is required, each VeritiLink Software user is assigned an access level. All types of users can perform thermal cycling runs, but other permissions depend on the user's access level.

**Table 5** User access levels in VeritiLink™ Software

Access Level	Available Functions
Limited User	<ul style="list-style-type: none"> <li>• Logs in with user name and password</li> <li>• Edits run methods, but cannot save them</li> <li>• Performs thermal cycling runs</li> </ul>
User	<ul style="list-style-type: none"> <li>• Logs in with user name and password</li> <li>• Creates, edits, saves, and deletes run methods</li> <li>• Performs thermal cycling runs</li> <li>• Configures notification and verification settings for themselves</li> <li>• Configures the default view of the Instruments tab for themselves</li> </ul>
Administrator	<p>All User functions and:</p> <ul style="list-style-type: none"> <li>• Manages thermal cyclers in the system by adding or removing</li> <li>• Creates, edits, and deletes groups; assigns thermal cyclers to them</li> <li>• Configures email settings and security settings for all users</li> <li>• Configures notification and verification settings for all users</li> <li>• Configures automatic export of verification information and run history</li> <li>• Configures the default view of the Instruments tab for the system</li> <li>• Receives email requests for user accounts</li> <li>• Creates, edits, and deletes user accounts</li> </ul>
Guest	<p><b>Note:</b> Guest login is only available when “Allow Guest Login” is Yes in the Security settings.</p> <ul style="list-style-type: none"> <li>• Logs in without a user name or password</li> <li>• Edits run methods, but cannot save them</li> <li>• Performs thermal cycling runs</li> </ul>

## Setting Up Verification Reminders

### What are Verifications?

Verifications are tests you perform on the Veriti Thermal Cycler. The VeritiLink Software keeps track of the results and, optionally, reminds you when the verification is next due.

In the Set Up Verification Reminders step of the Setup Wizard, indicate the verifications that you want to be reminded of (if any), the interval between verifications, and when reminders appear.

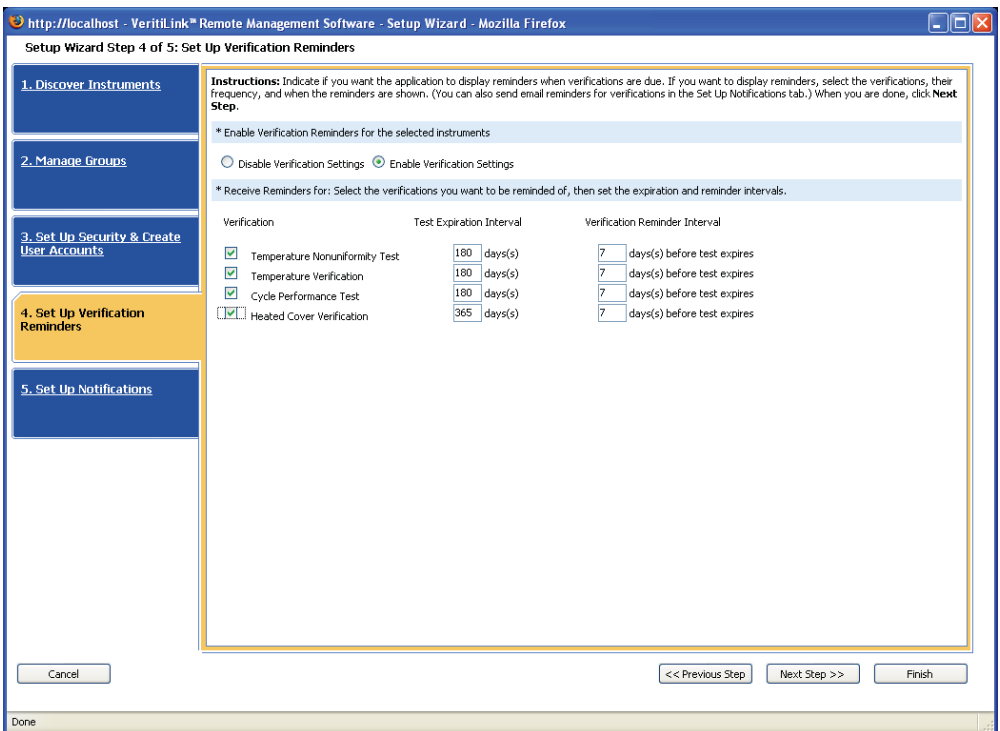


Figure 7 The Set Up Verification Reminders tab in the Setup Wizard

**To enable verification reminders:**

- 1.** Click **Enable Verification Settings** to indicate that you want VeritiLink Software to display reminders for verifications.
- 2.** For each verification, set the reminder and expiration intervals:
  - a.** Check the check box to select the verification.
  - b.** Enter the number of days between verifications. The default interval is one year.
  - c.** Enter the number of days before the verification's expiration to display a reminder. The default is one week.
- 3.** When you are done, click **Next Step** to go to the Set Up Notifications tab.

## Setting Up Email Notifications

### What are Notifications?

Notifications are email messages sent to users and administrators by VeritiLink Software. These messages can contain information about a run in progress or other information about the instrument.

In the Set Up Notifications step of the Setup Wizard, you indicate which messages are sent and to whom.

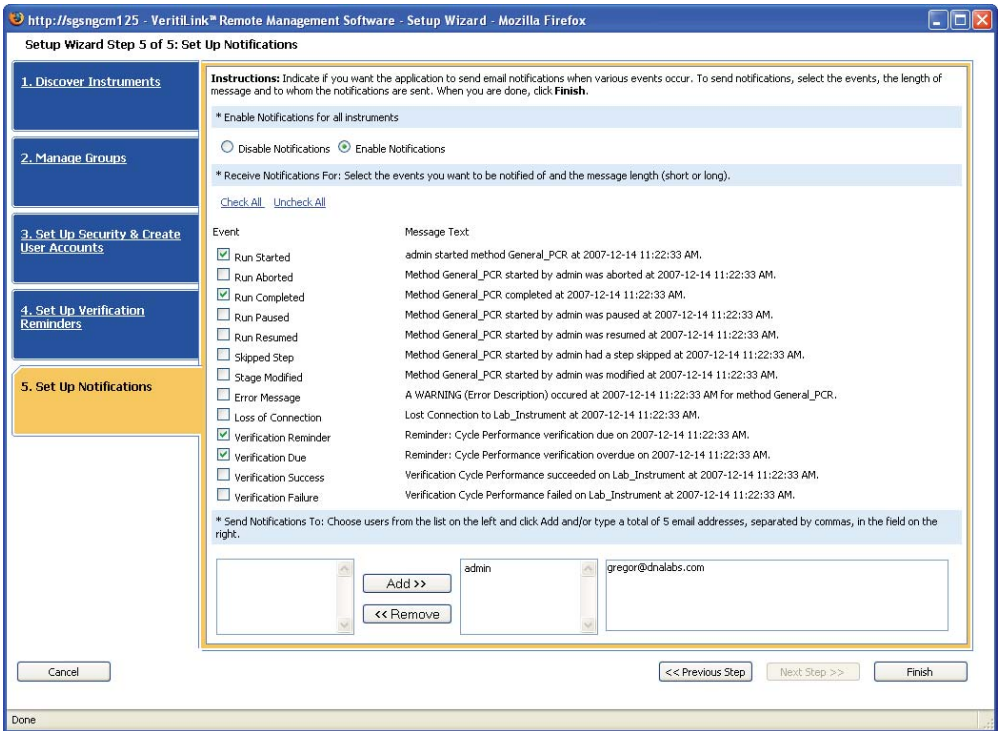


Figure 8 The Set Up Notifications tab of the Setup Wizard

**To set up email notifications for instrument events and verifications:**

1. Click **Enable Notification Settings** to indicate that you want VeritiLink Software to send email notifications for various events.
2. Check each event for which you want to send notifications.  
Optionally, click **Check All** or **Uncheck All** to quickly change the setting for all events.
3. Select to whom the notifications are sent:
  - From the list of users, click **Add**.  
The list of email addresses comes from the list of users created in the Set Up Security and Users tab.  
*and/or*
  - Manually enter up to five email addresses (separated by commas) in the field to the right to send messages to someone who is not in the list.

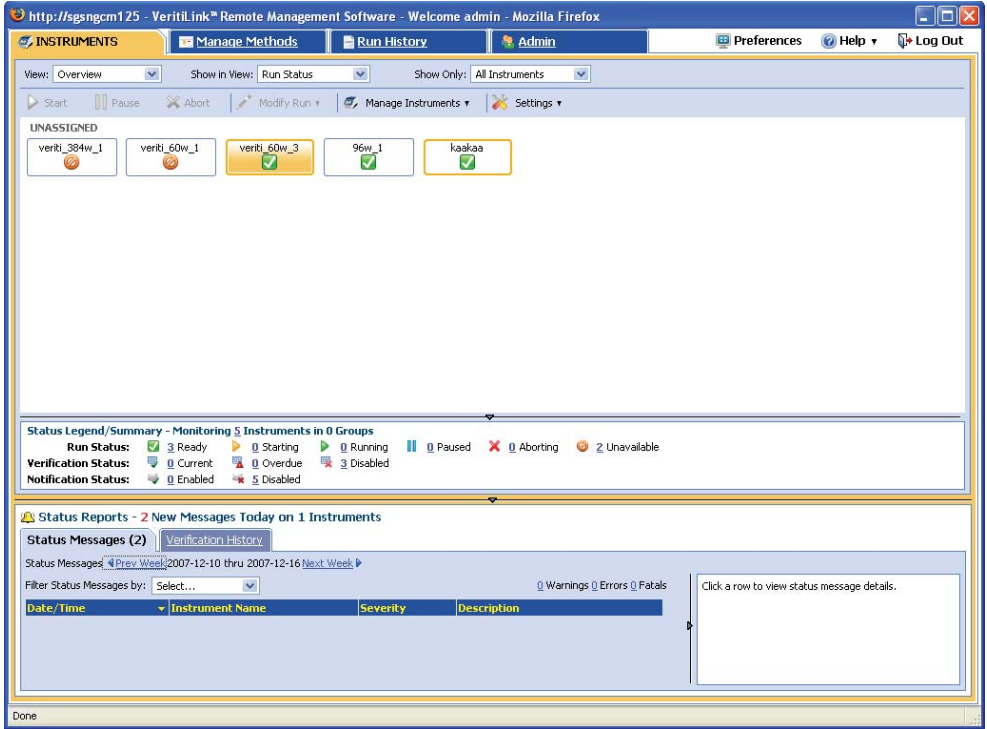
---

**Note:** Each user can set up email notifications in addition to those set up by the administrator. The VeritiLink Software checks to ensure duplicate messages are not sent.

---

4. When you are done, click **Finish**.  
All information is saved. Any new user account information is sent to the thermal cyclers as described in [Table 2, “User account interactions for VeritiLink™ Software and Veriti™ Thermal Cyclers,”](#) on page 10.  
If a thermal cycler is not available, the account information is sent to the thermal cycler the next time the thermal cycler is available.

The VeritiLink Software main window opens, with all of the thermal cyclers in the system displayed.





## Additional Setup Options

After completing the Setup Wizard you may want to change some additional settings.

- Automatic export of verification results – By default, a week’s worth of records are retained in the system. See [page 56](#) for instructions on changing the number of days records are retained.
- Automatic export of the run history – By default, a week’s worth of records are retained in the system. See [page 57](#) for instructions on changing the number of days records are retained.
- The image used to represent a thermal cyclers in the software – You can customize the image used for each thermal cyclers in the system. See [page 58](#) for instructions.

## Making Changes Without the Setup Wizard

This table describes how you can access various Setup Wizard functions from the VeritiLink Software client.

If your system requires login, you must have administrative privileges to access most of these settings.

**Table 6** Setup Wizard functions available from the VeritiLink™ Software client






Setup Wizard Function	Equivalent Function
Discover Instruments	Click  <b>Manage Instruments</b> ▶ <b>Discover Instruments on Network</b> .
Manage Groups	Click  <b>Manage Instruments</b> ▶ <b>Manage Groups</b> .
Setting Up Security and User Accounts	Security and email settings: Click  <b>Preferences</b> , then click the <b>Administration</b> tab.
	User Accounts: Click the <b>Admin</b> tab.

Table 6 Setup Wizard functions available from the VeritiLink™ Software client (continued)

Setup Wizard Function	Equivalent Function
Setting Up Verification Reminders	In the Instruments tab, select one or more thermal cyclers, then click  <b>Settings ▶ Verification Settings</b> . (The reminders apply only to the selected instruments.)
Setting Up Email Notifications	In the Instruments tab, select one or more thermal cyclers, then click  <b>Settings ▶ Notification Settings</b> . (The notifications apply only to the selected instruments.)

## Using the VeritiLink™ Software Client

**Minimum Requirements** The following table lists the minimum requirements for computers accessing the VeritiLink Software as clients.

Table 7 Software and hardware requirements for the VeritiLink™ Software client

Component	Minimum Requirements
Computer	<ul style="list-style-type: none"> <li>• Pentium 4 processor</li> <li>• 512 MB RAM</li> <li>• 10/100 NIC with RWU (internal)</li> <li>• 1 GB Hard Drive</li> </ul>
Monitor	1024 × 768 pixels
Operating System	Microsoft Windows® XP operating system with Service Pack 2 or greater‡
Web Browser	<ul style="list-style-type: none"> <li>• Internet Explorer, v7.0 or greater§</li> <li>or</li> <li>• Mozilla Firefox, v2.0 or greater</li> </ul> <p><b>Note:</b> Follow the instructions in “<a href="#">Web Browser Settings</a>” on page 23 to unblock cookies and allow pop-up windows for VeritiLink™ Software.</p>

‡ The VeritiLink Software client is not supported on Microsoft Windows® Vista operating system.

§ VeritiLink Software is not supported on Internet Explorer v6.0.

## Starting the VeritiLink™ Software Client

1. Start the VeritiLink Software client from an open web browser. In the URL field, enter the server IP address or URL and press **Enter**.

The VeritiLink Software opening screen is displayed. There are two versions of the screen, depending upon whether or not login is required for the software.

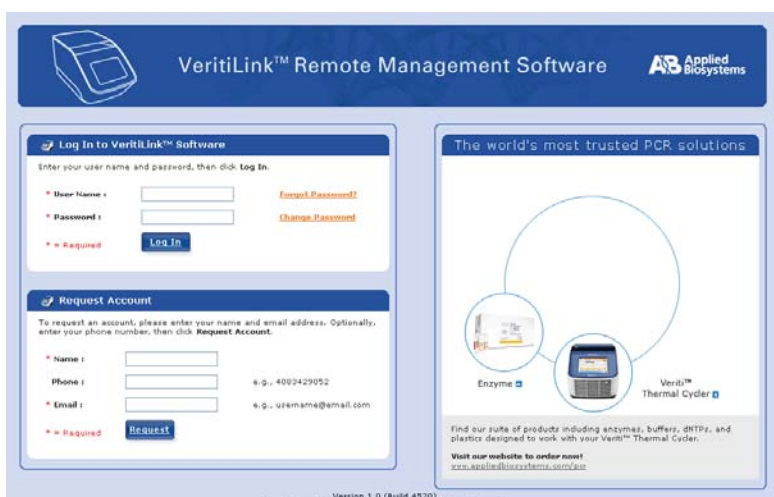


Figure 9 Opening screen, when login is required

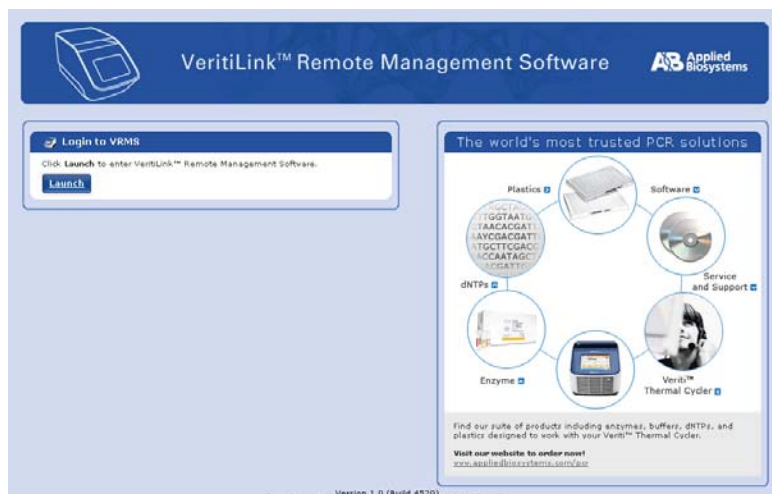


Figure 10 Opening screen, when no login is required

## 2. Open VeritiLink Software:

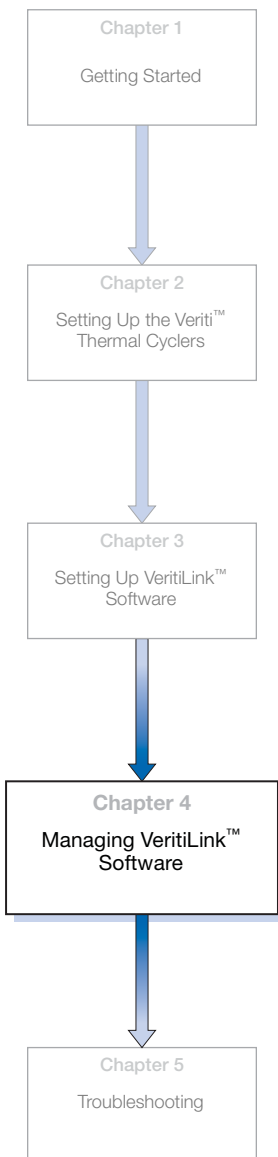
- If login is required and you have a user name and password, enter them and click **Log In**.
- If login is required and you need an account, enter information in the Request Account area and click **Request**.  
The VeritiLink Software administrator will contact you when your account has been created.
- If login is not required, click **Launch**.

## 4


# Managing VeritiLink™ Software

This chapter covers:

- Logging Out ..... 52
- Stopping the VeritiLink™ Software Server..... 52
- Maintaining the VeritiLink™ Software ..... 53
- Other Administrative Functions ..... 55




## Logging Out

In the upper right corner of the browser window, click  **Log Out** .

The login window comes to the front. The server continues running and any run in process continues.

---

**Note:** If you close the browser with , instead of logging out, it is possible for someone else to connect to VeritiLink™ Software using the browser on your computer without logging in.

---

## Stopping the VeritiLink™ Software Server

---

**IMPORTANT!** If you stop the VeritiLink Software Server while a run is in process, the run continues but no status messages or run information will be available for viewing in VeritiLink Software.

---

1. If you are logged in, click  **Log Out** .
2. Click **Start** ▶ **All Programs** ▶ **Applied Biosystems**  
▶ **VeritiLink Remote Management Software** ▶ **Stop VRMS Services**.

The server is stopped. Any thermal cycling runs in progress continue. When you restart the server, it continues monitoring any runs in progress.

## Maintaining the VeritiLink™ Software

**Backing Up System Data** Back up your data regularly, using whatever method your system administrator suggests.

**Table 8** VeritiLink™ Software files you may want to back up

File Contents	Stored on...	Path
User information and system settings	VeritiLink Software server	C:\Applied Biosystems\VRMS\vrms-web\db‡
Exported verification results		C:\Applied Biosystems\VRMS\Export\VerificationReports‡
Exported run reports		C:\Applied Biosystems\VRMS\Export\RunReports‡
Run methods	Any computer	Any directory
Run methods, instrument settings and user information	Veriti Thermal Cyclor	Use the Back Up Methods & Settings function in the Admin menu to back up information from the thermal cyclor to a USB drive.

‡ Assumes VeritiLink Software is installed in the default location.

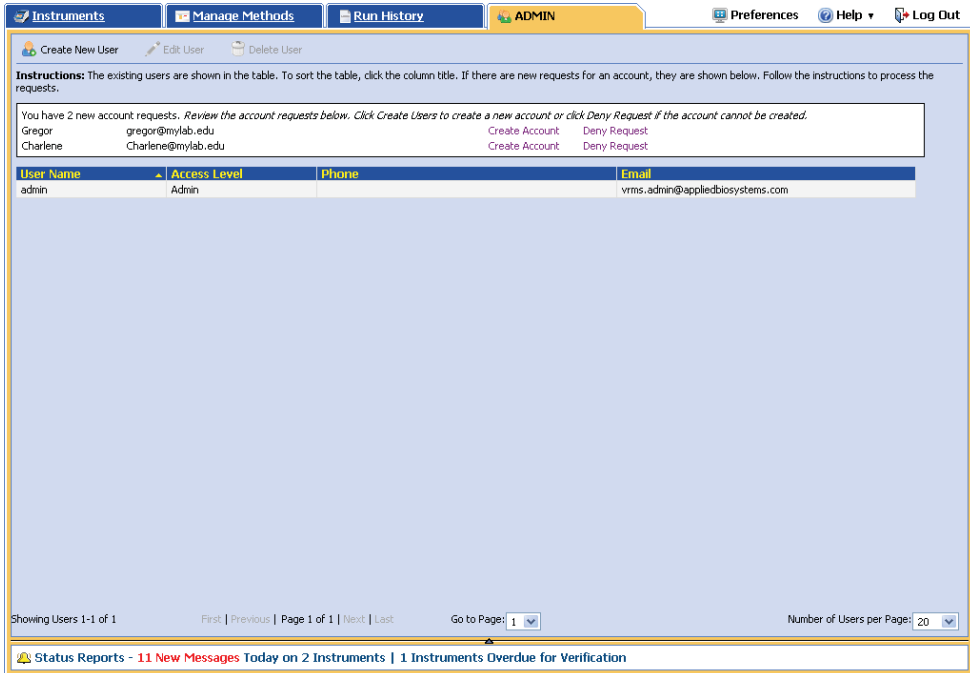
### Managing User Accounts

You can add, edit or delete user accounts in the Admin tab. When users request an account, their name and email address appears in the area above the table of users.

**Note:** If your system is not set up to require login, the Admin tab is not visible.

1. Log in as a user with administrative privileges.
2. Click the **Admin** tab.

The Admin tab comes to the front:



### 3. To add a user account:

- a. Click **Create New User** in the upper left corner of the window or **Create Account** in the white message area above the table of users.
- b. Enter the user name, access level (see [Table 5 on page 40](#)), and email address for the new user.
- c. Optionally, edit the password and/or enter a telephone number.
- d. When you are done, click **Save New User**.

The new account is created and is sent to all thermal cyclers managed by VeritiLink Software.

If a thermal cycler is not immediately available, the account information is written to the thermal cycler the next time the thermal cycler is available.



4. To deny an account request:

- a. Click **Deny Request** in the white message area above the table of users.
- b. In the dialog box that opens, click **Deny**.

The software sends the user an email message informing them their account request was denied.

5. To edit a user account:

- a. Click the row in the table to select the user to be edited, then click **Edit User**.
- b. In the window that opens, edit the information as desired and then click **Save User**.

The changes are saved and sent to all thermal cyclers managed by VeritiLink Software.

6. To delete a user account:

- a. Click the row in the table for the user account to be deleted. Ctrl-click to select more than one account.
- b. Click **Delete User**.
- c. In the dialog box that opens, click **Delete**.

The user account is deleted from VeritiLink Software. The user account and any custom folders and their associated run methods are also deleted on all thermal cyclers managed by VeritiLink Software. Any notifications set up for that user are also deleted.

## Other Administrative Functions

The following VeritiLink Software functions are only available to users with administrative privileges. See the corresponding page for more information:



- Changing the settings for the automatic export of:
  - Verification results – [page 56](#)
  - Run reports –

- Changing the image used to represent a thermal cyclers in the Instruments tab – [page 58](#)
- Removing thermal cyclers from the system – [page 59](#)

## Automatically Exporting Verification Results

VeritiLink Software is set up so verification results for the past seven days can be viewed in the Verification History tab. Any verification results older than seven days are exported and, optionally, deleted from the Verification History. You can change the number of days that the verification results are retained in the system.

To change the settings for retaining verification results:

1. Log in as a user with administrative privileges.
2. If needed, click  (the pane separator) to display the Status Messages pane, then click **Verification History** to bring the tab to the front.
3. Click  **Automated Export Settings**.
4. In the Automated Export Settings window that opens, change the interval:
  - a. Enter the number of days the verification results should be retained in the **Maintain records for X days** field.
  - b. Optionally, check **Delete verification results from Verification History after successful export** to delete the results from VeritiLink Software after the export.
  - c. Click **Save**.

Verification results that are older than the number of days in the **Maintain records for X days** field are exported once a day, at midnight.


The exported results are text files named `VerificationReport_InstrumentName_TestName_YYYYMMDDhhmm.ss.txt`, where `YYYYMMDDhhmmss` is the date and time of the export.

By default, the files are exported to the folder `C:\Applied Biosystems\VRMS\Export\VerificationReports` (unless the VeritiLink Software is installed in another location).

## Automatically Exporting Run Reports

VeritiLink Software is set up so run reports for the past seven days can be viewed in the Run History tab. Any run reports older than seven days are exported and, optionally, deleted from the Run History. You can change the number of days that the run reports are retained in the system.

To change the settings for retaining the run reports:

1. Log in as a user with administrative privileges.
2. Click the **Run Reports** tab, then click  **Automated Export Settings**.
3. In the Set Automated Export Parameters window that opens, change the length of time that the record are kept:
  - a. Enter the number of days the run reports should be retained in the **Maintain records for X days** field.
  - b. Optionally, check **Delete run reports from Run History after successful export** to delete the run reports from VeritiLink Software after the export.
  - c. Click **Save**.

Records that are older than the number of days in the **Maintain records for X days** field are exported once a day, at midnight.

The exported run reports are text files, named *InstrumentName\_RunID\_MethodName.txt*.

By default, the files exported to the folder `C:\Applied Biosystems\VRMS\Export\RunReports` (unless the VeritiLink Software is installed in another location).


## Customizing the Image for a Thermal Cycler

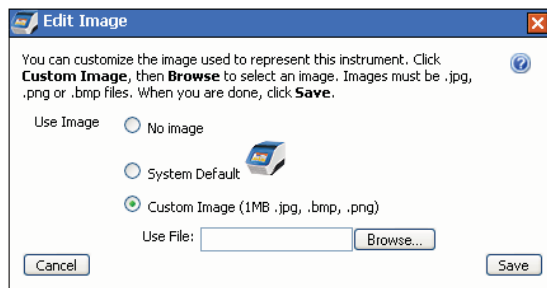
Various views in VeritiLink Software display an image for each thermal cycler in the system. By default, the image in [Figure 11](#) is used for all thermal cyclers. If you want, you can use a different image for each thermal cycler. You can also choose to use no image.



Figure 11 Default thermal cycler image in VeritiLink Software

To edit the thermal cycler image:

1. Log in as a user with administrative privileges.
2. Click the thermal cycler to select it in the Instruments tab.
3. Click  **Manage Instruments** ► **Edit Selected Instrument** to display the Edit Instrument dialog box.



4. In the Edit Image dialog box, choose one of the following:
  - To display no image, click **No image**.
  - To use the default image, click **System Default**.
  - To use a custom image, click **Custom Image**, then **Browse**. In the File Open dialog box that opens, find the image file you want to use, then click **Open**.

---

**Note:** The image must be 1 MB or smaller. Small and simple images work best.


---

5. Click **Save**.

## Removing a Thermal Cyclers from Monitoring


You can remove a thermal cyclers from being managed by VeritiLink Software.

To remove a thermal cyclers from being monitored:

1. Log in as a user with administrative privileges.
2. In the Instruments tab, click the thermal cyclers to select it. Ctrl-click to select more than one thermal cyclers.
3. In the menu bar, click  **Manage Instruments ▶ Delete Selected Instrument(s)**.
4. In the dialog box that opens, click **Delete Instruments**.

The selected thermal cyclers is deleted from the Instruments tab and is no longer monitored by VeritiLink Software.

Any user accounts and their private methods remain on the thermal cyclers.

If you want to monitor a thermal cyclers that you have removed, click  **Manage Instruments ▶ Discover Instruments on Network** and then check the check box in the upper left corner for the thermal cyclers.

# 4

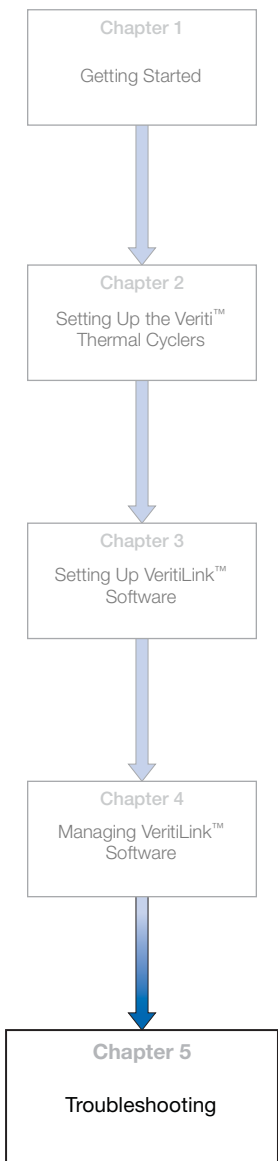
## **Chapter 4** Managing VeritiLink™ Software *Other Administrative Functions*

# 5

## Troubleshooting

This chapter covers:

- Troubleshooting Table ..... 62





## Troubleshooting Table

Observation	Possible Cause	Recommended Action
Allow VeritiLink Software Control setting not shown in Security screen on Veriti™ Thermal Cyclers	Firmware has not been upgraded	Upgrade the firmware (see <a href="#">“Upgrading the Firmware”</a> on page 11)
After entering the VeritiLink™ Software URL in the browser window: <ul style="list-style-type: none"> <li>• “This page cannot be displayed” message (for Internet Explorer users)</li> <li>• “Unable to connect” message (for Firefox users)</li> </ul>	The server computer is turned off or disconnected from the network	In a command window, use the “ping” command to verify the server computer can be accessed over the network. (You need the IP address or name of the computer.)  If not, restart the server computer and check the Ethernet cables.
	The VeritiLink Software server is not running	Check the Processes tab in the Windows Task Manager on the server computer for wrapper.exe (should be listed twice), memcached.exe, and httpd.exe to verify the VeritiLink Software is running. If not, restart the server (see <a href="#">“Starting the VeritiLink™ Software Server”</a> on page 27).
	Web browser timed out waiting for server response	<ul style="list-style-type: none"> <li>• Verify that server computer is not busy with non-VeritiLink Software tasks</li> <li>• Improve network traffic</li> </ul>
	Server computer’s IP address has changed	Use the “ipconfig” command to determine the server IP address and use it as the VeritiLink Software URL.  To permanently remedy the problem, verify that the server computer IP address is static so it does not change when the computer is restarted.
	Ports required by VeritiLink Software in use by other software	VeritiLink Software uses ports 80 and 1527.  Contact your system administrator for help resolving this issue.



Observation	Possible Cause	Recommended Action
After entering the VeritiLink Software URL in the browser window, an empty browser window opens	Pop-up windows blocked	Follow the instructions in <a href="#">“Unblocking Pop-Up Windows”</a> on page 23 for your browser
	Cookies blocked	Follow the instructions in <a href="#">“Accepting Cookies”</a> on page 23 for your browser
After entering the VeritiLink Software URL in the browser window, page for a different software program appears	Ports required by VeritiLink Software in use by other software	VeritiLink Software uses ports 80 and 1527. Contact your system administrator for help resolving this issue.
Layout of windows in client seems incorrect	Using Microsoft Internet Explorer v6.0	<ul style="list-style-type: none"> <li>• Install Internet Explorer v7.0</li> <li>• Install Mozilla Firefox v2.0</li> </ul>
Browser shows scroll bars after logging into VeritiLink Software	Screen resolution less than 1280 × 1024	Change the screen resolution to 1280 × 1024 or greater.
Thermal cycler not shown in Discover Instruments step	Cables loose, disconnected or bad	<ul style="list-style-type: none"> <li>• Check that cables are connected</li> <li>• In a command window, use the “ping” command to verify that the thermal cycler can be accessed over the network</li> </ul>
	Router off or hung	<ul style="list-style-type: none"> <li>• Check that router is powered on</li> <li>• Power off router, wait 10 seconds, then power on router</li> </ul>
	Thermal cycler is powered off	Power on thermal cycler
	Virtual Personal Network (VPN) running on server or client computer	Disconnect from VPN and try again
	Thermal cycler not on same subnet as server	Follow the instructions in <a href="#">“Setting the IP Address”</a> on page 16” and assign the thermal cycler an IP address in same subnet as the server

Observation	Possible Cause	Recommended Action
Can't see thermal cyclers in previously present in Instruments tab of VeritiLink Software	Cables loose or disconnected	Check that cables are connected
	Router off or hung	<ul style="list-style-type: none"> <li>• Check that router is powered on</li> <li>• Power off router, wait 10 seconds, then power on router</li> </ul>
	Allow VeritiLink Software Control no longer set to Yes on thermal cyclers	Change Allow VeritiLink Software Control setting on thermal cyclers to Yes (see <a href="#">“Enabling VeritiLink Software Control”</a> on page 19), then follow instructions to identify instruments
	Thermal cyclers powered off	Power on thermal cyclers
Two or more thermal cyclers with same name in Instruments tab of VeritiLink Software		Rename one of the thermal cyclers (see <a href="#">“Setting the Instrument Name”</a> on page 15)
No email notifications received	Email server settings incorrect	<ul style="list-style-type: none"> <li>• In a command window, use the “ping” command to verify the email server computer can be accessed over the network. (You need the IP address or name of the computer.) If not, restart the server computer and check the Ethernet cables.</li> <li>• Check email server settings in VeritiLink Software.</li> <li>• Verify with your system administrator that the VeritiLink Software server has an email account.</li> <li>• Verify that the VeritiLink Software server user name and password are correct in VeritiLink Software.</li> </ul>
	Email address incorrect for user who should receive messages	Check user's email address in the Admin tab in the VeritiLink Software
	Email program considers VeritiLink Software spam	Add the VeritiLink Software server as a trusted email address

Observation	Possible Cause	Recommended Action
No notifications for “Verification Due” or “Verification Expired” received, but other notifications are correct	Verification Reminders not set up correctly	<ul style="list-style-type: none"> <li>• Verify expiration dates are correct</li> <li>• Verify date and time on thermal cyclers and computer are both correct</li> </ul>
Entries missing in Status Messages table or Verification History table	Date and time incorrect on thermal cyclers	<ul style="list-style-type: none"> <li>• To view the entries, try clicking <b>Prev Week</b> or <b>Next Week</b> in the Status Reports tab or searching for the thermal cycler by name</li> <li>• To permanently remedy the problem, set the date and time on the thermal cycler (see “<a href="#">Setting the Date and Time</a>” on <a href="#">page 18</a>) to match the date and time on the server computer</li> </ul>
Can’t log in to Veriti Thermal Cycler	User information on thermal cycler overwritten with user information from VeritiLink Software	<ul style="list-style-type: none"> <li>• When creating a user on VeritiLink Software, ensure that the user name exactly matches user name for existing thermal cycler user account</li> <li>• Use the password from VeritiLink Software</li> </ul>
Can’t change password or other user information from Veriti Thermal Cycler	When Allow VeritiLink Software Control is set to Yes, the Manage Users button on the Admin Menu screen is not shown	Make changes to user information using VeritiLink Software
Can access VeritiLink Software without logging in even though system is set to require log in	Web browser closed with the close button  instead of logging out	Always click  <b>Log Out</b> to leave VeritiLink Software.

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