

HeartStart Configure 3.0 SP1 User Guide

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Welcome to Philips HeartStart Configure

Use Philips HeartStart Configure (HeartStart Configure) to configure your HeartStart FR3, HeartStart FRx, and HeartStart HS1 defibrillators. This software helps you change your defibrillator settings to support your medical director's response protocol.

The user guide and the help system both provide instructions for performing common configuration tasks. Use the table of contents to access topics. You can also use a full-text search for topics, and view and print instructions.

You can access the user guide in two ways:

- In the Help menu, select **HeartStart Configure User Guide**.
- In the Windows Start menu, click **All Programs**, click **Philips HeartStart Configure 3.0**, and then click **User Guide**.

Indications for Use

HeartStart Configure enables an administrator to configure a HeartStart FR3, HeartStart FRx, or HeartStart HS1 defibrillator based on a medical director's desired protocol for response to a sudden cardiac arrest emergency. Configuration settings for HeartStart FR3 are changed via *Bluetooth* or data card, whereas configuration settings for HeartStart HS1 and HeartStart FRx are changed via infrared port. Current configurations are retrieved from, modified, and transmitted back to the AEDs. Configuration settings can be saved to a computer for future use or for use on other AEDs.

Typographical Conventions

The Philips HeartStart Configure User Guide uses the following conventions to help identify information.

Conventions	Used for	Example
Bold	Menu options, buttons, field names, and list box names.	Click Import on the File menu.
Input	Text needed for input. Can be alphanumeric. Sentences that contain text might not include end punctuation.	In the Configuration Name field, type Modified FR3 2005 configuration
<i>Italic</i>	Manual names.	<i>Instructions for Administrator's Guide.</i>
Screen messages	Text designed to distinguish defibrillator voice prompts and HeartStart FR3 screen messages from general text.	The defibrillator voice prompt announces Administration Press the center soft key (soft key #2). The screen message reads Ready for Data Transfer
Upper case	File extension types.	The configuration is exported as an XML file.
Lower-case italics	Specific filenames.	Name the configuration file <i>sample.xml</i> .



A yellow box with a triangular caution icon and exclamation mark identifies circumstances that can result in data corruption or information loss.



A blue box with a note icon contains usage information.



A green box with a light bulb tip icon contains information to help you complete a task.

Using Online Help

In the online help system, you can search for information using the full-text search feature, the glossary, or an index.

Use these four methods to access online help in HeartStart Configure:

- Press the F1 key to open online help for the selected feature.
- Click the **Help** tab to show and hide help that is related to the feature you are using. This online help pane displays to the right of the workspace.
- Click the help button on the toolbar.
- In the Help menu, select **HeartStart Configure Help**.

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Navigating this Guide

You can use the Table of Contents to locate information quickly. This document is organized to help you find instructions to complete your defibrillator configuration tasks.

This user guide is organized as follows:

- Use the overview section to install and use the software.

This section includes the following topics:

- Installing HeartStart Configure
- Activating the software
- Introducing HeartStart Configure
- Understanding How to Use HeartStart Configure

- Use the Changing Defibrillator Settings section to retrieve, modify, and send a configuration to a defibrillator.

This section includes the following topics:

- Working with HeartStart FR3 Defibrillators
- Working with HeartStart FRx Defibrillators
- Working with HeartStart HS1 Defibrillators

- Use the Working with Configurations section to save configurations for reuse, transfer configuration settings to other users, and customize the way that configurations display in the software.

This section includes the following topics:

- Managing Configurations
- Transferring Configurations
- Displaying Information

- Use the Contacting Customer Support section to resolve product software issues.
- Use the Working with the System Log section to troubleshoot software issues and view system information.
- Use the appendixes to look up resource and reference information:

2 - Navigating this Guide

- Appendix A . Describes how to obtain technical support.
- Appendix B provides details on each configuration parameter and its choice of settings.
- Appendix C explains the voice messages you may hear while transferring a configuration or customizing defibrillator settings.
- Appendix D lists System Log messages. Use the System Log to monitor system performance or troubleshoot HeartStart Configure activity.
- The glossary lists terms that are used throughout the user guide and online Help system.
- Use the Index to look up topics when reading the user guide. When you are using online Help on your computer, you can click the link to open the associated topic.

Installing HeartStart Configure

This topic describes how to install Philips HeartStart Configure software, identify the system requirements, use the installation CD-ROM, start the software, and uninstall HeartStart Configure from your computer.

HeartStart Configure is shipped with a CD and two printed materials: the Quick Reference Guide, and a Proof of Purchase Certificate.

- The CD contains the HeartStart Configure software, the user guide, and a ReadMe file.
- The Proof of Purchase Certificate contains the product serial number you will need to activate the software.
- The Quick Reference Guide contains the system requirements and installation instructions.

Use the CD to install HeartStart Configure on your computer. Ensure that your computer meets the recommended system requirements to install and run this software.

Once you insert the CD into your computer, the installation wizard automatically runs and prompts you to install the software. In certain cases, you will need to manually start the setup program to run the installation. For more information, see [Using the Installation CD-ROM on page 15](#).

You must activate your software the first time you use it. You can do this either by Internet or by email. The preferred activation method is by Internet, since there is no waiting period. However, if you need to activate your software using email, see [Activating the Software by Email on page 18](#).

System Requirements

These tables describe the minimum requirements to run HeartStart Configure.

Software Requirements

Component	Requirements
Operating system	Microsoft® Windows XP™ Professional, or Microsoft® Windows 7™ Professional (32- or 64-bit)
Windows security	Use standard Microsoft Windows security features to manage user access

Hardware Requirements

Component	Requirements
Processor speed	Minimum: 1 GHz x86 or x64 processor
Display	Minimum: 1024 x 768 Recommended: 1280 x 1024 or higher
Disk space	Required: 300 MB of available disk space during software installation
Internet connection	Required connection to activate the application software and to receive software updates

Accessories

Component	Requirements
PDF Reader	Such as Adobe Acrobat Reader 9.0. Required to view the HeartStart Configure 3.0 SP1 User Guide
HeartStart FR3 Secure Digital (SD) card	Required if you configure an FR3 defibrillator using a secure digital (SD) card For help choosing a secure digital (SD) card, see Selecting Accessories on page 24 .

Component	Requirements
Email client (MAPI compliant)	Required to complete software installation if you are activating the software by email
Infrared Data Association (IrDA) adapter (for HeartStart FRx and HeartStart HS1 only)	Required to retrieve and send information from HeartStart HS1 or HeartStart FRx defibrillators Infrared adapters are available from Philips. For help choosing an infrared adapter, see Selecting Accessories on page 24 .
Card reader (for HeartStart FR3 only)	Required if you configure an FR3 defibrillator using a secure digital (SD) card For help choosing a card reader, see Selecting Accessories on page 24 .
<i>Bluetooth</i> adapter (for HeartStart FR3 equipped with <i>Bluetooth</i> only)	Required if you configure an FR3 defibrillator using the <i>Bluetooth</i> 2.0 wireless transfer interface For help choosing a <i>Bluetooth</i> adapter, see Selecting Accessories on page 24 .

Using the Installation CD-ROM

You must use the installation CD-ROM to install HeartStart Configure on your computer. You can install HeartStart Configure on only one computer.

If you need to reinstall this software on your computer or install it on a different computer, you must first uninstall the software.

The CD contains:

- Philips HeartStart Configure software
- HeartStart Configure user guide and quick reference guide
- A ReadMe file that describes the software release. The ReadMe file might also contain late-breaking news related to the software release.



You must have administrator privileges to install HeartStart Configure. HeartStart Configure is installed on a per-user basis.

To install from the CD



You can install Philips HeartStart Configure to the default location, or select a preferred destination folder to create the directory.

1. Insert the Philips HeartStart Configure CD in the drive on your computer. The Philips HeartStart Configure installation wizard should start automatically. If it does not, then use Windows Explorer to browse the CD for the *Configure30Installer.exe* file, and double-click it.
2. Click **Install** to start the installation, and follow the on-screen instructions.
3. Click **Finish**.

Starting HeartStart Configure

After installation, HeartStart Configure is available from the All Programs menu.

To start Philips HeartStart Configure

1. Click **Start**, and then click **All Programs**.
2. Click **Philips HeartStart Configure 3.0**, and then click **Configure**.

Uninstalling HeartStart Configure

If you want to reinstall HeartStart Configure on your computer or install the software on a different computer, you must uninstall the software from your computer while it is connected to the Internet.

You cannot activate and use the software on a different computer until you have first uninstalled and deactivated the software on the current computer.

If you do not have an Internet connection, see [Contacting Customer Support on page 77](#).

To uninstall Philips HeartStart Configure from your computer


1. Verify that your computer is connected to the Internet.
2. From the Start menu, click **Control Panel**.
3. Click **Add or Remove Programs**.
4. Select **Configure** from the list.
5. Click **Remove**.

Activating the Software

In order to use Philips HeartStart Configure, you must first activate your software. You can do this either by Internet (in which case you must have an Internet connection on your computer) or by email.

Activating the Software by Internet

Philips recommends that you activate your software by Internet, since there is no wait period to use the software using this method.

 Your computer must have an Internet connection in order to immediately activate and use your software.

To activate the software by Internet

1. Start HeartStart Configure.
The HeartStart Activation Wizard opens.
2. In the **Serial Number** box, type the product serial number that you received.
Your serial number is an 18-digit alphanumeric code under a bar code, see **1** in the following figure.

 All "0" characters are numeric zero.



3. Click **I want to activate the software over the Internet.**

4 - Activating the Software

4. Click **Activate**.

The software sends the information, and a confirmation message states that the software is ready for use.

Activating the Software by Email

Using the Internet to activate HeartStart Configure is the preferred activation method.

If you cannot activate your software over the Internet, however, then you can click **email Philips Activation Support**. If you need help, contact customer support. However, support for issues that involve email activation is available only in English.

Activation by email can take several business days. During this period, you cannot use the software. Please allow sufficient time for your request to be processed.

After Philips Customer Support receives your email activation request, you will receive an email with the activation code.

You must have an email application installed on the computer that runs HeartStart Configure. If an email application is not on your computer, then see [Contacting Customer Support on page 77](#).

To send the software activation request by email

1. In the HeartStart Activation Wizard, type the product serial number that you received into the **Serial Number** box.
2. Click **I want to activate the software by email**.
3. Click **Next**.
4. Click **Request Activation Code** to open your email application.
Your email application opens a new message with the Activation.bin file attached. You can type additional information as needed.
5. Click **Send** to send the activation request email to Philips Customer Support.
Customer support will send you an email with the activation code.

When you receive an email from Customer Support

1. Start HeartStart Configure.
The HeartStart Activation Wizard appears.
2. Click **I want to activate the software by email**.
3. Click **Next** to access the Activate by Email page.

4. Type the activation code in the **Enter your activation code here** field.
5. Click **Activate**.

The wizard displays a confirmation message. Your software is ready for use.

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Introducing HeartStart Configure

HeartStart Configure is a software product used to configure your HeartStart FR3, HeartStart FRx, or HeartStart HS1 defibrillator based on your medical director's desired protocol for response to a sudden cardiac arrest (SCA) emergency.

HeartStart Configure 3.0 is a medical device according to US Food and Drug Administration (FDA) and EU medical device requirements.

This software transfers a new configuration to your defibrillator using one or more transfer methods.

Philips HeartStart Configure software helps you quickly configure a HeartStart defibrillator. With this software, you can do the following:

- Use menu options and workspaces that help you retrieve and send a configuration, and create, view, and modify parameter settings in a configuration
- Transfer a configuration from your computer to a defibrillator
- Create, edit, save, and delete configurations, and make them available for use on another computer that runs HeartStart Configure
- Use wizards to guide you through defibrillator configuration steps

What is Configure?

With HeartStart Configure, you can manage a defibrillator configuration on your computer.

- Retrieve and modify an existing configuration, and then send the modified configuration to your defibrillator.
- Create and save a configuration for reuse later to standardize the behavior of an entire fleet of defibrillators.

5 - Introducing HeartStart Configure

- Exchange configurations with other users on computers that run HeartStart Configure so that they can standardize the behavior of their defibrillators.

To create or modify a configuration, you do not have to be connected to your defibrillator. You can use HeartStart Configure to create a configuration on your computer, and then transfer the configuration to your defibrillator later.

HeartStart Configure uses a common set of tasks to help you change the settings on your HeartStart FR3, HeartStart FRx, and HeartStart HS1 models. The following is a common task:

1. Establish a connection between HeartStart Configure and the HeartStart defibrillator to retrieve the defibrillator's current configuration.
2. In the Configurations workspace, modify the defibrillator configuration.
3. Load the modified configuration to the defibrillator to set its behavior in an emergency setting.
4. Save the configuration for reuse later on other defibrillators.

You can also use HeartStart Configure to import configurations created in older programs, such as HeartStart Configure 2.0 and Event Review 3.5.

Who Uses Configure?

Typical HeartStart Configure users include Automated External Defibrillator (AED) program administrators, medical directors, hospital biomedical engineers, and emergency medical technicians. They do the following:

- View and update defibrillator configurations to determine defibrillator behavior during an emergency
- Set the HeartStart FR3 date and time, modify language settings, and enable bilingual operation

The System Administrator or IT users install the software, view and manage system activity, and perform troubleshooting activities.

Configuring a Defibrillator

To configure a defibrillator, you retrieve the current configuration from the defibrillator, view it, change its settings, and then send it back to the defibrillator.

You can also save this configuration for later use to standardize the setting of other defibrillators or a fleet of defibrillators.



Changing configuration parameter settings affects the way that a defibrillator performs in an emergency.

Configuration settings differ for each defibrillator model. When you configure a HeartStart defibrillator, you change the default settings entered in the defibrillator's memory at the factory.

The method used to transfer configuration information from the defibrillator to Philips HeartStart Configure and back again varies for each defibrillator model. The HeartStart FR3 uses *Bluetooth* or a secure digital (SD) card to transfer a configuration, while the HeartStart FRx and HeartStart HS1 both use infrared (IrDA) to transfer configuration information.

The following table lists topics that help you configure a HeartStart defibrillator.

Configuration Topics

Tasks	Details
Retrieve and view a defibrillator configuration	See the appropriate topic for the HeartStart defibrillator model: Retrieving a HeartStart FR3 Configuration on page 37. Retrieving a HeartStart FRx Configuration on page 49. Retrieving a HeartStart HS1 Configuration on page 55.
Change the configuration settings	See Modifying Configurations on page 64.
Send a modified configuration to a defibrillator	See the appropriate topic for the HeartStart defibrillator model: Sending a HeartStart FR3 Configuration on page 40. Sending a HeartStart FRx Configuration on page 52. Sending a HeartStart HS1 Configuration on page 58.
Save a configuration for later use	See Saving Your Work on page 66.

Tasks	Details
Delete a configuration	See Deleting Configurations on page 66.
Use configuration files from another computer	See Importing a Configuration File on page 68.
Save configuration files to other computers	See Exporting a Configuration File on page 69.
Save a configuration for later use	See Saving Your Work on page 66.
Delete a configuration	See Deleting Configurations on page 66.
Use configuration files from another computer	See Importing a Configuration File on page 68.
Save configuration files to other computers	See Exporting a Configuration File on page 69.

Selecting Accessories

Select the accessory you need for your defibrillator model or computer. Accessories are identified by a reference number. To order an accessory, contact your local Philips representative. For more information, see [Contacting Customer Support](#) on page 77.

Accessory	Description
Computer IrDA adapter	Product ID: ACT-IR ACTiSYS ACT-IR4002US or any Infrared Data Association (IrDA) approved adapter
HeartStart FR3 defibrillator <i>Bluetooth</i> wireless technology transceiver module	Product ID: 989803150081
HeartStart FR3 Language Card	Product ID: 989803150101
HeartStart FR3 Secure Digital (SD) card	Product ID: 989803150061

Accessory	Description
Secure Digital (SD) card reader	Product ID: M3524A You can use any Microsoft®-compatible SD card reader. For more information, see http://www.microsoft.com/hardware/default.aspx
Supported Microsoft® Windows Bluetooth adapters	Most Microsoft®- compatible Bluetooth adapters work with HeartStart FR3 defibrillators, such as IO Gear GBU421

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Understanding How to Use HeartStart Configure

The navigation pane on the left contains links to select tasks. Selected tasks are displayed in the workspace to the right of the navigation pane.

Use the navigation pane to select three workspaces:



- Use the **Getting Started** navigation button to learn more about HeartStart Configure, select accessories for your defibrillator, or check for software updates.
- Use the **Configurations** navigation button to retrieve a configuration, modify its settings, and send the configuration back to the defibrillator to change its behavior. You can also import and export a defibrillator configuration, set the HeartStart FR3 date and time, and change HeartStart FR3 language settings.
- Use the **Administration** navigation button to view the System Log, view system activity, or send the System Log to Philips technical support for review.

To access online Help

- Press **F1** to display the help contents or (on the menu or toolbar) click **Help** and then click **HeartStart Configure Help**.
- You can also click the **Help** tab on the right side of the window to open the Help pane. A Help topic appears for the workspace that you are using. Click **Related Topics** to navigate to other supporting topics.

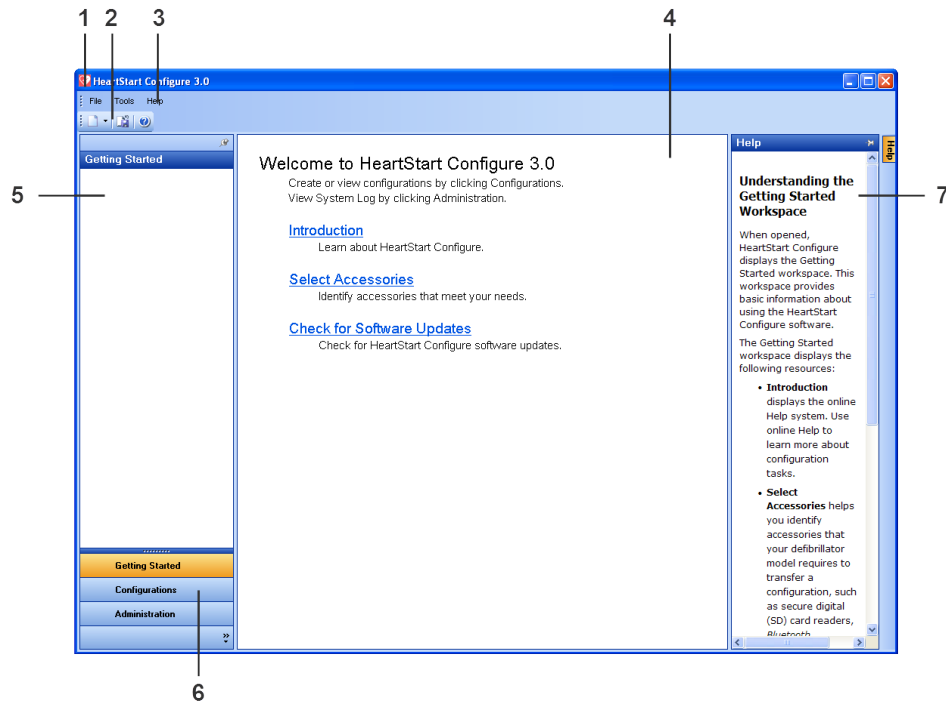
To access the user guide

- On the menu, click **Help**, and then click **HeartStart Configure User Guide**.

The first time that you start the software, the navigation and help panes are both open. You can minimize them by clicking the Auto Hide  button in the upper right corners of either pane. The panes are then shown as tabs on the edge of the window. To temporarily maximize either pane, hover the cursor over its tab. To restore a pane, click the Auto Hide  button again.

6 - Understanding How to Use HeartStart Configure

The following illustration describes available navigation buttons, features, and links in HeartStart Configure:




Number	Description
1	The title bar displays the product name and software version.
2	The toolbar displays the actions that you can perform for the selected workspace as represented by icons.
3	The menu bar displays appropriate menus for the workspace. Use the menu bar to select the actions that you want to perform.
4	In the workspace , you can work on defibrillator configuration tasks. The options and features change depending on the navigation button you select.
5	The navigation pane lists configuration tasks that you can perform in the workspace. The pane content changes depending on which button is clicked and the workspace that is active.
6	The navigation buttons in the navigation pane display the Getting Started, Configurations, and Administration workspaces.
7	The Help tab displays the online help topic for the workspace.

Using the Navigation Pane

The navigation pane provides quick access to features in HeartStart Configure. For example, when you click the Configurations button, the navigation pane displays Configuration Tasks and Saved Configurations. When you click the **Configurations** button, the toolbar displays icons that you can use to change a defibrillator's settings.

Each pane lists features that you can use in the workspace. For more information, see [Using the Workspace on page 29](#).

When you first start the software, the navigation pane is open. You can also hide or temporarily display it.

Minimize the navigation pane by clicking the Auto Hide  button in the upper right corners of either pane. The pane is represented by a tab on the left edge of the window. To temporarily display the pane, hover the cursor over the **Navigation** tab.

To restore a pane, click the Auto Hide  button again.

Using the Workspace

The workspace is the large area located to the right of the navigation pane. The information it displays depends on the navigation pane button you selected.

Each navigation button opens a separate workspace.

- The **Getting Started** workspace includes information on how to use the software, select accessories, and check for software updates. This workspace appears when you start the software.
- In the **Configurations** workspace, you can configure a defibrillator. You can also set the HeartStart FR3 date and time, and change the language settings for HeartStart FR3 defibrillators.
- The **Administration** workspace displays the System Log of software activities.

Understanding the Getting Started Workspace

When opened, HeartStart Configure displays the Getting Started workspace. This workspace provides basic information about using the HeartStart Configure software.

The Getting Started workspace displays the following resources:

- **Introduction** displays the online Help system. Use online Help to learn more about configuration tasks.
- **Select Accessories** helps you identify accessories that your defibrillator model requires to transfer a configuration, such as secure digital (SD) card readers, *Bluetooth* adapters, and infrared (IrDa) adapters.
- **Check for Software Updates** displays any updates to HeartStart Configure that are available for download. Philips encourages you to check for updates every time you use HeartStart Configure.

Understanding the Configurations Workspace

In the Configurations workspace, you can decide how your defibrillator operates during a cardiac arrest emergency.

In the navigation pane, click **Configurations** to open the Configurations workspace. Here you can do the following:

- Retrieve and view the current settings from your defibrillator
- Modify defibrillator configuration settings
- Transfer the resulting configuration to your defibrillator
- Save your configuration for reuse later on other defibrillators
- Delete a previously saved configuration file
- Export a configuration so that other users can standardize how their defibrillators operate in an emergency
- Import a configuration created by a different user from another computer or file system

The Configurations workspace includes two panes:

- Use **Configuration Tasks** to modify parameter settings or save a configuration for reuse later. You can also restore a defibrillator's default settings.
- Use **Saved Configurations** to select a previously created configuration from a list, open the configuration in the workspace to modify it, and then send it to a defibrillator.

You can set the HeartStart FR3 date and time, and change language settings:

- To set the date and time, see [Setting the HeartStart FR3 Clock on page 42](#).
- To set the language and enable bilingual operation, see [Setting the HeartStart FR3 Language on page 44](#).

You can use configurations that were created on other computers that run HeartStart Configure, Event Review 3.5, or HeartStart Configure 2.0. You can also export a configuration to another computer. This allows other users of HeartStart Configure to update their defibrillators in a standardized way.

Understanding the Administration Workspace

The Administration workspace contains the System Log. Use the System Log to view system activity recorded by the software or to conduct troubleshooting. For more information, see [Working with the System Log on page 73](#).

HeartStart Configure records system activity and writes it to the System Log as messages. You can view a table of System Log messages. For more information, see [System Log Messages on page 115](#).

Customer support might ask you to mail the HeartStart Configure System Log information. On the Help menu, click **Email logs to Customer Support**.

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Changing Defibrillator Settings

With Philips HeartStart Configure software, you can change how your defibrillator behaves in an emergency. You can create a configuration to change the behavior of a single defibrillator, or a fleet of defibrillators.



Changing a defibrillator's configuration settings can change its behavior during an emergency. Before modifying defibrillator configurations, refer to the device owner's manual.

This section introduces basic configuration tasks for the HeartStart FR3, HeartStart FRx, and HeartStart HS1 defibrillator models.

More advanced configuration tasks are covered in [Working with Configurations on page 61](#).

Basic configuration tasks include the following:

- Retrieving and viewing a defibrillator's configuration
- Modifying a configuration
- Sending the configuration to your defibrillator

You can also save a configuration for later use on other defibrillators, or export a configuration to colleagues; they can then update and standardize the configuration of their defibrillators.

Working with HeartStart FR3 Defibrillators

With the HeartStart FR3 defibrillator, you can retrieve and send a configuration using *Bluetooth* or a secure digital (SD) card. You can also set the time and date, change the language settings using a secure digital (SD) card, or use an optional language card. When you change language settings, you can also choose to operate the defibrillator in bilingual mode.

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The HeartStart FR3 displays information using an LCD screen.



Because many patient-care protocol parameters interact with each other, it is important to understand how each parameter setting affects the protocol. For more information, either see the **Instructions for Administrators Guide** or consult your medical director.

In the **Configurations** navigation pane, you can do any of the following:

- Click **Create for FR3** to create a new configuration.
- Click **Set FR3 Clock** to set the HeartStart FR3 date and time.
- Click **Set Language Options** to set your defibrillator primary language, or enable bilingual operation.

Typical HeartStart FR3 Configuration Tasks

The following table lists tasks that you typically complete with a HeartStart FR3.

Tasks	Details
Preparing the HeartStart FR3 to transfer configuration information	See Preparing the HeartStart FR3 to Transfer Configurations on page 35. To use Bluetooth connections: See Using Bluetooth Connections on page 36. See Setting up the Bluetooth Connections and Adapters on page 37. To use a secure digital (SD) card: See Using an SD Card to configure a HeartStart FR3 on page 37.
Retrieving a HeartStart FR3 configuration	See Retrieving a HeartStart FR3 Configuration on page 37.
Modifying parameter settings	See Modifying Configurations on page 64.
Sending a HeartStart FR3 configuration to the defibrillator	See Sending a HeartStart FR3 Configuration on page 40.
Setting the HeartStart FR3 clock	See Setting the HeartStart FR3 Clock on page 42.
Setting the HeartStart FR3 language	See Setting the HeartStart FR3 Language on page 44.

Preparing the HeartStart FR3 to Transfer Configurations

The HeartStart FR3 uses an optional *Bluetooth* or a secure digital (SD) card to transfer information between the defibrillator and computer.



You can use either *Bluetooth* or an SD card to transfer a configuration to your HeartStart FR3.

To prepare the defibrillator to transfer a configuration, you must turn the defibrillator on. Make sure that the pads connector is not in place.

When you connect the HeartStart FR3 defibrillator to your computer running HeartStart Configure using *Bluetooth*, you can perform the following tasks:

- Retrieve and send a configuration
- Set the HeartStart FR3 date and time

To determine if HeartStart FR3 is *Bluetooth*-enabled, the HeartStart FR3 must have **Wireless Data Transfer** selected in Administration mode. For more information on *Bluetooth* connections, see [Using Bluetooth Connections on page 36](#).

The HeartStart FR3 must be in Administration mode to perform the following tasks:

- Download the current configuration from the HeartStart FR3 to your computer running HeartStart Configure
- Load a configuration to HeartStart FR3 using either a *Bluetooth* connection or an SD data card
- Set the HeartStart FR3 date and time using *Bluetooth*

If you cannot access the Wireless Data Transfer mode, then you do not have the *Bluetooth* option. Instead, use a secure digital (SD) card to transfer a configuration. You must also use an SD language card to change HeartStart FR3 language settings. You can use a language card that comes with the HeartStart FR3 defibrillator or create one in HeartStart Configure. For more information, see [Using an SD Card to configure a HeartStart FR3 on page 37](#).


To place a HeartStart FR3 defibrillator in Administration mode

1. Unplug the pads connector.
2. Insert the HeartStart FR3 battery. The defibrillator sounds a beep, and the power light at the top is solid green. Wait until the green light begins periodically flashing.

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3. Quickly press the green ON/OFF button. Voice prompts instruct you to plug in pads connectors. **Disregard this prompt in this instance.** These voice prompts stop once you place the defibrillator in Administration mode.
4. Press the green ON/OFF button again. The Administration tab appears. Below the display, press and release the left soft key (soft key #1) to enter Administration mode.
5. The HeartStart FR3 enters Administration mode, and Administration appears on the LCD display screen.

In Administration mode, you can take a variety of other actions. These are discussed in the following sections.

 If you do not press a soft-key button while the HeartStart FR3 is in the Administration mode, or if no action occurs for two minutes after performing a transfer using *Bluetooth*, Administration mode times out. When this happens, HeartStart FR3 enters standby mode. A flashing green light above the green ON/OFF button identifies the standby mode.

To exit Administration mode

- To exit Administration mode, press the green **ON/OFF** button. Wait 10 seconds for the defibrillator to shut down.

Using *Bluetooth* Connections

 You can transfer information using *Bluetooth* to your HeartStart FR3 only if you purchased the *Bluetooth* option.

To verify that you have a Bluetooth card installed, place the HeartStart FR3 defibrillator in Administration mode, and then click the **Wireless Data Transfer** option. If this option is not available, then you do not have a *Bluetooth*-equipped HeartStart FR3.

When you transfer a configuration or set the HeartStart FR3 clock, HeartStart Configure connects your computer to the HeartStart FR3 defibrillator using *Bluetooth*, and then allows you to transfer configuration information.

When you set up the *Bluetooth* software and adapter, ensure that the defibrillator and the computer that runs HeartStart Configure are within *Bluetooth* transmission range. The computer and the defibrillator should be within 30 feet (10 meters) of each other.

In HeartStart Configure, you can change the default *Bluetooth* wireless PIN four-digit number **2071** to a different number if you want to implement your own security measures for future configuration changes and patient data downloading.

If you would like to purchase a *Bluetooth* card for your defibrillator, click Getting Started in the navigation pane, and then click the Select Accessories link.

Setting up the *Bluetooth* Connections and Adapters

In most cases, if you plug your *Bluetooth* adapter into your computer, your computer automatically installs the drivers needed for your adapter. If you need to install the adapter manually, however, then follow the instructions that came with your *Bluetooth* adapter.

Using an SD Card to configure a HeartStart FR3

If you do not have a *Bluetooth* card installed on the HeartStart FR3 defibrillator or computer, you can use a secure digital (SD) card to retrieve the configuration from the HeartStart FR3 defibrillator, modify it in HeartStart Configure, save the settings to the SD card, and then use the SD card to load it on the HeartStart FR3 defibrillator.

The HeartStart FR3 also uses a special language card (containing a folder called a language pack) to change primary language settings, or to enable bilingual options. HeartStart Configure also has a language pack that you can use for this purpose. For more information, see [Setting the HeartStart FR3 Language on page 44](#).

To read an SD card, use your computer's card reader or plug an external card adapter into your computer. Any SD card adapter that Windows Explorer recognizes as a removable disk is acceptable.

Retrieving a HeartStart FR3 Configuration

Before you modify a HeartStart FR3 configuration, you might want to view the current configuration.


You can use *Bluetooth* to retrieve a configuration from the HeartStart FR3 and save it in HeartStart Configure. If you did not purchase the *Bluetooth* option, then use a secure digital (SD) card to transfer your configuration settings from your defibrillator.

To use the *Bluetooth* option, ensure that there is a *Bluetooth* card or adapter plugged into your computer. To set up your *Bluetooth* card and connection, see [Using Bluetooth Connections on page 36](#).

To retrieve a HeartStart FR3 configuration using *Bluetooth*

1. Start HeartStart Configure on your computer.
2. Place the HeartStart FR3 in Administration mode. For details, see [Preparing the HeartStart FR3 to Transfer Configurations](#) on page 35.
3. On the HeartStart FR3, use the left soft key (soft key #1) to navigate to **Wireless Data Transfer** mode, and then press the center soft key (soft key #2) to select this mode.

The screen message Ready for Data Transfer appears.

4. In HeartStart Configure, on the toolbar, click **Retrieve configuration from defibrillator**  or, on the File menu, click **Retrieve**.
5. On the Welcome to the Configuration Transfer Wizard window, click **Next**.
6. On **Select Defibrillator** page, click the row with HeartStart FR3 from the list, and then click **Next**.

The wizard instructs you to stand by while the configuration is transferred. The wizard displays the following columns:

- Model: **FR3**
- Serial number: for example, **C09B-00001**
- Interface: **Bluetooth**

The wizard displays a page indicating whether the configuration retrieve operation is successful or not.

7. Click **Finish**.

The Configurations workspace displays the configuration fields.

To retrieve a HeartStart FR3 configuration using an SD card

1. Verify that there is an SD card in the HeartStart FR3. The slot is located inside the battery compartment.
2. Place the HeartStart FR3 in Administration mode. For more information, see [Preparing the HeartStart FR3 to Transfer Configurations](#) on page 35.
3. On the HeartStart FR3, use the left soft key (soft key #1) to navigate down the list. Using the center soft key (soft key #2), select Setup.
4. Using the left soft key (soft key #1), navigate down the list. Then, use the middle soft key (soft key #2) to select Save Setup to Data Card.

A verification message, Saved to Card, appears.

5. To turn the defibrillator off, press the green **ON/OFF** button.
6. Remove the battery from the HeartStart FR3, and remove the SD card.

7. Insert the card into your computer's SD card reader or adapter.
8. In HeartStart Configure, click the **Configurations** navigation button.
The Configurations workspace opens.
9. From the toolbar or file menu, click **Retrieve**.
The Welcome to the Configuration Transfer Wizard page displays.
10. Click **Next**.
The Select Defibrillator page displays, and shows available SD card drives. Unavailable drives are unavailable.
11. Click the drive with the SD data card, and then click **Next**.
The Transfer Wizard indicates whether the configuration retrieve operation is successful or not.
12. Click **Finish**.
The retrieved configuration appears in the Configurations workspace.

Modifying a HeartStart FR3 Configuration

Use the **Configurations** workspace to modify a configuration's settings. Each field has a menu list that lists the allowed settings for that field.



Because many patient-care protocol parameters interact with each other, it is important to understand how each parameter setting affects the protocol. For more information, see the *Instructions for Administrators Guide* or consult your medical director.

HeartStart Configure provides tool tips with short descriptions of each configuration parameter. Hover the cursor over an information icon near the parameter to display the description.


Keep these two typographical conventions in mind when using the fields and menu list to select parameter settings:


- In fields, the factory default settings are in regular black text, and nondefault settings are highlighted as bold blue text. This helps make modified fields more obvious.
- In menu lists, the factory default settings are highlighted in bold text, and nondefault values are in regular black text.

HeartStart Configure also turns fields on and off based on other settings you select. If a field has gray wavy lines through it, it depends on another field and cannot be changed until that related field is modified.

To modify a HeartStart FR3 configuration



You can set all fields to original factory default settings by clicking **Restore Defaults** .

1. Click the **Configurations** navigation button to display the Configurations workspace.
2. (Optional) If you did not retrieve the HeartStart FR3's current configuration, then in Configuration Tasks, click the **Create for FR3** link to create a new configuration.
3. (Optional) Type a meaningful name and description in the **Configuration Name** and **Configuration Description** fields.
The new information replaces the selection.
4. Click the parameter that you want to change.
A menu list appears.
5. In the open menu list, click a setting.
6. (Optional) When you are satisfied with your changes, on the File menu or toolbar, click **Save**  to save it for future use.

Using Click Mode

To prevent unintentional setting selections, use Click Mode. This is the default selection mode for mouse operation. Click Mode means that you must first click a field to see the menu of available settings, and then click the menu list to select a setting. The menu list disappears when you click away from the field.

If you uncheck Click mode (by clicking Tools, then **Options**), you can hover the cursor over a field to display the menu list (without needing to click), and then click an item in the list to change a setting.

Sending a HeartStart FR3 Configuration


After you retrieve a configuration from the HeartStart FR3 and modify the configuration settings in the Configurations workspace, you can send the configuration to your HeartStart FR3 to modify how the defibrillator behaves in an emergency.

Alternatively, if you did not send the resulting configuration to your HeartStart FR3 using *Bluetooth*, then use an SD data card to transfer your configuration settings to your defibrillator.

To send a HeartStart FR3 defibrillator configuration using *Bluetooth*

1. Start HeartStart Configure on your computer.
2. Place the HeartStart FR3 in Administration mode. For details, see [Preparing the HeartStart FR3 to Transfer Configurations](#) on page 35.
3. On the HeartStart FR3, use the left soft key (soft key #1) to navigate to **Wireless Data Transfer** mode, and then press the center soft key (soft key #2) to select the mode.

The screen message Ready for Data Transfer appears.


4. On the File menu, click **Send**, or on the toolbar, click **Send configuration to defibrillator** .

The Welcome to the Configuration Transfer Wizard page appears.

5. Click **Next**.
6. Click the HeartStart FR3 configuration, and then click **Next**.
7. On the **Select Defibrillator Page**, wait for the HeartStart FR3 to appear in the list.
8. Click the row with the correct defibrillator in it, and then click **Next**.
A page appears instructing you to stand by while the configuration is transferred.
The Transfer Wizard displays a page indicating whether the configuration send operation is successful or not.
9. Click **Finish**.

To transfer a HeartStart FR3 configuration using an SD card

1. If you have not yet already done so, insert an SD card in your computer's SD card reader or adapter.

2. On the File menu or toolbar, click **Send** .

The Welcome to the Configuration Transfer Wizard page appears.

3. Click **Next**.

The Select Defibrillator page opens and displays removable drives, highlighting the drive with the SD card.

4. Click the drive with the SD data card, and then click **Next**.

A page appears instructing you to stand by while the configuration is transferred. This page shows the model, serial number, and interface (connection) information.

The Transfer Wizard displays a page indicating whether the send operation is successful or not.

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5. Click **Finish**.

To load a HeartStart FR3 defibrillator configuration using an SD card

1. Remove the SD card from your computer's SD card reader or adapter.
2. Remove the HeartStart FR3 battery.
3. If there is an SD card in your HeartStart FR3, remove it. It is located inside the battery compartment.
4. Insert the SD card with your saved configuration in the HeartStart FR3 SD card slot.
5. Replace the HeartStart FR3 battery.
The defibrillator beeps once.
6. Press the green **ON/OFF** button to turn on the defibrillator.
7. Place the defibrillator in Administration mode. For more information, see [Preparing the HeartStart FR3 to Transfer Configurations](#) on page 35.
8. Press the left soft key (soft key #1) to use the Down arrow.
9. Press the middle soft key (soft key #2) to select Setup.
10. Press the left soft key (soft key #1) to navigate down the list to Load New Setup
11. Press the middle soft key (soft key #2) with the blue check mark to load the configuration.
The HeartStart FR3 displays the screen message, Setup Complete.

Setting the HeartStart FR3 Clock

Use the **Set FR3 Clock** link in the left navigation pane to synchronize the HeartStart FR3 date and time with that of your computer.

The HeartStart FR3 must have the *Bluetooth* option to change the clock using HeartStart Configure.



Philips recommends that you remove case data from the HeartStart FR3 defibrillator before you synchronize the date and time. This is to prevent time stamps in the patient data from inadvertently being changed. Use one of the Philips Event Review data management solutions first to download your patient event summary data.

The Set Clock Wizard consists of the following pages:

- A **Welcome** page where you can learn more about the wizard. You can choose to bypass this page in the future.
- A **Date and Time** page shows the computer's date and time. The date and time that is running on the computer displays in the wizard, and the software continues to update the time until it communicates with the defibrillator, at which point the date and time are adjusted. You can also use the control box to further adjust the time in minutes if you want to use a time that is different from that of your computer.
- A **Selection Page** displays information about the state of your defibrillator.

The following table describes the information shown in each field of the selection page:

Data Column	Details
Connection State	Whether or not the defibrillator is ready. Possible values are: Ready: the defibrillator is compatible with the information being transferred. Offline : the defibrillator was found in a recent scan but is now not available for connection. Incompatible: the defibrillator is ready but cannot receive the information being transferred.
Serial Number	The defibrillator's serial number found in the scan
Connection	The type of defibrillator transfer method used
Model	The defibrillator model

- A **Processing** page indicates that the computer and defibrillator are connecting.
- A **Status** page indicates either success or failure for the time-set operation.

To synchronize the HeartStart FR3 clock

1. Place the HeartStart FR3 in Administration mode.

For details, see [Preparing the HeartStart FR3 to Transfer Configurations on page 35](#).

2. In Philips HeartStart Configure, click **Configurations**.

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3. Under **Configuration Tasks** in FR3 Configuration, select the **Set FR3 Clock** link to start the FR3 Set Clock wizard.

To set the HeartStart FR3 to a time that is different than that of your computer, use the **Offset in Minutes** control box. You can set the HeartStart FR3 defibrillator's time in minutes forward or backward relative to the computer's clock, up to a maximum of 1,440 minutes (24 hours).

4. Follow the on-screen instructions to transfer the time and date settings to the HeartStart FR3 defibrillator. If the transfer is successful, the HeartStart FR3 defibrillator displays the correct date and time.

Setting the HeartStart FR3 Language

Using HeartStart Configure, you can do the following:

- Change language settings for the locale in which you use the defibrillator
- Change the primary language
- Choose an optional secondary language for bilingual operation

When the HeartStart FR3 is configured for bilingual operation, responders can choose between a primary and a secondary language after turning on the HeartStart FR3.

You must use a secure digital (SD) card to save your language configuration and transfer it to a HeartStart FR3. For more information, see [Using an SD Card to configure a HeartStart FR3 on page 37](#).

The **Set Language Options** wizard consists of the following pages:

- A **Welcome** page. You can choose to bypass this page in the future.
- A **Language Pack Location** page. Here you can choose from a list of available language packs. HeartStart Configure has a HeartStart FR3 language pack, as does the available HeartStart FR3 language card. You can use either.
- A **Specify Language Package Options** page. Here you can choose a primary language for the HeartStart FR3 from a list of languages. You can also select a secondary language for bilingual operation.
- The **Save Configuration Options** page. Here you can select the drive on which to save your language selections. The page displays information for the selected location, such as the volume name, the file system, free space available, and the total size of the file.
- A status page indicates whether you have successfully saved your language configuration or not.

To set HeartStart FR3 language options

1. On the HeartStart Configure navigation pane, click the **Configurations** navigation button to display the Configurations workspace.
2. On the navigation pane under **FR3 Configuration**, click **Set Language Options**.

The Set Language Options Welcome to the FR3 Language Wizard page appears.


3. Click **Next**.
4. (Optional) Insert a language card into your computer's SD card reader or adapter.
5. On the Language Pack Location page, locate the language pack that you want to use.

The **Computer** location contains the language pack installed with the HeartStart Configure software.

6. (Optional) If you are using the language card, locate the drive letter location, and then click the drive to open the language pack.

Inactive drives are indicated by gray text. The Language Packages field shows the name and description of the language pack.

7. Click **Expand**  to display the available languages on the language pack.

To verify if the language pack is compatible with your HeartStart FR3 version, click the **Information**  icon to display a brief description of the language pack.

8. Click **Next**.

The Specify Language Package Options page displays. At the top of the Language Options pane, the name of the language pack that you selected appears in the Language Pack field.

9. To select the primary language, click the **Primary language** down arrow to open the list box, and then click a language from the list.

You can click **Unchanged** to keep the current setting on the device.

10. (Optional) To set bilingual operation, click the checkbox, **Enable bilingual operation**, click the down arrow to open the list box, and click a language from the list.

11. Click **Next**.

The Save Configurations Options page appears. Inactive drives are indicated by gray text. The Drive Details pane shows details of the drive you select: the Volume name, the File system, amount of Free space, and the Total size.

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You may be prompted to overwrite any existing configuration information on the target SD card.

12. Click **Next** to save your language configuration to the target SD card.

The language configuration is saved, and the wizard displays a status page informing you whether the save was successful or not, and to what drive the configuration is saved.

13. Remove the card with your saved language configuration from your computer's SD card reader or adapter.

Loading new HeartStart FR3 primary and secondary languages

1. Remove the HeartStart FR3 battery, and then locate the card slot at the bottom of the battery compartment. If there is an SD data card in the slot, first remove it.
2. Insert the card with the saved language configuration in the card slot.
3. Reinstall the battery while holding down the right soft key (soft key #3). Keep the soft key pressed until the blank screen with the speaker icon displays.

The HeartStart FR3 display screen displays green progress bars as the languages load.


4. The new language file automatically loads. The HeartStart FR3 displays the language name and a progress bar. During language installation, the HeartStart FR3 cannot be turned off.

If the new language installation does not complete, the HeartStart FR3 reverts to the default primary language and displays a setup error screen.

5. When the language load is complete, the HeartStart FR3 displays the following screen messages: Setup Complete and Remove Language Card. If an error occurs during loading, the HeartStart FR3 displays a Setup Error message in the default language.
6. Remove the card from the HeartStart FR3, and insert the battery.
The HeartStart FR3 performs a user-initiated test (UIT).
7. To enable bilingual option on the HeartStart FR3, press the green **ON/OFF** button. The defibrillator beeps once.

The HeartStart FR3 prompts you with a voice message to select either the primary language (left soft key, or soft key #1) or the secondary language (right soft key, or soft key #3). The language selections display on the tabs at the bottom of the HeartStart FR3 LCD screen.

8. Select the secondary language by selecting the right soft key (soft key #3).

 If you do not select the secondary language within 10 seconds, the HeartStart FR3 continues to operate in the primary language.

The HeartStart FR3 announces the language selection and uses that language for all operation until the HeartStart FR3 returns to standby mode.

You must select either the primary or the secondary language each time you turn on the HeartStart FR3 for use.

Working with HeartStart FRx Defibrillators

There are two types of HeartStart FRx defibrillators: the original model that follows year 2000 guidelines, and a newer model that follows year 2005 guidelines. If you attempt to update a HeartStart FRx using the wrong configuration guideline, HeartStart Configure indicates that the configuration is incompatible with the HeartStart FRx model.

To find out the guideline that is used by your defibrillator, check the back side of the defibrillator. On a HeartStart FRx programmed for 2005 guidelines, you will see a small white label that says "2005 Guidelines." If your HeartStart FRx does not have this label, then it is programmed for 2000 guidelines.

Typical HeartStart FRx Configuration Tasks

The following table lists tasks that you typically complete with a HeartStart FRx.

Tasks	Details
Preparing your HeartStart FRx to transfer a configuration using an infrared connection	See the appropriate topic for the FRx defibrillator model: Preparing the HeartStart FRx to Transfer Configurations on page 48. Setting Up Infrared Connections and Adapters on page 53.
Retrieving a configuration	See Retrieving a HeartStart FRx Configuration on page 49.
Modifying default parameter settings	See Modifying Configurations on page 64.
Sending and receiving a configuration	See Sending a HeartStart FRx Configuration on page 52.

Setting Up Infrared Connections and Adapters

HeartStart Configure communicates with your HeartStart defibrillator over an infrared connection.

On an initial installation of your infrared adapter, if the drivers do not install automatically, then insert the CD-ROM that came with your infrared adapter and use the New Hardware Wizard on your computer to set up the adapter.

You can use most USB infrared adapters to transfer a configuration between a computer running Philips HeartStart Configure and a defibrillator that uses infrared as the transfer method.

Philips HeartStart Configure recognizes when an infrared adapter is plugged into the computer and is available. A Windows notification indicates that data can be transferred by the infrared connection. You do not have to perform any additional steps.



Use the default device drivers for the adapter. For best results, plug the hardware adapter into the USB port and use the default Windows driver.

Position the computer and the defibrillator infrared transfer windows so that they are facing each other and are at least 12 inches apart.

Preparing the HeartStart FRx to Transfer Configurations

To transfer a configuration to the HeartStart FRx, you must first place the defibrillator in Administration mode. The defibrillator must be turned on, and the pads connector must *not* be in place.

The HeartStart FRx uses infrared (IrDA) to communicate with your computer. Philips recommends that you start HeartStart Configure before placing HeartStart FRx in Administration mode.

In order to transfer a configuration, your computer IrDA window or adapter and the defibrillator IrDA window must face one another. For more information, see [Setting Up Infrared Connections and Adapters](#) on page 53.



Administration mode times out after three minutes for a first-time connection between a HeartStart FRx defibrillator and computer. Once the software connects to the defibrillator, the timeout is 30 minutes from the last connection. Each time a configuration is sent, the timeout resets.

To place a HeartStart FRx Defibrillator in Administration mode

1. Remove the pads connector.
2. If you haven't done so already, insert the battery into the defibrillator.
You will hear voice prompts to plug in pads connectors. **Disregard these prompts in this instance.** These messages end once you place the defibrillator in Administration mode. For more information, see [Understanding Voice and Screen Messages on page 113](#).
3. Press the green >ON/OFF button.
4. On the defibrillator, press and hold the blue **Information** button, and wait for three tones.
5. Release the blue Information button.
The voice message announces Administration. The defibrillator enters data transfer mode, and you can now configure your defibrillator.
6. Position the defibrillator to communicate with the computer.
The defibrillator and computer should be at least 12 inches apart.

To exit Administration mode

1. Press the green ON/OFF button.
2. After you have transferred the configuration, plug in the pads connector.
The defibrillator is now ready for use on a patient.

Retrieving a HeartStart FRx Configuration


Before changing your HeartStart FRx configuration settings, you may want to first view the current settings. You can use Infrared (IrDA) to retrieve a configuration from the HeartStart FRx and view it in HeartStart Configure.

HeartStart FRx defibrillators use an IrDA connection to communicate with your computer. For more information on setting up a IrDA connection, see [Setting Up Infrared Connections and Adapters on page 53](#).

To retrieve a HeartStart FRx configuration

1. Position the computer IrDA window or attached IrDA adapter and the HeartStart FRx defibrillator IrDA window so that they face each other. The computer running HeartStart Configure and defibrillator should be at least 12 inches apart.

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2. In Philips HeartStart Configure, click the **Configurations** navigation button to display the Configurations workspace.
3. Place the HeartStart FRx in Administration mode. For more information, see [Preparing the HeartStart FRx to Transfer Configurations on page 48](#).
4. On the toolbar, click **Retrieve configuration from defibrillator**, or on the File menu, click **Retrieve** .
The Welcome to the Configuration Transfer Wizard window appears.
5. Click **Next**.
6. On the **Select Defibrillator** page, select the row with the HeartStart FRx link in it, and then click **Next**.

A page appears while the configuration is sent from the defibrillator. This page shows the model, serial number, and interface (connection) information. The HeartStart FRx defibrillator voice message announces Transferring data to indicate that the computer is receiving information from the defibrillator.

7. Wait for the HeartStart FRx to sound three confirmation tones.
The wizard displays a page indicating whether the configuration retrieve operation is successful or not.
8. Click **Finish**.
The retrieved configuration appears in the Configurations workspace, and you can now view and modify the configuration.

Modifying a HeartStart FRx Configuration

Use the **Configurations** workspace to modify a configuration file's settings. Each field has a menu list that lists the allowed settings for that field.



Because many patient-care protocol parameters interact with each other, it is important to understand how each parameter setting affects the protocol. For more information, see the *Instructions for Administrators Guide* or consult your medical director.

HeartStart Configure provides tool tips with short descriptions of each configuration parameter. Hover the cursor over an information icon near the parameter to display the description.


Keep these two typographical conventions in mind when using the fields and menu list to select parameter settings:


- In fields, the factory default settings are in regular black text, and nondefault settings are highlighted as bold blue text. This helps make modified fields more obvious.
- In menu lists, the factory default settings are highlighted in bold text, and nondefault values are in regular black text.

HeartStart Configure also turns fields on and off based on other settings you select. If a field has gray wavy lines through it, it depends on another field and cannot be changed until that related field is modified.

To modify a HeartStart FRx configuration



You can set all fields to original factory default settings by clicking **Restore Defaults** .

1. Click the **Configurations** navigation button to display the Configurations workspace.
2. (Optional) If you did not retrieve your HeartStart FRx's current configuration, then in Configuration Tasks, click **Create for FRxA (2005 Guidelines)**, or **Create for FRx (2000 Guidelines)** to create a new configuration.
3. (Optional) Type a meaningful name and description in the **Configuration Name** and **Configuration Description** fields.
The new information replaces the selection.
4. Click the parameter that you want to change.
A menu list appears.
5. In the open menu list, click a setting.
6. (Optional) When you are satisfied with your changes, on the File menu or toolbar, click **Save**  to save the configuration for future use.

Using Click Mode

To prevent unintentional setting selections, use Click Mode. This is the default selection mode for mouse operation. Click Mode means that you must first click a field to see the menu of available settings, and then click the menu list to select a setting. The menu list disappears when you click away from the field.

If you uncheck Click mode (by clicking Tools, then **Options**), you can hover the cursor over a field to display the menu list (without needing to click), and then click an item in the list to change a setting.


Sending a HeartStart FRx Configuration

After you modify the settings in the HeartStart FRx configuration, you can use infrared (IrDA) to send this configuration to the HeartStart FRx, to change how the defibrillator behaves in an emergency.

HeartStart FRx defibrillators use IrDA to communicate with your computer. For more information, see [Setting Up Infrared Connections and Adapters on page 53](#).

You can create a new configuration to send to the HeartStart FRx. For more information, see [Creating Configurations on page 62](#).

To send a configuration to a HeartStart FRx

1. Position the computer IrDA window or attached IrDA adapter and the HeartStart FRx defibrillator infrared transport window so that they face each other. The computer running HeartStart Configure and defibrillator should be at least 12 inches apart.
2. Place the HeartStart FRx in Administration mode. For more information, see [Preparing the HeartStart FRx to Transfer Configurations on page 48](#).
3. On the toolbar, click **Send configuration to defibrillator**, or on the File menu, click **Send** .

The Welcome to the Configuration Transfer Wizard window appears.

4. Click **Next**.
5. On the **Select Defibrillator** page, click the row with the HeartStart FRx link in it, and then click **Next**.

A standby page appears when the configuration is sent to the defibrillator. This page shows the model, serial number, and interface (connection) information. The HeartStart FRx voice message announces Transferring data indicating that the defibrillator is receiving the configuration from the computer.

6. Wait for the HeartStart FRx to sound three confirmation tones.
The Transfer wizard displays a page indicating whether the configuration send operation is successful or not.
7. Click **Finish**.

Working with HeartStart HS1 Defibrillators

There are two types of HeartStart HS1 defibrillators: the original model that follows year 2000 guidelines, and a newer model that follows year 2005 guidelines. If you attempt to update a HeartStart HS1 using the configuration of the wrong guideline for that device, HeartStart Configure indicates that the configuration is incompatible with that model of HeartStart HS1.

To find out the guideline that your defibrillator uses, look on the back of the defibrillator. If a small white label reads "2005 Guidelines," your defibrillator is programmed for the 2005 guidelines. If your HeartStart HS1 does not have this label, then it is programmed for 2000 guidelines.

Typical HeartStart HS1 Configuration Tasks

The following table lists tasks that you typically complete with a HeartStart HS1.

Tasks	Details
Preparing the HeartStart HS1 to transfer a configuration using infrared connections	See the appropriate topic for the HS1 defibrillator model: Preparing the HeartStart HS1 to Transfer Configurations on page 54. Setting Up Infrared Connections and Adapters on page 53.
Retrieving a configuration	See Retrieving a HeartStart HS1 Configuration on page 55.
Modifying a configuration	See Modifying Configurations on page 64.
Sending and receiving a configuration	See Sending a HeartStart HS1 Configuration on page 58.

Setting Up Infrared Connections and Adapters

HeartStart Configure communicates with your HeartStart defibrillator over an infrared connection.

On an initial installation of your infrared adapter, if the drivers do not install automatically, then insert the CD-ROM that came with your infrared adapter and use the New Hardware Wizard on your computer to set up the adapter.

7 - Changing Defibrillator Settings

You can use most USB infrared adapters to transfer a configuration between a computer running Philips HeartStart Configure and a defibrillator that uses infrared as the transfer method.

Philips HeartStart Configure recognizes when an infrared adapter is plugged into the computer and is available. A Windows notification indicates that data can be transferred by the infrared connection. You do not have to perform any additional steps.



Use the default device drivers for the adapter. For best results, plug the hardware adapter into the USB port and use the default Windows driver.

Position the computer and the defibrillator infrared transfer windows so that they are facing each other and are at least 12 inches apart.

Preparing the HeartStart HS1 to Transfer Configurations

To transfer a configuration to the HeartStart HS1, you must first place the defibrillator in Administration mode. The defibrillator must be turned on with the pads cartridge removed.

The HeartStart HS1 uses infrared (IrDA) to communicate with your computer. Philips recommends that you start HeartStart Configure and prepare the IrDA connection before placing the HeartStart HS1 in Administration mode.

In order to transfer a configuration, your computer IrDA window or adapter and the defibrillator IrDA window must face one another. For more information, see [Setting Up Infrared Connections and Adapters on page 53](#).



The Administration mode for a HeartStart HS1 (for the initial connection to the computer running HeartStart Configure) times out after 30 seconds for 2000 guidelines, and three minutes for 2005 guidelines. Once the software connects to the defibrillator, the timeout is 30 minutes from the last connection. Each time a configuration is sent, the timeout resets.

To place a HeartStart HS1 defibrillator in Administration mode

1. Remove the pads cartridge. Locate the latch at the top, and then slide the latch to the right to release the pads cartridge.

2. If you haven't done so already, insert the battery into the defibrillator.

You will hear voice prompts to plug in the pads cartridge. **Disregard these prompts in this instance.** These messages will be silenced once you place your defibrillator in Administration mode. For more information, See [Understanding Voice and Screen Messages on page 113](#).

After the battery is inserted, the defibrillator automatically turns on.

3. If the device is not on, press the power button.
4. On the defibrillator, press and hold the blue **Information** button, and then wait for three tones.
5. Release the blue button.

A voice message announces Administration.

6. Briefly press the blue **Information** button again.

The voice message says Mode 1.

7. Position the defibrillator to communicate with the computer.

The defibrillator and computer should be at least 12 inches apart.

If you want to retrieve a HeartStart HS1 configuration, see [Retrieving a HeartStart HS1 Configuration on page 55](#).

If you want to send a HeartStart HS1 configuration, see [Sending a HeartStart HS1 Configuration on page 58](#).

To exit Administration mode

1. To exit Administration mode, press the green power button.
2. After you transfer the configuration, plug in the pads cartridge.


The defibrillator is now ready for use on a patient.

Retrieving a HeartStart HS1 Configuration

Before changing your HeartStart HS1 configuration settings, you may want to first view the current settings. You can use Infrared (IrDA) to retrieve a configuration from the HeartStart HS1 and save it in HeartStart Configure.

HeartStart HS1 defibrillators use an IrDA connection to communicate with your computer. For more information on setting up a IrDA connection, see [Setting Up Infrared Connections and Adapters on page 53](#).

To retrieve a HeartStart HS1 configuration

1. Position the computer IrDA window or attached IrDA adapter and the HeartStart HS1 defibrillator IrDA window so that they face each other. The computer running HeartStart Configure and defibrillator should be at least 12 inches apart.
2. In Philips HeartStart Configure, click **Configurations** to open the Configurations workspace.
3. Place the HeartStart HS1 in Administration mode. For more information, see [Preparing the HeartStart HS1 to Transfer Configurations on page 54](#).
4. From the File menu, click **Retrieve**, or on the toolbar, click **Retrieve configuration from defibrillator** .

The Welcome to the Configuration Transfer Wizard window appears.

5. Click **Next**.
6. On the **Select Defibrillator** page, click the row with the HeartStart HS1 link in it, and then click **Next**.

A standby page appears while the configuration is sent from the defibrillator. This page shows the model, serial number, and interface (connection) information. The HeartStart HS1 defibrillator voice message announces Sending, indicating that the computer is receiving information from the defibrillator.


7. Wait for the HeartStart HS1 to sound three confirmation tones. The Transfer Wizard displays a page indicating whether the configuration retrieve operation is successful or not.

8. Click **Finish**.

The retrieved configuration appears in the Configurations workspace, and you can now view and modify the configuration.

Modifying a HeartStart HS1 Configuration

Use the **Configurations** workspace to modify a configuration file's settings. Each field has a menu list that lists the allowed settings for that field.

 Because many patient care protocol parameters interact with each other, it is important to understand how each parameter setting affects the protocol. For more information, see the *Instructions for Administrators Guide* or consult your medical director.



HeartStart Configure provides tool tips with short descriptions of each configuration parameter. Hover the cursor over an information icon near the parameter to display the description.


Keep these two typographical conventions in mind when using the fields and menu list to select parameter settings:

- In fields, the factory default settings are in regular black text, and nondefault settings are highlighted as bold blue text. This helps make modified fields more obvious.
- In menu lists, the factory default settings are highlighted in bold text, and nondefault values are in regular black text.

HeartStart Configure also turns fields on and off based on other settings you select. A field with gray wavy lines depends on another field and cannot be changed until that related field is modified.

To modify a HeartStart HS1 configuration

 You can set all fields to original factory default settings by clicking **Restore Defaults** .

1. Click the **Configurations** navigation button to display the Configurations workspace.
2. (Optional) If you did not retrieve your HeartStart HS1's current configuration, then in Configuration Tasks, click **Create for HS1A (2005 Guidelines)**, or **Create for HS1 (2000 Guidelines)** to create a new configuration.
3. (Optional) Type a meaningful name and description in the **Configuration Name** and **Configuration Description** fields.
The new information replaces the selection.
4. Select the parameter that you want to change.
A menu list appears.
5. In the open menu list, select a setting.
6. (Optional) When you are satisfied with your changes, on the File menu or toolbar, click **Save**  to save the configuration for future use.

Using Click Mode

To prevent unintentional setting selections, use Click Mode. This is the default selection mode for mouse operation. Click Mode means that you must first click a field to see the menu of available settings, and then click the menu list to select a setting. The menu list disappears when you click away from the field.

If you uncheck Click mode (by clicking Tools, then **Options**), you can hover the cursor over a field to display the menu list (without needing to click), and then click an item in the list to change a setting.


Sending a HeartStart HS1 Configuration

After you modify the settings in the HeartStart HS1 configuration, you can use infrared (IrDA) to send the configuration to the HeartStart HS1, to change how the defibrillator behaves in an emergency.

HeartStart HS1 defibrillators use IrDA to communicate with your computer. For more information, see [Setting Up Infrared Connections and Adapters on page 53](#).

You can create a new configuration to send to the HeartStart HS1. For more information, see [Creating Configurations on page 62](#).

To send a HeartStart HS1 configuration

1. Position the computer infrared transport window or attached IrDA adapter and the HeartStart HS1 defibrillator infrared transport window so that they face each other. The computer running HeartStart Configure and the defibrillator should be at least 12 inches apart.
2. Place the HeartStart HS1 in Administration mode. For more information, see [Preparing the HeartStart HS1 to Transfer Configurations on page 54](#).
3. On the toolbar, click **Send configuration to defibrillator**, or on the File menu, click **Send** .

The Welcome to the Configuration Transfer Wizard window appears.

4. Click **Next**.
5. On the **Select Defibrillator** page, click the row with the HeartStart HS1 defibrillator link in it, and then **click Next**.

A standby page appears while the configuration is sent to the defibrillator. This page shows the model, serial number, and interface (connection) information. The HeartStart HS1 voice message announces Sending, indicating that the defibrillator is receiving the configuration from the computer.

6. Wait for the HeartStart HS1 to sound three confirmation tones.

The Transfer Wizard displays a page indicating whether the configuration send operation is successful or not.

7. Click **Finish**.

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Working with Configurations

Use the Configurations pane to perform various defibrillator configuration tasks.

- Manage a configuration. Create, open, modify, save, and delete a configuration. You can also restore default settings. For more information, see [Managing Configurations on page 61](#).
- Share a configuration. Import or export a configuration file to share with colleagues. You can also communicate with a defibrillator to transfer your configuration to it. For more information, see [Transferring Configurations on page 67](#).
- Organize configuration details. Customize the way that columns appear on the table, group entries to sort the entries by multiple criteria, and sort the information based on the column. For more information, see [Displaying Information on page 69](#).



For security purposes, configuration files created by one user are not visible to other users on the same machine.

Managing Configurations

Use the Configurations workspace to view and change defibrillator configuration settings. You can save the configuration as a file for use by another user. This helps to standardize configurations across a fleet of defibrillators.

Managing configurations involves the following tasks:

- Creating a configuration
- Opening a configuration
- Modifying a configuration
- Restoring default configuration settings
- Saving your work
- Deleting a configuration

8 - Working with Configurations

The configuration workspace appears when you click a link to open a saved configuration or when you create a new configuration. You can also open a list of previously saved configurations, and then select a configuration from the list.

In the Configurations workspace, you can view information for your saved configurations. You can also sort and group configurations based on the following information types:

- Model
- Name
- Description
- Date modified

Within a configuration, defibrillator fields are grouped as follows for all models:

- An **Overview** section of the configuration that includes the fields to identify the configuration. You can type text in these description fields.
- A **Device** section that includes settings for the basic overall behavior of the defibrillator model.
- A **Defibrillation** section that includes the parameter settings for the defibrillation shock sequence.

Some models have fields for the following:

- A **Self Test** section that contains settings for automatic self-tests.
- A **CPR, General CPR, or Protocol-specific CPR** section that contains fields for cardiopulmonary resuscitation protocols.
- A **Voice Prompts** section that contains specifications for the timing and content of voice prompts.

Creating Configurations


When you create a configuration, the workspace displays the default parameter settings. Once you modify the configuration, you can do any of the following:

- Transfer it to a defibrillator
- Save it on your computer for later use
- Export it for use by a colleague on another computer running HeartStart Configure


To create and name a new configuration

1. Click the **Configurations** navigation button.

The Configurations navigation pane displays panes and links for the supported defibrillators.

2. Use one of the following methods to create a configuration:
 - In the **Configuration Tasks** navigation pane, click the defibrillator and the guidelines link for your defibrillator model.
 - On the File menu or toolbar, click **New** . Select a defibrillator and the guidelines link for the defibrillator model.



HeartStart Configure opens a new configuration for the defibrillator type.

3. In the **Configuration Name** field, type a name for your configuration. You can change the software-generated configuration name to a different name.
4. In the **Configuration Description** field, type the description for your configuration.
5. In the **User Name** field, type your name.
6. On the File menu or toolbar, click **Save**  to save your new configuration.

Opening Previously Saved Configurations


You can open and display a previously saved configuration in the **Configurations** workspace using the **Saved Configurations** list.

To open a previously saved configuration in the Configurations workspace

1. Click the **Configurations** navigation button.
The Configurations workspace appears.
2. Choose between these two methods to open your saved configuration.
 - In the Navigation pane, click the **All Configurations** link, click a configuration, and then double-click it to open it in the workspace. Or, you can select the configuration in the All Configurations list, and then from the File menu or toolbar, click **File**, and then click **Open** .
 - To open a configuration for a particular defibrillator model, click the defibrillator model link in the **Saved Configurations** pane (for example, **FRx Configurations**), and then open the configuration either by double-clicking it or (from the File menu or toolbar) clicking **File**, and then clicking **Open** .

Modifying Configurations

You can use the **Configurations** workspace to modify a configuration file's settings. Each field has a menu list that lists the allowed settings for that field.

 Because many patient-care protocol parameters interact with each other, it is important to understand how each parameter setting affects the protocol. For more information, see the **Instructions for Administrators Guide** or consult your medical director.

HeartStart Configure provides tool tips with short descriptions of each configuration parameter. Hover the cursor over an information icon near the parameter to display the description.


Keep these two typographical conventions in mind when using the fields and menu list to select parameter settings:


- In fields, the factory default settings are in regular black text, and nondefault settings are highlighted as bold blue text. This helps make modified fields more obvious.
- In menu lists, the factory default settings are highlighted in bold text, and nondefault values are in regular black text.

HeartStart Configure also turns fields on and off based on other settings you select. If a field has gray wavy lines through it, it depends on another field and cannot be changed until that related field is modified.

To modify a configuration



You can set all fields to original factory default settings by clicking **Restore Defaults** .

1. Click the **Configurations** navigation button to display the Configurations workspace.
2. (Optional) If you do not have a configuration to modify, then in Configuration Tasks, click the defibrillator and guideline link to create a new configuration.
3. (Optional) Type a meaningful name and description in the **Configuration Name** and **Configuration Description** fields.
The new information replaces the selection.
4. Select the parameter that you want to change.
A menu list appears.
5. In the open menu list, click a setting.
6. (Optional) When you are satisfied with your changes, on the File menu or toolbar, click **Save** .

Using Click Mode

To prevent unintentional setting selections, use Click Mode. This is the default selection mode for mouse operation. Click Mode means that you must first click a field to see the menu of available settings, and then click the menu list to select a setting. The menu list disappears when you click away from the field.

If you uncheck Click mode (by clicking Tools, then **Options**), you can hover the cursor over a field to display the menu list (without needing to click), and then click an item in the list to change a setting.

Restoring Default Configuration Settings


Use **Restore Defaults** when you want to reset the configuration to the original factory settings.

The following are reasons to restore default settings:

8 - Working with Configurations


- You have modified settings in an open configuration, you don't like what you have done, and now you want to restore the configuration to the default settings.
- You want to retrieve a defibrillator configuration, restore the default settings, and then send the factory settings to the defibrillator.

To restore default configuration settings

1. Display the configuration in the **Configurations** workspace.
2. From the **Edit** menu or toolbar, click **Restore Defaults** .

Saving Your Work

To save your configuration

1. Display your configuration in the **Configurations** workspace.
2. From the File menu or toolbar, click **Save**  to save your configuration.
HeartStart Configure saves your configuration changes to an internal file.


Deleting Configurations

You can delete a configuration only from the **Configurations** workspace. If you want to export a configuration before deleting it, see [Exporting a Configuration File on page 69](#).



Once you delete a configuration, you cannot restore it or undo your delete. All of the configuration information will be lost.

To delete a configuration


1. Click the **Configurations** navigation button to display the Configurations navigation pane and workspace.
2. Click **All Configurations** to display a list of configurations in the Configurations workspace.
3. Click the configuration that you want to delete.
4. On the File menu or toolbar, click **Delete** .
5. At the prompt, click **Yes**.

Transferring Configurations

Use the Transfer Wizard to update your defibrillator configuration.

The Transfer Wizard consists of the following wizard pages:

- A **Welcome** page where you can learn about the wizard. You can choose to bypass this page in the future.
- A **Select Defibrillator** Page that displays the defibrillator's connection state, serial number, connection, and model. HeartStart Configure scans to locate the defibrillator. You can select the defibrillator that you want to configure, and then complete your tasks using the wizard.

When you click **Configurations**, and then click **Retrieve** , the wizard displays the Welcome page. Click **Next** to open the Select Defibrillator Page.

The following table describes the information on the Select Defibrillator page.

Data Column	Details
Connection State	Whether or not the defibrillator is ready. Possible values are: Ready: the defibrillator is compatible with the information type being transferred. Offline: the defibrillator was found in a previous scan but not included in the most recent defibrillator scan. Incompatible: the defibrillator is ready but cannot receive the information type being transferred.
Serial Number	The defibrillator's serial number found in the scan
Connection	The type of defibrillator transfer method used
Model	The defibrillator model

- A **Processing** page indicates that the computer is connecting to the defibrillator.
- A **Status** page indicates either success or failure for the operation.

To use the Transfer Wizard to send a configuration, see the following topics:

HeartStart FR3 defibrillators

- To send a HeartStart FR3 defibrillator configuration, see [Sending a HeartStart FR3 Configuration on page 40](#).

HeartStart FRx defibrillators

- To send a HeartStart FRx configuration, see [Sending a HeartStart FRx Configuration on page 52](#).

HeartStart HS1 defibrillators

- To send a HeartStart HS1 configuration, see [Sending a HeartStart HS1 Configuration on page 58](#).


Importing a Configuration File

You can import a configuration file to the **Configurations** workspace that was created on a colleague's computer and that is presently in a folder accessible from your computer. You might want to do this for these reasons:

- You want to import the configuration that your colleague or medical director created to configure your HeartStart defibrillators.
- You want to import a configuration that was exported as a master configuration.

After you import a file, HeartStart Configure displays the configuration file in the Configurations workspace. You can then view and modify the configuration.

To import a file

1. Click the **Configurations** navigation button.
2. On the File menu or toolbar, click **File**, and then click **Import** .
HeartStart Configure displays the Import File window. The Import File window displays the last folder that you used to import a file. If the file is in a different location, select the appropriate folder in the Import File window to navigate to the file location. The default import folder is located in the My Documents folder.
3. Click the **File of Type** down arrow to select either an XML file or DAT file.
4. Select the configuration file, and then click **Open**.
HeartStart Configure displays the imported configuration file.


Exporting a Configuration File

You can export a configuration file that you created on the **Configurations** workspace for use by a colleague on another computer that runs HeartStart Configure.

Here are a few reasons to export a configuration file to another computer:

- You want to give a configuration file you created to your colleagues so that they can standardize their defibrillator settings.
- You want to export your saved configurations for safekeeping.

To export a file

1. Click the **Configurations** button to open the Configurations workspace.
2. In the navigation pane on the Saved Configurations pane, click **All Configurations**.
3. Click the configuration to export.
4. From the File menu or toolbar, click **Export** .
The Export File As window shows the last folder you used to export a file.
To use a different location, navigate to the directory of your choice.
5. (Optional) Rename the file, and then click **Save**.
The configuration file is exported to the selected folder.

Displaying Information

On both the **Configurations** and **Administration** workspaces, you can categorize, sort, and group the information in tables by column headers (for example, **Description**). This helps you manage large amounts of information, and lets you easily navigate to a single item in an information group.

Working with Columns

You can customize the columns that appear on the table.

To change or size a column width

- Click and hold the column border, and then drag the border to the size you prefer.

To reset a column to its previous width

- Click the column border, and then double-click the border.

To hide or display a column

1. Right-click the column header name to display a shortcut menu.
A popup menu appears.
2. Click a check box for each column that you want to hide or display on the table.
Column headers with a check mark display on the table.

To move a column

- Click and hold the column header, and then drag it left or right to a new location.

Sorting Information in a Column

You can sort information in a column by clicking the column header. HeartStart Configure displays a triangular symbol (arrow) in the column header to indicate the sort order.

To sort column entries

- Click the column header to sort the list of information in ascending (*1* to *9*, or *a* to *z*) or descending (*9* to *1*, or *z* to *a*) order.

Grouping Information in Columns

In the gray area above information such as configurations or System Log messages, you can set up groups using table column headers. Setting up groups has the effect of sorting the information into major and minor sorts. For example, you can group information in the System Log using the column, *Type*. This creates an additional sort of the table according to the values in the *Type* column: Information and Error. If you want to create further minor sorts, you can then drag more column headings into the gray area to create subgroups.

You can also hide or display (collapse or expand) the grouped information.

To group information

1. Click a column header and drag it to the grouping area labeled **Drag a header here to group by that column**.





The column name moves to the grouping area, and the table displays the groups you create.

2. Repeat step 1 as necessary to create more groups.
HeartStart Configure creates the next group level.



Click the column header to sort the order in which the grouped information appears.

To hide or display information groups

1. Locate the group of rows to collapse.
2. Click the **Collapse**  button to the left of the group to collapse it, or click the **Expand**  button to the left of the group to expand it.
 - If you want to hide multiple information groups, on the View menu or toolbar, click **Collapse All** .
 - If you want to display multiple information groups, on the View menu or toolbar, click **Expand all** .

To ungroup information

- Click a column header (for example, *Type*) in the grouping area and drag it below the table header.

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Working with the System Log

The System Log displays HeartStart Configure activity. In the navigation pane, click **Administration** to access the System Log.

Two information types are available in the System Log: *Information* and *Error* messages.

- An **Information** message summarizes end-user actions. For example, a message stating "Opened the application" is created when you open Philips HeartStart Configure.
- An **Error** message specifies what an error is or why it occurred. For example, if there is a failure to import a file, an error message states "Failed to import file" and includes the file path in parentheses. For a table of system messages, see [System Log Messages on page 115](#).

You can email the HeartStart Configure System Log information to Philips Customer Support when you are asked to do so. On the Help menu, click **Email Customer Support**.

Opening the System Log

The System Log is available from the Administration navigation pane. On the navigation pane, click **Administration** to open the System Log. HeartStart Configure displays the System Log workspace.

Viewing the System Log

The System Log displays the status of all Philips HeartStart Configure activity. It also contains all messages that are generated by HeartStart Configure about actions and events in the software.

9 - Working with the System Log

You can view the following System Log columns in the System Log workspace. An asterisk (*) represents default columns.

- Type*
- Date and Time*
- Action*
- Description*
- User Name* (This is the name of the user who is currently logged in, not the name that appears in the Name field in the **Configurations** workspace.)
- Computer
- Serial Number
- Configuration Name
- Model
- Transfer Method

To view additional columns, right-click the column header, and click the column that you want to appear.



You can sort, group, and customize columns in the System Log just as you can in the Configurations and Administration workspaces. For more information, see [Displaying Information on page 69](#).

For a list of the types of System Log messages, see [System Log Messages on page 115](#).

For each action in the System Log, the software includes the following information:

- The type of activity; for example, Information or Error
- The action that occurred
- A description of the action
- The date and time when the action occurred

Understanding Confirmation Messages

A confirmation message does one of two things:

- Informs you that an action might result in a change to a configuration
- Warns you that an action may cause a permanent change.

By default, confirmation messages are enabled.

To disable confirmation messages

- Click the **Do not show this message again** checkbox when a confirmation message appears.

To re-enable confirmation messages

- On the Tools menu, click **Options**, and then click **Restore Confirmations**.

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Contacting Customer Support

Philips strives to provide you with excellent customer service and technical support. Software updates are available from the Help menu. From the Help menu, click **Check for Updates**.

You can contact Customer Support through email, the Internet, telephone, and mailing address, or via the Getting Started page.

- Send email to hsconfigure.support@philips.com
- Visit the Philips Healthcare product support Web site at:

http://www.healthcare.philips.com/main/products/resuscitation/products/data_management/index.wpd



To view the Philips Healthcare Product support Web site better in the online help pane, double-click the top of the help window to expand the pane.

For telephone assistance outside the United States, please call your sales representative or local sales office. Use the technical support telephone numbers for data management products on the product support Web site.

For telephone support in English only, call the following numbers between 8:00 AM and 4:00 PM, Pacific Time:

- 1 (800) 263-3342, inside the United States
- +1 (206) 664-7745, outside the United States

A - Contacting Customer Support

Region	Address	Telephone Number
United States	Philips Healthcare 3000 Minuteman Road Andover, Massachusetts, 01810-1099	(800) 263-3342
Canada	Philips Medical Systems, a division of Philips Electronics Ltd. 281 Hillmount Road Markham, Ontario, L6C 2S3 Canada	(800) 291-6743
Europe, Middle East, and Africa	Philips Medizinsysteme Boeblingen GmbH, Cardiac and Monitoring Systems Hewlett-Packard Strasse 2 71034 Boeblingen, Germany	(+49) 7031 463-2254
Latin America	Philips Medical Systems Rua Verbo Divino - 1400 7o Andar 04719-002 -Sao Paulo, Brazil	(+55) 0800 701 7789
Asia Pacific	Philips Electronics Hong Kong Ltd. 6/F, Core Building 1 1 Science Park East Avenue Hong Kong Science Park Shatin. New Territories, Hong Kong	(+852) 2821 5888

Getting Help

Customer Support can assist you in resolving issues with HeartStart Configure software.

You can also email the HeartStart Configure System Log information to Customer Support when you are asked to do so. On the Help menu, click **Email Customer Support**.

Customer Support technicians provide help for the following:

- Explaining the proper use of application features and answering your questions about how the application works
- Explaining the proper installation and maintenance of Philips HeartStart Configure
- Assisting you in selecting and configuring card readers
- Assisting you in setting up an IrDA connection or in placing a defibrillator in Administration mode

Customer support technicians do not provide help for the following:

- Interpreting ECG or medical data. Please call your medical director or clinical specialist.
- Repairing hardware. Support technicians can help you determine if you have a hardware problem, but they cannot help you fix problems that are not related to Philips HeartStart Configure software.
- Troubleshooting defibrillators. Please call Philips Customer Support and ask for defibrillator support.
- Troubleshooting non-Philips products.

Helping Us Help You

You can help our technicians give you better support by doing the following:

- Calling from a phone near your computer
- Having the application started and running
- Having the following information available. This information is available by clicking the **Help** menu, and then clicking **About**:
 - Product information, including the model number
 - Serial number
 - Software revision or version


A - Contacting Customer Support

- Knowing the version of Windows that you are using
- Knowing the software's installed options (if applicable)
- Having a written copy of the error message text
- Recording details about the activity and task you were doing when the error occurred

Configuration Parameter Field Descriptions

Use the configuration parameter field description tables when you change configuration fields on your HeartStart defibrillator. These tables define the parameter settings, and show both the default and nondefault settings.

It is the responsibility of the medical supervisor to interpret a parameter and select the correct setting based on your institution's requirements.

You should make changes only under the direction of a medical supervisor.  Changing settings changes the way the defibrillator operates in an emergency. Since many patient-care protocol parameters interact with each other, it is important to understand how each parameter affects the protocol.

The American Heart Association (AHA), European Resuscitation Council, and International Liaison Committee on Resuscitation (ILCOR) periodically publish guidelines that advise on best practices for resuscitation. When the guidelines are published, Philips updates the programming of its defibrillators accordingly.

Hence, for a given defibrillator model, users may have defibrillators programmed to observe different guidelines. When configuring your device, you must select the device model and the correct guidelines. Use the guidelines that the defibrillator is actually programmed to observe, not the guidelines that you think you would like it to observe.

FR3 Configuration Parameters

The HeartStart FR3 is shipped with a factory-default setup optimized for compliance with Guidelines 2010. This is designed to meet the needs of most users. You can also configure the FR3 extensively.

This topic describes the HeartStart FR3 configuration parameters. For more information on how to implement FR3 parameters for specific uses, see the *HeartStart FR3 Defibrillator Instructions for Administrators* guide.

When HeartStart Configure retrieves a configuration, the firmware version for the defibrillator appears in the title bar for the workspace.



Default field settings in the menus appear in **bold** black typeface. Nondefault settings in the workspace appear in blue typeface.

Overview group

Configuration name

Displays the name of the configuration.

You can change the assigned name.

Configuration description

Displays the description of the configuration.

You can change the description by typing details in the box.

Date modified

Displays the date and time at which the configuration was created or last updated.

User name

Displays the user name of the user who modified the configuration.

You can type a unique user name.

Device group

The device operation parameter settings determine the basic behavior of HeartStart FR3, irrespective of individual protocols.

Volume

Sets the FR3 speaker volume.

The allowable settings are:

- Loud** (the default setting)
- Medium
- Soft

ECG display

(FR3 ECG model 861389 only)

Enables (ON) or disables (OFF) display of the patient's ECG on the FR3 screen.

The allowable settings are:

- On** (the default setting)
- Off

Record audio

Enables (ON) or disables (OFF) audio recording on the data card during use.

The allowable settings are:

- On
- Off** (the default setting)

Wireless PIN

Sets the *Bluetooth* personal identification number (PIN). Required only for use with the optional *Bluetooth* wireless transceiver module [REF: 989803150081].

 You can change the **Bluetooth** PIN only through HeartStart Configure.

For security reasons, the PIN is not displayed on the FR3 screen.

In the View Setup feature in Administration mode, the PIN is shown as "Default" if it has never been changed, or "*****" if it has been changed using HeartStart Configure.

The allowable settings are:

- Enter a 4-digit number.
- 2071** (the default setting)

Defibrillation

These parameters govern the number of and time between defibrillation shocks in a shock series.

Shock series

(Number of shocks per stack)

FR3 Configuration Parameters

Sets the number of shocks in a series that must be delivered before the FR3 automatically activates a Basic CPR Interval.

A new shock series begins when a shock is delivered in any of the following circumstances:

- After the FR3 is turned on
- After a completion of any CPR protocol
- When the **Shock series** setting is greater than 1 and if the time since the previous shock exceeds the shock series interval setting (when the shock series setting is greater than 1)

The allowable settings are:

1 (the default setting)

2

3

4

Shock Series Interval

Sets the time interval used to determine if a delivered shock should be counted as part of the current shock series. This parameter applies only when the **Shock series** setting is greater than 1. The time interval is in minutes.

If you click Infinite, then the shock protocol will not time out until the configured number of shocks per stack (shock series) has been delivered.

The allowable settings are:

1 (the default setting)

2

Infinite

Advanced mode use

Enables (ANALYZE and CHARGE) or disables (OFF) advanced mode.

ANALYZE - The FR3 permits user-initiated rhythm analysis when the FR3 entered the advanced mode.

CHARGE - The FR3 permits user-initiated rhythm analysis, and charge and disarm when the advanced mode is entered.

For more information, see the Advanced Mode appendix in the *FR3 Defibrillator Instructions for Administrators* guide.

The allowable settings are:

Analyze

Charge (available only for the FR3 ECG model)

Off (the default setting)

Advanced use prompt repeat rate

Sets the repeat rate for patient care prompts provided by HeartStart FR3 when **Advanced mode use** is configured to ANALYZE or CHARGE. The repeat rate is in minutes.

For more information, see the Advanced Mode appendix in the *FR3 Defibrillator Instructions for Administrators* guide.

The allowable settings are:

.5 (the default setting)

1.0

2.0

Self-test group

The periodic self-tests (PST) conducted by HeartStart FR3 can be configured to test for certain preconnected accessories. Although the default setting is OFF, HeartStart FR3 automatically tests any accessory connected to it during periodic self-tests. However, if self-test for an accessory is configured to ON and HeartStart FR3 does not detect the accessory, it provides alert chirps.

Test pads

Enables (ON) or disables (OFF) testing for the presence of preconnected pads during each self-test.

The allowable settings are:

On

Off (the default setting)

Test data card

Enables (ON) or disables (OFF) testing for the presence of an installed data card during each self-test.

The allowable settings are:

On

Off (the default setting)

General CPR group

General CPR parameters apply to all CPR protocols. The FR3 provides three kinds of separately configurable CPR protocols. The kind of CPR protocol applied depends on its context in the patient care cycle.

Basic CPR – Upon completion of a shock series (FR3 default shock series is one shock), HeartStart FR3 provides a CPR protocol.

CPR First – HeartStart FR3 provides a CPR protocol before defibrillation therapy, based on the selected SMART CPR algorithm or the User setting.

NSA CPR – After a no-shock-advised (NSA) decision, HeartStart FR3 provides an attend-to-patient period with a CPR option button or, if NSA CPR is configured ON, an NSA CPR protocol.


Each of these three protocol types can also be configured separately for adult and infant/child applications, for a total of six distinct CPR protocols.

Unless otherwise noted, these parameters pertain to all adult and infant/child CPR protocols (Basic CPR, CPR First, and NSA CPR) initiated by the FR3. If you change a general CPR parameter setting, it will be applied to every CPR protocol.

 CPR protocols are time-based, using the selected CPR duration setting.

Metronome

Enables (ON) and disables (OFF) audio beats for CPR compressions.

 Metronome audio beats, if enabled, will mask ambient sounds during CPR in the Record Audio data.


The allowable settings are:

On

Off (This is the default setting.)

CPR First

Sets whether the FR3 provides an interval for CPR prior to defibrillation, in the first rhythm analysis in a device use.

 The **Analyze option button** is always available in any CPR First protocol. Press the designated option button to initiate FR3 analysis of heart rhythm.

The allowable settings are:

Off (This is the default setting.) - The FR3 never provides an initial CPR interval before rhythm analysis.

SMART CPR auto1 - The FR3 uses a more conservative rhythm analysis system to determine if the presenting shockable heart rhythm is characteristic of long downtime (and therefore the patient should receive CPR first). "Conservative" means that it is less likely to recommend CPR first.

SMART CPR auto2 - The FR3 uses a more aggressive rhythm analysis system to determine if the presenting shockable heart rhythm is characteristic of long downtime (and therefore the patient should receive CPR first). "Aggressive" means that it is more likely to recommend CPR first.


User (User-initiated CPR Protocol) - The FR3 provides a protocol in which responders can initiate the configured CPR protocol at any time by pressing the CPR option button.

No Shock Advised (NSA) action

Sets FR3 behavior during the attend-to-patient period that follows any NSA (no-shock-advised) decision. During this period, the responder can perform CPR or otherwise attend to the patient, as needed.

Important: When configured to NSA CPR, the FR3 enables CPR Coaching for use during the attend-to-patient period.

For more information on how to implement FR3 **NSA action** parameters, see the NSA Action appendix in the *FR3 Defibrillator Instructions for Administrators* guide.

 When configured to NSA CPR, the FR3 enables configuration of **NSA CPR Coaching** for use during the attend-to-patient period. NSA CPR Coaching settings are ALWAYS and USER.

The allowable settings are:

NSA CPR (the default setting)

NSA Monitor

NSA CPR coaching

Sets the type of coaching during the attend-to-patient period when **NSA action** is set to NSA CPR.

When configured to **NSA CPR**, this allows selection of NSA CPR Coaching following an NSA decision, either at user discretion (USER) or ALWAYS.

The allowable settings are:

Always (the default setting)

User

NSA Monitor prompt repeat rate

Sets the repeat rate for patient care prompts provided by the FR3 during monitoring, only when **NSA action** is set to MONITOR. The repeat rate is in minutes.

For more information, see the Configuration chapter and NSA Action appendix in the *FR3 Defibrillator Instructions for Administrators* guide.

The allowable settings are:

1.0 (the default setting)

2.0

3.0

Infinite - Select if you do not want to provide repeat prompting during background monitoring.

CPR option button

Enables (ON) or disables (OFF) the ability to initiate a Basic CPR protocol by pressing the designated option button, when active during rhythm analysis or a shock related sequence, on the front panel of the FR3.

The allowable settings are:

On

Off (the default setting)

Analyze option button

Enables (ON) or disables (OFF) ability to interrupt a CPR protocol, NSA monitoring, or attend-to-patient period and resume rhythm analysis, by pressing the designated option button on the front panel of the FR3.

The allowable settings are:

On

Off (the default setting)

Protocol-specific CPR group

Specific CPR parameters apply to each CPR protocol individually. In other words, each of these CPR Duration parameters can be configured separately for adult and infant/child CPR protocols.

Adult CPR First duration

Sets the length of the CPR protocol for **Adult CPR First**. The length of the protocol is in minutes.

The allowable settings are:

- 1.0
- 1.5
- 2.0** (the default setting)
- 2.5
- 3.0

Adult Basic CPR duration

Sets the length of the CPR protocol for **Adult Basic CPR**. The length of the protocol is in minutes.

The allowable settings are:

- 1.0
- 1.5
- 2.0** (the default setting)
- 2.5
- 3.0

Adult NSA CPR duration

Sets the attend-to-patient period for the **Adult NSA CPR**. The length of the protocol is in minutes.

The allowable settings are:

- 1.0
- 1.5
- 2.0** (the default setting)
- 2.5
- 3.0

Infant/child CPR First duration

Sets the length of the CPR protocol for **Infant/child CPR First**. The length of the protocol is in minutes.

The allowable settings are:

- 1.0
- 1.5

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2.0 (the default setting)

2.5

3.0

Infant/child Basic CPR duration

Sets the length of the CPR protocol for **Infant/child Basic CPR** . The length of the protocol is in minutes.

The allowable settings are:

1.0

1.5

2.0 (the default setting)

2.5

3.0

Infant/child NSA CPR duration

Sets the length of the CPR protocol for **Infant/child NSA CPR**. The length of the protocol is in minutes.

The allowable settings are:

1.0

1.5

2.0 (the default setting)

2.5

3.0

FRx 2005 Configuration Parameters

This topic describes the configuration parameters for a HeartStart FRx programmed to observe 2005 guidelines. For more information on how to implement FRx parameters for specific uses, see the *HeartStart FRx Owner's Manual*.

When HeartStart Configure retrieves a configuration, the serial number for the defibrillator appears in the title bar for the workspace.



Default field settings in the menus appear in **bold** black typeface. Nondefault settings in the workspace appear in blue typeface.

Overview group

In the Overview, you can type a configuration identifier into text boxes for the configuration. This view also indicates the last date and time that the configuration was modified.

Configuration name

Displays the name of the configuration.

You can type a name to change the configuration name.

Configuration description

Displays the description of the configuration.

You can change the description by entering details into the text box.

Date modified

Displays the date and time that the configuration was created or last updated.

User Name

Displays the user name of the user who modified the configuration.

You can type a unique user name.

Device group

The device operation parameter settings determine the basic behavior of the HeartStart FRx, irrespective of individual protocols.

Volume

Sets the volume of the defibrillator speaker. 1 is lowest; 8 is highest. The defibrillator uses the speaker for voice instructions and the charge-done tone. The allowable settings are:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8** (the default setting)

Send ECG

Enables (ON) or disables (OFF) the ability to send ECG information (in real time) from the defibrillator's infrared (IrDA) window.

Also known as "ECG out."

The allowable settings are:

- On** (the default setting)
- Off

AutoSend periodic self-test (PST)

Enables (ON) or disables (OFF) the ability of the defibrillator to automatically send periodic self-tests from the device's infrared (IrDA) window.

The allowable settings are:

- On** (the default setting)
- Off

Defibrillation group

These parameters govern the number of and time between defibrillation shocks in a shock series.

Shock Series

(Number of shocks per stack)

Sets the number of shocks in a series that must be delivered to start the automatic protocol pause for patient assessment and CPR.

During the protocol pause, the defibrillator does not perform rhythm analysis.

The protocol pause timer setting determines the length of the protocol pause after the defibrillator completes a shock series.

The allowable settings are:

- 1 (the default setting)
- 2
- 3
- 4

Shock Series Interval

Sets the time interval used to determine if a delivered shock should be counted as part of the current shock series. This parameter applies only when the **Shock series** setting is greater than 1. The time interval is in minutes.

The allowable settings are:

- 1 (the default setting)
- 2
- Infinite

CPR group

The following parameters determine how the HeartStart FRx orchestrates CPR protocol.

No Shock Advised pause type

Sets the pause type following a No Shock Advised decision.

The allowable settings are:

Standard - The defibrillator does not perform rhythm analysis during the pause. The pause time is determined by the selected protocol pause timer and **No Shock Advised pause timer** settings.

SMART (the default setting) - The defibrillator conducts background monitoring during the pause.

If the defibrillator detects a potentially shockable rhythm, the defibrillator ends the SMART pause and resumes rhythm analysis (unless CPR or CPR coaching is being performed).

If CPR or CPR coaching is being performed, the SMART NSA pause is converted to a standard NSA.

No Shock Advised pause timer

Sets the length of the No Shock Advised (NSA) pause interval. The NSA pause interval starts after an NSA decision. The pause interval is in minutes.

If the defibrillator delivers a shock within the shock series interval, the defibrillator overrides this setting and defines the length of the pause by the protocol pause timer setting.

The allowable settings are:

- 0.5
- 1.0
- 1.5
- 2.0 (the default setting)**
- 2.5
- 3.0

Protocol pause timer

Sets the length of the CPR pause interval. The two-minute CPR pause interval automatically starts after the defibrillator completes voice instruction and a shock series.

After the protocol pause, the defibrillator returns to automatic rhythm analysis.

The allowable settings are:

- 0.5
- 1.0
- 1.5
- 2.0 (the default setting)**
- 2.5
- 3.0

CPR compression ratio

Sets the rate for CPR compression signals provided by the defibrillator. The compression ratio is the number of compressions and breaths administered during a minute.

Pauses begin and end with compressions.

The allowable settings are:

Adult = 30:2, Pediatric = 30:2 (the default setting)

Adult = 30:2, Pediatric = 15:2

Adult = 15:2, Pediatric = 15:2

CPR adult ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for adults while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with adult pads.
- Choose **No ventilation** if coaching will be compressions-only when an adult pads connector is installed.

The allowable settings are:

With ventilation (the default setting)

No ventilation

CPR infant/child ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for children and infants while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with an Infant/Child Key inserted.
- Choose **No ventilation** if coaching will be compressions-only when an Infant/Child Key is inserted.

The allowable settings are:

With ventilation (the default setting)

No ventilation

Voice Prompts group

Determines the timing and content of key protocol voice instructions.

Call EMS voice instruction

Sets the point during the response (at the start of the first patient care pause) when the defibrillator plays the voice instruction to call emergency medical services.

The allowable settings are:

At power on

At power on and at the start of the first pause interval

At the start of the first pause interval (the default setting)

No reminder

CPR prompt

Sets the CPR reminder voice prompts.

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The allowable settings are:

CPR 1: Begin CPR.

CPR 2: It is safe to touch the patient. Begin CPR.

CPR 3: Begin CPR. For help with CPR, press the flashing blue button.

CPR 4 (the default setting): It is safe to touch the patient. Begin CPR. For help with CPR, press the flashing blue button.

FRx 2000 Configuration Parameters

This topic describes the configuration parameters for a HeartStart FRx defibrillator programmed to observe the 2000 guidelines. For more information on how to set your HeartStart FRx parameters for specific uses, see the *HeartStart FRx Defibrillator Owner's Manual*, Edition 5.

When HeartStart Configure retrieves a configuration, the serial number for the defibrillator appears in the title bar for the workspace.



Default field settings in the menus appear in **bold** black typeface. Nondefault settings in the workspace appear in blue typeface.

Overview group

In the Overview, you can type your own configuration identifier information into boxes for the configuration. This display also indicates the last date and time that the configuration was modified.

Configuration name

The name of the configuration.

You can change the assigned name.

Configuration description

The description of the configuration.

You can change the description by typing details into the box.

Date modified

The date and time that the configuration was created or last updated.

User Name

The user name of the user who modified the configuration.

You can type a unique user name.

Device group

The device operation parameter settings determine the basic behavior of the HeartStart FRx, irrespective of individual protocols.

Volume

Sets the volume of the defibrillator speaker. 1 is lowest; 8 is highest.

The defibrillator uses the speaker for voice instructions and the charge-done tone.

The allowable settings are:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8** (the default setting)

Send ECG

Enables (ON) or disables (OFF) the ability to send ECG information (in real time) from the defibrillator infrared (IrDA) window.

Also known as "ECG out."

The allowable settings are:

- On** (the default setting)
- Off

AutoSend periodic self-test (PST)

Enables (ON) or disables (OFF) the ability of the defibrillator to automatically send periodic self-tests from the defibrillator infrared (IrDA) window.

The allowable settings are:

- On** (the default setting)
- Off

Defibrillation group

These parameters govern the number of and time between defibrillation shocks in a shock series.

Shock Series

(Number of shocks per stack)

Sets the number of shocks in a series that must be delivered to start the automatic protocol pause for patient assessment and CPR.

During the protocol pause, the defibrillator does not perform rhythm analysis.

The protocol pause timer setting determines the length of the protocol pause after the defibrillator completes a shock series.

The allowable settings are:

- 1
- 2
- 3** (the default setting)
- 4

Shock Series Interval

Sets the time interval used to determine if a delivered shock should be counted as part of the current shock series. This parameter applies only when the shock series setting is greater than 1. The time interval is in minutes.

The allowable settings are:

- 1** (the default setting)
- 2
- Infinite

CPR group

The following parameters determine how HeartStart FRx orchestrates the CPR protocol.

No Shock Advised pause type

Sets the type of pause following a No Shock Advised decision.

The allowable settings are:

Standard - The defibrillator does not perform rhythm analysis during the pause. The pause time is determined by the selected protocol pause timer and **No Shock Advised pause timer** settings.

SMART (the default setting): The defibrillator conducts background monitoring during the pause. If the defibrillator detects a potentially shockable rhythm, the defibrillator ends the SMART pause and resumes rhythm analysis (unless CPR or CPR coaching is being performed).

If CPR or CPR coaching is being performed, the SMART NSA pause is converted to a standard NSA pause.

No Shock Advised pause timer

Sets the length of the No Shock Advised (NSA) pause interval. The NSA pause interval starts after an NSA decision. The pause interval is in minutes.

If the defibrillator delivers a shock within the shock series interval, the defibrillator overrides this setting and defines the length of the pause by the protocol pause timer setting.

The allowable settings are:

- 0.5
- 1.0** (the default setting)
- 1.5
- 2.0
- 2.5
- 3.0

Protocol pause timer

Sets the length of the CPR pause interval. The CPR pause interval starts after the defibrillator completes voice instruction and a shock series. After the protocol pause, the defibrillator returns to automatic rhythm analysis. The pause interval is in minutes.

The allowable settings are:

- 0.5
- 1.0** (the default setting)
- 1.5
- 2.0
- 2.5
- 3.0

CPR prompt rate

Sets the rate for CPR compression signals provided by the defibrillator. The compression rate is the number of compressions administered during a minute.

The allowable settings are:

- 80
- 100** (the default setting)

CPR adult ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for adults while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with adult pads.
- Choose **No ventilation** if coaching will be compressions-only when an adult pads connector is installed.

The allowable settings are:

With ventilation (the default setting)

No ventilation

CPR infant/child ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for children and infants while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with an Infant/Child Key inserted.
- Choose **No ventilation** if coaching will be compressions-only when an Infant/Child Key is inserted.

The allowable settings are:

With ventilation (the default setting)

No ventilation

Voice Prompts group

Determines the timing and content of key protocol voice instructions.

Call EMS voice instruction

Sets the point when the defibrillator plays the voice instruction to call emergency medical services.

The allowable settings are:

At power on

At power on and at the start of the first pause interval

At the start of the first pause interval (the default setting)

No reminder

CPR prompt

Sets the CPR reminder voice prompts.

The allowable settings are:

CPR 1: If needed, begin CPR.

CPR 2: Check airway, breathing, circulation. If needed, begin CPR.

CPR 3: If needed, begin CPR. Press the blue button for CPR coaching.

CPR 4 (the default setting): Check airway, breathing, circulation. If needed, begin CPR. Press the blue button for CPR coaching.

HS1 2005 Configuration Parameters

This topic describes the configuration parameters for the HeartStart HS1 that is programmed to observe 2005 guidelines. For detailed discussions on how to implement HS1 parameters for specific uses, see the *HeartStart HS1 Defibrillator Owner's Manual*.

When HeartStart Configure retrieves a configuration, the defibrillator serial number appears in the title bar for the workspace.



Default field settings in the menus appear in **bold** black typeface. Nondefault settings in the workspace appear in blue typeface.

Overview group

In the Overview, you can type a configuration identifier into boxes for the configuration. This area also indicates the last date and time that the configuration was modified.

Configuration name

Displays the name of the configuration.

You can change the assigned name.

Configuration description

Displays the description of the configuration.

You can change the description by typing details in the box.

Date modified

Displays the date and time when the configuration was created or last updated.

User Name

Displays the user name of the user who modified the configuration.

You can type a unique user name.

Device group

The device operation parameter settings determine the basic behavior of the HeartStart HS1, irrespective of individual protocols.

Volume

Sets the volume of the defibrillator speaker. 1 is lowest; 8 is highest.

The defibrillator uses the speaker for voice instructions and the charge-done tone.

The allowable settings are:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8** (the default setting)

Send ECG

Enables (ON) or disables (OFF) the ability to send ECG information (in real time) from the defibrillator infrared (IrDA) window.

Also known as "ECG out."

The allowable settings are:

- On** (the default setting)
- Off

AutoSend periodic self-test (PST)

Enables (ON) or disables (OFF) the ability of the defibrillator to automatically send periodic self-tests from the device's infrared (IrDA) window.

The allowable settings are:

- On** (the default setting)
- Off

Defibrillation group

These parameters govern the number of and time between defibrillation shocks in a shock series.

Shock Series

(Number of shocks per stack)

Sets the number of shocks in a series that must be delivered to start the automatic protocol pause for patient assessment and CPR.

During the protocol pause, the defibrillator does not perform rhythm analysis.

The protocol pause timer setting determines the length of the protocol pause after the defibrillator completes a shock series.

The allowable settings are:

- 1 (the default setting)
- 2
- 3
- 4

Shock Series Interval

Sets the time interval used to determine if a delivered shock should be counted as part of the current shock series.

This parameter applies only when the **Shock series** setting is greater than 1. The interval is in minutes.

The allowable settings are:

- 1 (the default setting)
- 2
- Infinite

CPR group

These parameters determine how HeartStart HS1 orchestrates the CPR protocol.

No Shock Advised pause type

Sets the type of pause following a No Shock Advised decision.

The allowable settings are:

Standard: The defibrillator does not perform rhythm analysis during the pause. The pause time is determined by the selected protocol pause timer and **No Shock Advised pause timer** settings.

SMART (the default setting): The defibrillator conducts background monitoring during the pause. If the defibrillator detects a potentially shockable rhythm, the defibrillator ends the SMART pause and resumes rhythm analysis (unless CPR or CPR coaching is being performed).

If CPR or CPR coaching is being performed, the SMART NSA pause converts to a standard NSA pause.

No Shock Advised pause timer

Sets the length of the No Shock Advised (NSA) pause interval. The NSA pause interval starts after an NSA decision. The pause interval is in minutes.

If the defibrillator delivers a shock within the shock series interval, the defibrillator overrides this setting and defines the length of the pause by the protocol pause timer setting.

The allowable settings are:

- 0.5
- 1.0
- 1.5
- 2.0 (the default setting)**
- 2.5
- 3.0

Protocol pause timer

Sets the length of the CPR pause interval. The CPR pause interval starts after the defibrillator completes voice instruction and a shock series. After the protocol pause, the defibrillator returns to automatic rhythm analysis. The pause interval is in minutes.

The allowable settings are:

- 0.5
- 1.0
- 1.5
- 2.0 (the default setting)**
- 2.5
- 3.0

CPR compression ratio

Sets the rate for CPR compression signals provided by the defibrillator. The compression ratio is the number of compressions and breaths administered during a minute.

Pauses begin and end with compressions.

The allowable settings are:

Adult = 30:2, Pediatric = 30:2 (the default setting)

Adult = 30:2, Pediatric = 15:2

Adult = 15:2, Pediatric = 15:2

CPR adult ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for adults while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with adult pads.
- Choose **No ventilation** if coaching will be compressions-only when an adult pads connector is installed.

The allowable settings are:

With ventilation (the default setting)

No ventilation

CPR infant/child ventilation

Specifies that the responders use ventilation prompts at the ventilation ratio for children and infants while the defibrillator is in use.

- Choose **With ventilation** if responders provide ventilation when performing CPR with infant/child pads connected.
- Choose **No ventilation** if coaching will be compressions-only when an infant/child pads connector is installed.

The allowable settings are:

With ventilation (the default setting)

No ventilation

Voice Prompts group

Determines the timing and content of key protocol voice instructions.

Call EMS voice instruction

Sets the point at which the defibrillator plays the voice instruction to call emergency medical services.

The allowable settings are:

At power on

At power on and at the start of the first pause interval

At the start of the first pause interval (the default setting)

No reminder

CPR prompt

Sets the CPR reminder voice prompts.

The allowable settings are:

CPR 1: Begin CPR.

CPR 2: It is safe to touch the patient. Begin CPR.

CPR 3: Begin CPR. For help with CPR, press flashing blue button.

CPR 4 (the default setting): It is safe to touch the patient. Begin CPR. For help with CPR, press the flashing blue button.

HS1 2000 Configuration Parameters

This topic describes the configuration parameters for the HeartStart HS1 defibrillator programmed to observe the 2000 guidelines. For more information on how to set HeartStart HS1 parameters for specific uses, see the *HeartStart HS1 Defibrillator Owner's Manual*.

When HeartStart Configure retrieves a configuration, the defibrillator serial number appears in the title bar for the workspace.



Default field settings in the menus appear in **bold** black typeface. Nondefault settings in the workspace appear in blue typeface.

Overview group

In the Overview, you can type your own configuration identifier information into text boxes. This area also indicates the last date and time that the configuration was modified.

Configuration name

Displays the name of the configuration.

You can change the assigned name.

Configuration description

Displays the description of the configuration.

You can change the description by typing details in the box.

Date modified

Displays the date and time that the configuration was created or last updated.

User Name

Displays the user name of the user who modified the configuration.

You can type a unique user name.

Device group

The device operation parameter settings determine the basic behavior of HeartStart HS1, irrespective of individual protocols.

Volume

Sets the volume of the defibrillator speaker. 1 is lowest; 8 is highest. The defibrillator uses the speaker for voice instructions and the charge-done tone.

The allowable settings are:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8** (the default setting)

Send ECG

Enables (ON) or disables (OFF) the ability to send ECG information (in real time) from the defibrillator IrDA window.

Also known as "ECG out."

The allowable settings are:

- On** (the default setting)
- Off

AutoSend periodic self-test (PST)

Enables (ON) or disables (OFF) the ability of the defibrillator to automatically send periodic self-tests from the defibrillator's infrared (IrDA) window.

The allowable settings are:

- On** (the default setting)
- Off

Defibrillation group

These parameters govern the number of and time between defibrillation shocks in a shock series.

Shock series

(Number of shocks per stack)

Sets the number of shocks in a series that must be delivered to start the automatic protocol pause for patient assessment and CPR.

During the protocol pause, the defibrillator does not perform rhythm analysis.

The protocol pause timer setting determines the length of the protocol pause after the defibrillator completes a shock series.

The allowable settings are:

- 1
- 2
- 3** (the default setting)
- 4

Shock Series Interval

Sets the time interval used to determine if a delivered shock should be counted as part of the current shock series. This parameter applies only when the **Shock series** setting is greater than 1. The interval is in minutes.

The allowable settings are:

- 1** (the default setting)
- 2
- Infinite

CPR group

These parameters determine how the HeartStart HS1 orchestrates the CPR protocol.

No Shock Advised pause type

Sets the type of pause following a No Shock Advised decision.

The allowable settings are:

Standard: The defibrillator does not perform rhythm analysis during the pause. The pause time is determined by the selected protocol pause timer and **No Shock Advised pause timer** settings.

SMART (the default setting): The defibrillator conducts background monitoring during the pause. If the defibrillator detects a potentially shockable rhythm, the defibrillator ends the SMART pause and resumes rhythm analysis (unless CPR or CPR coaching is being performed).

If CPR or CPR coaching is being performed, the SMART NSA pause converts to a standard NSA pause.

No Shock Advised pause timer

Sets the length of the No Shock Advised (NSA) pause interval. The NSA pause interval starts after an NSA decision. The pause interval is in minutes.

If the defibrillator delivers a shock within the shock series interval, the defibrillator overrides this setting and defines the length of the pause by the protocol pause timer setting.

The allowable settings are:

- 0.5
- 1.0** (the default setting)
- 1.5
- 2.0
- 2.5
- 3.0

Protocol pause timer

Sets the length of the CPR pause interval. The CPR pause interval starts after the defibrillator completes voice instruction and a shock series.

After the protocol pause, the defibrillator returns to automatic rhythm analysis. The pause interval is in minutes.

The allowable settings are:

- 0.5
- 1.0** (the default setting)
- 1.5
- 2.0
- 2.5
- 3.0

CPR prompt rate (compressions per minute)

Sets the rate for CPR compression signals provided by the defibrillator. The compression ratio is the number of compressions administered during a minute.

The allowable settings are:

- 80
- 100** (the default setting)

Voice Prompts group

Determines the timing and content of key protocol voice instructions.

Call EMS voice instruction

Sets the point when the defibrillator plays the voice instruction to call emergency medical services.

The allowable settings are:

At power on

At power on and at the start of the first pause interval

At the start of the first pause interval (the default setting)

No reminder

CPR prompt

Sets the CPR reminder voice prompts.

The allowable settings are:

CPR 1: Check circulation. If needed, begin CPR.

CPR 2: Check airway. Check breathing. Check circulation. If needed, begin CPR.

CPR 3: Check circulation. If needed, begin CPR. For help with CPR, press the flashing blue button.

CPR 4 (the default setting): Check airway. Check breathing. Check circulation. If needed, begin CPR. For help with CPR, press the flashing blue button.

Understanding Voice and Screen Messages

All HeartStart defibrillators use messages to ensure that you are aware of the defibrillator's current status.

The HeartStart FRx and HeartStart HS1 models use voice messages, and the HeartStart FR3 model uses screen and voice messages.

Following these announcements, you can place the defibrillator in Administration mode and complete configuration tasks.

Defibrillator Voice and Screen Messages

The voice messages are as follows:

- Insert pads cartridge (for HeartStart HS1)
- Plug in pads connector (for HeartStart FRx)
- Apply Pads. Plug in pads connector (for HeartStart FR3)

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System Log Messages

Use the System Log to monitor HeartStart Configure system activity and to troubleshoot problems. For more information, see [Working with the System Log on page 73](#).

There are two types of System Log messages:

- **Error** messages describe incomplete actions.
- **Information** messages describe the actions that HeartStart Configure completes successfully.

The following table identifies the type of message, the message as it appears in the action column, and a description or example of messages.

 Examples are in parentheses.

System Log Messages

Type of Message	Action	Description and Example
Error	Export configuration	Failed to export configuration (Name = HS1, Pathname = C:\Documents and Settings\MyComputer\Desktop\ Configurations\HS12000.xml.)
Error	Import configuration	Failed to import file (Pathname = C:\Documents and Settings\MyComputer\Desktop\ Configurations\FRx2005.xml.)
Error	Retrieve configuration	Configuration retrieve failed:

D - System Log Messages

Type of Message	Action	Description and Example
		(Error = Failed to Retrieve Configuration)
Error	Update application	Failed in check for application updates
Error	Update application	Failed to update the application
Error	Save configuration	Updated the application
Error	Send configuration	Send failed: (Model = FR3, Error = Configuration send failed)
Error	Set the defibrillator clock	Failed to set the defibrillator clock (Model = FR3, Serial Number = C09B-00000)
Error	Unexpected error	The following exception occurred: There is an unexpected exception.
Information	Close application	Closed the application
Information	Delete configuration	Deleted configuration (Model = FR3, Name = New FR3 2005 configuration)
Information	Export configuration	Exported configuration (Name = FR3, Pathname = C:\Documents and Settings\MyComputer\Desktop\ Configurations\FR32005.xml.)
Information	Import configuration	Imported configuration (Pathname = C:\Documents and Settings\MyComputer\Desktop\ Configurations\FR32005.xml.)
Information	Open application	Opened the application
Information	Update application	Updated the application

Type of Message	Action	Description and Example
Information	Retrieve configuration	Retrieved configuration from the defibrillator (Model = FR3, Serial Number = C09B-00000)
Information	Save configuration	Created configuration (Model = FR3, Name = New FR3 2005 Configuration)
Information	Send configuration	Sent configuration to the defibrillator (Model = FRx, Serial Number = 01234)
Information	Set the defibrillator clock	Set the defibrillator clock succeeded (Model = FR3, Serial Number = C09B-00000)

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Glossary

Administration

Administration mode allows you to apply or change configuration settings in a HeartStart supported defibrillator, and also allows an administrator to view HeartStart Configure activities.

Administration mode

A setting on HeartStart defibrillators that allows the defibrillator to send and receive information.

Administration pane

The Administration pane allows you to view system log entries for the computer running HeartStart Configure.

AED

Stands for Automated External Defibrillator. A defibrillator that automatically performs rhythm analysis of the patient's surface electrocardiogram.

All Configurations

A feature in the Saved Configurations pane that allows you to view all configurations that are available for viewing and editing in HeartStart Configure.

Archive

To store or save information.

Attend to Patient Period

A period following a no shock Advised (NSA) decision during which the responder may perform CPR, if needed, or otherwise attend to the patient.

Bluetooth wireless transmission

Use of an optional FR3 Bluetooth wireless technology transceiver module to transfer a configuration from a HeartStart FR3 defibrillator to a Bluetooth-enabled computer.

Bluetooth®

A short-range wireless technology that uses radio links between a device such as defibrillators and computers, mobile computers, mobile phones, and other portable devices.

Bystander CPR

The attempt to perform basic CPR by someone who is not part of an organized emergency response system. Typically, this person witnessed the arrest. In certain situations, physicians, nurses, and paramedics may perform bystander CPR.

Card reader

Hardware that reads information from a data card.

CFG

Stands for configuration file. This binary file extension type is used for a HeartStart FR3 configuration file.

Configuration

A file that sets the behavior of a defibrillator.

Configuration Tasks

A task pane in HeartStart Configure that allows you to create defibrillator configurations per American Heart Association (AHA) guidelines, and set time, date, and language options for the HeartStart FR3 defibrillator.

Configurations (feature)

A feature set that allows you to configure, manage, and review information about a defibrillator configuration. HeartStart Configure identifies each configuration based on the type, name and the date and time of the configuration. This allows you to list configurations based on a variety of values.

Configurations pane

The Configurations pane allows you to view and manage supported defibrillator configurations.

CPR

Stands for Cardiopulmonary Resuscitation. A technique for providing artificial respiration and heart compressions to maintain life in a victim of Sudden Cardiac Arrest (SCA).

DAT

Stands for data file. This binary file format is used by Event Review 3.5 and Event Review Pro 3.5 for HeartStart FRx and HS1 defibrillator configurations.

Data Card

A computer storage device used for recording and storing information. Some HeartStart defibrillators use data cards to record configuration, ECG, and audio information.

Defibrillator event

Information received from a defibrillator. Examples are alarms, shocks, measurements, and error conditions.

Device

A generic term used for defibrillators and data cards.

ECG

Stands for electrocardiogram. The electrical rhythm of the heart as detected through defibrillator pads.

EMS

Stands for Emergency Medical Services.

Error

Describes a system error or an erroneous input by the user.

Export

Saving a configuration as a file for use on another computer running HeartStart Configure. This is typically done to share a configuration with other users or to back up a configuration.

Feature

A link or button within the HeartStart Configure task pane that allows you to complete a task.

Fibrillation

A disturbance of the normal heart rhythm that results in chaotic, disorganized activity that cannot effectively pump blood. Ventricular fibrillation (fibrillation in the lower chambers of the heart) is the most common cause of sudden cardiac arrest.

FR3

A HeartStart compact, battery-powered automated external defibrillator (AED) designed for use by trained responders to treat ventricular fibrillation (VF), the most common cause of sudden cardiac arrest (SCA).

FRx

A HeartStart compact, battery-powered automated external defibrillator (AED) designed for use by trained responders to treat ventricular fibrillation (VF), the most common cause of sudden cardiac arrest (SCA).

Getting Started

A task pane in HeartStart Configure that allows you to navigate to online help, selecting accessories, and check for software updates.

HS1

A HeartStart compact, battery-powered automated external defibrillator (AED) that is designed for simple and reliable operation by minimally trained users to treat ventricular fibrillation (VF), the most common cause of sudden cardiac arrest (SCA).

HTTP

Stands for Hypertext Transfer Protocol. The set of rules for exchanging files (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Import

Opening a defibrillator configuration file that is not stored in HeartStart Configure, and was created by another user on another installation of HeartStart Configure.

Incident

The series of events involved in treating a patient with a defibrillator.

Information

Details action and events of an end-user using HeartStart Configure.

Language Card

A secure digital (SD) card that can be purchased separately for the HeartStart FR3 defibrillator model. It contains languages used by the local culture. You can either change the primary language, or set a second language for bilingual operation.

License Manager

The License Manager allows you to type in your registration key to activate HeartStart Configure software.

Navigation pane

Use the navigation pane to navigate to workspaces and to select a defibrillator and perform defibrillator configuration tasks.

NSA

Stands for no shock advised. A decision that is made by the defibrillator based on analysis of the patient's heart rhythm. The defibrillator will not deliver a shock in this mode.

PST

For Periodic Self Test. A self-administered test mode that a HeartStart defibrillator runs to ensure that all defibrillator components are functional and work properly. Test results are Pass, Warning, or Call customer support.

Save

Adding a new configuration the information and its associated details to the HeartStart Configure dataset for reuse later on other defibrillators in order to standardize defibrillator behavior.

Saved configurations

The area of the Navigation pane where configurations can be viewed and filtered based on supported defibrillator type.

Shock series

Also called shock stack. A sequence of one or more shocks, each separated by no more than a preset interval. After completion of a shock series, the defibrillator automatically provides a CPR protocol.

SMART analysis

The proprietary algorithm used by the FR3 to analyze the patient's heart rhythm and determine whether a shock is advised.

Smart CPR

A configurable feature that, either automatically or by manual selection, enables a CPR interval before rhythm analysis and shock decision for patients with a shockable rhythm.

System log

The system log lists all monitored application activity. Use the system log to review application usage.

Task wizard

A software feature that guides the user through a task.

URL

Stands for Uniform Resource Locator. An address for a resource on the Internet. URLs are used by Web browsers to locate Internet resources. A URL specifies the protocol to be used in accessing the resource (such as http: for a World Wide Web page or ftp: for an FTP site), the name of the server on which the resource resides (such as //www.whitehouse.gov), and, optionally, the path to a resource (such as an HTML document or a file on that server).

Workspace

The pane to the right of the HeartStart Configure navigation pane. It displays the active window for entering and viewing information.

XML

Stands for eXtensible Markup Language. This file format has a set of rules for encoding documents in machine-readable form. It is used for HeartStart Configure 3.0 configuration files. A HeartStart Configure 3.0 file is exported in the XML file format.

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