HeartStart Data Messenger
User guide

PHILIPS

About this edition

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Installing HeartStart Data Messenger

This section contains system requirements, plus installation, updating, and activation procedures for Data Messenger. Also included is information about uninstalling Data Messenger.

About the Data Messenger software

You can use the Data Messenger software on a personal computer, laptop, or tablet PC. For supported computer platforms, see System requirements on page 8.

When you download Data Messenger software, you are downloading the complete software, with access to all capabilities.

You can use the Data Messenger Configuration window to configure additional data-identification information, to set up Data Messenger in either the Manual Process or the Automatic mode, and to configure your workflow and the destinations that receive the patient data.

In the Manual Process mode, you can use the Data Messenger Manual Process window to receive case data from your defibrillator, and to monitor patient data and Data Messenger system activity. You can edit patient-identification information, print a case report, and prepare and forward (process) the data files manually. You can also prepare the defibrillator for the next use by removing the data on it.

In the Automatic mode, you see status messages as Data Messenger processes patient data without your intervention. Data Messenger receives defibrillator data, such as patient event summaries, 12-lead reports, or periodic clinical data. The software then processes the data according to the preconfigured workflow.

You can use all of the Data Messenger capabilities on a trial basis for 60 days before purchasing an activation license. Philips recommends that you purchase a license and activate the software before the 60 days has expired. See Activating Data Messenger on page 13.

System requirements

This topic describes the minimum requirements to run Data Messenger. You should choose hardware that is certified as Microsoft-compatible.

The software and hardware listed in the following table are provided by the customer, unless noted. The table includes a few components that are not required but that may be useful.

This table has the following sections:

- Software requirements
- Hardware requirements
- Accessories

Component	Requirements and purpose
Software requirements	
Operating system	Microsoft Windows XP Professional SP 3 (32-bit)
	Microsoft Windows XP Tablet Edition (32-bit)
	Microsoft Windows 7 (32-bit and 64-bit)
	ℹ️ Data Messenger is tested and validated only with the above operating systems. Other operating system versions are unsupported.
Browser	Microsoft Internet Explorer 7.0 or later
	To access the Internet for product downloads.
Hardware requirements	
Processor speed	1 GHZ or higher
Display	1280 x 768 or higher
Memory	Minimum: 1 GB
Disk storage space	Minimum: 40 GB

Internet or intranet connection	To download and activate the software.
	To transfer a case to HeartStart Event Review Pro and HeartStart Telemedicine destinations.
Ethernet connection	To receive HeartStart MRx data through batch LAN data transfers.
Accessories	
PDF Reader	To view the *HeartStart Data Messenger user guide*.
	To view Data Messenger reports.
Backup and restore tool	To prevent data loss.
	Recommended: Store backup information at a separate location on the backup device of your organization's choice. You should have a plan for recovering information in the event of a software or hardware failure.
Email application	To send cases using email.
	To activate the software using an alternate method.
	To configure a MAPI client when using an email client.
Printer	To print Full Disclosure and Pre- and Post-shock reports.
	Recommended: Postscript printer
Bluetooth adapter	To transfer HeartStart FR3 or HeartStart MRx patient data using *Bluetooth* wireless transfer.
	For more HeartStart MRx information, see the *Data transmission implementation guide*.
FTP server	To support HeartStart MRx batch LAN data transfers.
	You will need a login and password. Consult IT personnel for further information.
Infrared Data Associates (IrDA) adapter	To retrieve and send information from HeartStart FRx and HeartStart HS1 defibrillators.
	You can purchase an infrared adapter from Philips.
	Your computer must support IRDA functionality and an infrared adapter.

Card reader or card adapter	To receive defibrillator data.
	HeartStart FR3 defibrillators use a custom Philips version of the CompactFlash card.
	HeartStart FR2 and HeartStart MRx defibrillators use a Compact Flash card.
	HeartStart XL defibrillators use ATA flash cards with ATA flash-card readers.
	HeartStart XL+ defibrillators use a USB drive and USB port.
Mobile devices	To monitor Data Messenger as the software receives, prepares, and transfers patient data according to the preconfigured workflow.
	Windows Mobile 6.5
	Wifi or Internet access to transfer patient data using infrared transmission, data-card access, or *Bluetooth* transmission.
	For information about *Bluetooth* accessories, see Selecting accessories for data transfer on page 85.
	To synchronize information, use:
	Microsoft ActiveSync for Windows XP or Windows tablet PC
	Windows Mobile Device Center for Windows 7

Downloading Data Messenger

To download the current version of Data Messenger from the Internet, use the instructions that you received from Philips or your sales representative.

To download Data Messenger

1. Use your Internet browser to navigate to the following URL, which is also provided on your Proof of Purchase certificate:
http://www.philips.com/DataMessengerDownload

2. Save the software on your preferred media.

Limited-feature version

If your Data Messenger software has been installed for 60 days, and you have not yet purchased an activation license, your software will revert to a limited-feature version.

When using the limited-feature version, you will no longer be able to perform some processes on your data. The Automatic mode is not supported, and you will be unable to transfer cases to another destination.

You will be able to download the data from a defibrillator, and view and print the case report. You can also prepare the defibrillator for the next patient by removing the current patient data from Data Messenger and its data source—either a defibrillator, a data card, a *Bluetooth* inbox, or a FTP folder.

Contact customer support if your software has reverted to the limited-feature version, and you want to activate it. See Customer support on page 110.

A Mobile Edition of Data Messenger is available (only in English), for use in special circumstances. It is supported on a limited number of mobile devices. The Mobile Edition software is included in the initial download of Data Messenger software. However, the Data Messenger license must be activated before the Mobile Edition can be set up. For details, see Mobile Edition prerequisites on page 98.

Downloading an update

At any time, you can use the Check for Updates option on the Help menu to look for and download an updated version of the software.

Before you install the software update, make sure that you have Windows Administrator privileges on the computer.

To download the update

1. Open the Data Messenger software that you want to update.

2. On the Help menu, click **Check for Updates**.

   The software connects to the Internet. A wizard window searches for updates and displays a list of updates.

3. Click **Data Messenger**.

4. Click **Download**.

   Note the name and location of the download that you want to save.

5. When the file finishes downloading, click **Finish**.

6. Close the Data Messenger window.

7. Navigate to the directory where you saved the downloaded installation file with the .exe extension.

8. Double-click the installation file.

9. Follow the on-screen instructions.

Installing Data Messenger

You can install the software from the file that is saved on your computer, or from a file that is saved on your preferred media.

To install Data Messenger, you must have Windows Administrator privileges on the Data Messenger computer.

To install Data Messenger

1. Navigate to the directory where you saved the downloaded installation file.

2. Double-click the setup file.

    A message might appear advising that the Data Messenger installation will make changes to the computer.

3. Click **Yes** to continue with the installation.

4. Follow the on-screen instructions.

Uninstalling Data Messenger

You can remove Data Messenger from the computer to reuse the license on another computer at any time. For example, you might want to do this if you no longer need to use Data Messenger, or if you want to install the software on another computer.

Configuration files are not deleted when the application is uninstalled, so you can reinstall Data Messenger or upgrade later.

In order to deactivate the software license and reuse it on another computer, you must connect your computer to the Internet. If you do not deactivate the license, you cannot use the second nonactivated software after the 60-day trial period. Contact customer support if you do not have access to the Internet.

If you use Mobile Edition, you can also remove the Data Messenger Mobile Edition from the mobile device without removing the software on the current computer. See Uninstalling the Mobile Edition on page 106.

Activating Data Messenger

After you install the software, activate Data Messenger. Activation is designed to verify that software products are licensed correctly.

Activation is required to continue using the complete version of Data Messenger without interruption. See your proof of purchase booklet for activation information, or consult your Philips Account Manager for information on purchasing the activation license. If the license is not activated within 60 days, Data Messenger reverts to a limited-feature version. See Limited-feature version on page 10.

When you activate the software, you need the product serial number on the Proof of Purchase certificate that you received. Save the product serial number in a safe place in case you need to re-install the software.

You can use the Internet (Activate over the Internet on page 13) or email (Activate by email on page 14) to activate the software after you install Data Messenger. Until you complete the activation, you will see the Philips HeartStart Activation Wizard window when the software starts.

ℹ   The person who activates the software in Windows 7 should use the Administrator account.

Activate over the Internet

Internet activation is faster than activating by email, and is the preferred activation method.

The activation wizard sends encrypted information to Philips to validate the product serial number.

To activate the software by the Internet

1. Start the software.

    The software displays HeartStart Activation Wizard.

2. In the Serial number field, type the product serial number. A product serial number looks like this: Z0410X999999879

3. Click **I Want to Activate the Software over the Internet**.

4. Click **Activate**.

   The wizard validates your entry. When the activation is successful, the wizard displays a congratulations message.

5. Click **OK**.

   The wizard starts Data Messenger.

Activate by email

Email activation is slower than activation by Internet, and is not the preferred activation method. It might take several business days to complete the activation.

Email activation involves exchanging emails with Philips Customer Support.

You can click the Help button in the Activation Wizard to print the steps on how to activate the software by email.

To activate the software by email

1. Start the software.

   The software displays HeartStart Activation Wizard.

2. In the Serial number field, type the product serial number. A product serial number looks like this: Z0410X999999879

3. Click **I Want to Activate the Software by Email**.

4. Click **Next**.

5. Click **Request Activation Code**.

   The wizard sends your email request to Customer Support and starts the software.

When you receive an email from Customer Support, complete the following

1. Start the software.

   The software displays the HeartStart Activation Wizard with the product serial number that you entered.

2. Click **I Want to Activate the Software by Email**.

3. Click **Next** to access the Activate by Email page.

4. In the Enter your activation code field, type the activation code.

5. Click **Activate**.

    The wizard validates your entry and displays a congratulations message.

6. Click **OK**.

    The wizard starts the software.

Activate later

If you do not want to activate your copy of the software when you start it, click the Skip button.

Until you activate the software, you will see the HeartStart Activation Wizard window each time that you start the software.

During the 60-day trial period, you can use the software and save your work.

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Getting started

Philips HeartStart Data Messenger (Data Messenger) streamlines the process of transferring patient data from Philips defibrillators. You can use Data Messenger to view, print, email, and save patient data. Data Messenger can also forward the data for retrospective quality review for care decisions before the patient arrives to the hospital. This section introduces you to some of the most common tasks.

Intended use

HeartStart Data Messenger forwards, monitors, and manages the transfer of patient case data from defibrillators and AEDs to HeartStart Event Review Pro, folders (local and network), printers, or email. Data Messenger also forwards Periodic Clinical Data Transmission (PCDT) and 12-lead ECG data to a hospital Telemedicine System before patient arrival. Data Messenger operates as an on-screen or background application in either the Automatic mode or the Manual Process mode.

New in this release

This release of Data Messenger is updated with the following features:

- Support for data transfer from HeartStart FR3 AEDs with three lead and QCPR.

Configuration

- Option to clear preset reference and institution information from a transmission.

- Option to play a sound each time a case is received, processed, or causes an error in Automatic mode.

- Option to clear out failed MRx transmission files.

- Option to copy failed MRx transmission files to a backup directory.

- Maximum number of retries for forwarding data to Event Review Pro and Telemedicine changed to 99.

Manual Process mode

- The message "Please wait for cases to load" appears when cases initially load in Manual Process mode.

- Option to display the Data Messenger Manual Process window in full screen.

- Total numbers of cases, and number selected, display at bottom of window.

- Option to delete cases from both the cases list and the source.

Automatic mode

- Notification window on task bar displays a scrolling list of incoming case messages.

- Clicking in the notification window prevents the window from fading out on your computer screen after seven seconds.

- Double-clicking in notification window starts Manual Process mode and displays the System Log tab.

Document conventions

This document uses the following conventions to help identify information.

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

ℹ A blue box with a note icon contains information on how features are used.

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

How Data Messenger is used

HeartStart Data Messenger is a data-download and forwarding tool that helps you get data off the defibrillator and forward it to the place that it ultimately needs to go.

Users in different healthcare situations use Data Messenger in a number of different ways, based on their unique workflows and existing infrastructure. For example, you can use Data Messenger in the following ways:

• Download (to a computer) and print cases manually or automatically.

• Transfer case data to HeartStart Event Review Pro for retrospective review by your Medical Director.

• Transfer 12-lead reports or periodic clinical data to a receiving hospital through the Internet before the patient arrives.

• Use Data Messenger on a tablet PC in the back of an ambulance to transfer patient event-summary data automatically to a shared network drive for use in a third-party application, or to transfer patient data automatically to HeartStart Telemedicine.

• Automatically transfer the patient event summaries from the HeartStart MRx at the end of the work shift.

Starting Data Messenger

Data Messenger does not place an icon on the desktop. To start Data Messenger, use the shortcut on the Start menu or All Programs menu.

To start Data Messenger

1. Click the Windows **Start** button.

2. Click **All Programs**.

3. Click **Philips HeartStart Data Messenger 4.3**.

4. Click **Data Messenger Manual Process**.

5. Follow the on-screen instructions for the Philips HeartStart Activation Wizard.

Data Messenger keeps track of the number of days before the trial period expires. If you do not activate the software after the 60-day trial period, Data Messenger reverts to the limited-feature version.

HeartStart Data Messenger features

Data Messenger supports Microsoft Windows XP running on x86 (32-bit), and Microsoft Windows 7 running on x86 (32-bit) and x64 (64-bit) computers.

Patient data includes patient cases from HeartStart AEDs and monitor/defibrillators, as well as periodic clinical data, 12-lead reports, vital signs, and trigger events from Philips advanced defibrillator/monitors.

Understanding Data Messenger transmissions

Data Messenger processes two types of data:

- Case data from a cardiac emergency that was collected by a monitor/defibrillator or an automated external defibrillator (AED).

- Periodic clinical data that was recorded while a patient was transported to a medical facility.

Data moves to Data Messenger using different methods for each defibrillator product. Those methods include infrared connections, card readers, USB drives, *Bluetooth* connections, and batch LAN data transfer FTP.

The following table shows the data transfer methods used by supported HeartStart defibrillators. Patient data may be transferred to HeartStart Event Review Pro, printers, or email, or may be exported to a folder.

Supported defibrillators	Data transfer methods
HeartStart HS1	IrDA (infrared)
HeartStart FRx	IrDA (infrared)

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Supported defibrillators	Data transfer methods
HeartStart FR2	Data card
HeartStart FR3	Data card *Bluetooth*
HeartStart XL	Data card
HeartStart XL+	USB drive
HeartStart MRx monitor/defibrillator	*Bluetooth* Data card Ethernet cable 12-lead data also transferrable through network/FTP

For information about a specific defibrillator, see Working with defibrillators on page 65.

Planning your workflow

Philips recommends that you plan your data flow and requirements with your IT department and data managers. During this time, determine how you want to use Data Messenger in your workflow.

Use the *Data management solutions implementation guide* to help set up Data Messenger, the network connections, and the environment.

For example, consider these questions:

- Do you want to print a case report?

- Do you want to transfer patient data from the Philips defibrillator to a computer with Data Messenger installed?

- Do you want to transfer the cases manually or automatically?

- Do you want to transfer patient data to HeartStart Event Review Pro?

- Do you want to use a mobile device to monitor the transfer of patient data to a destination?

Data Messenger tasks

The default Data Messenger configuration allows you to receive patient event-summary data once you connect to the defibrillator or its data source, such as a data card.

You can print a case report, delete the patient data from Data Messenger and its data source, or back up the data for future use. You can also monitor Data Messenger activity.

At any time, you can change the default configuration to meet your organization's workflow. For example, after you customize the configuration, you can use Data Messenger in the following ways:

- Download patient event-summary data, 12-lead reports, and periodic clinical data from supported defibrillators.

- View and print the case report about the patient event-summary data.

- Edit and forward (process) patient event-summary data manually.

- Save patient event-summary data to an external file (export).

- Edit patient-identification information, and then forward and print reports.

- Forward 12-lead reports and periodic clinical data automatically.

- Monitor Data Messenger activity.

- Change the configuration for your organization's workflow.

Overview

In Data Messenger, you can download defibrillator patient event-summary data and print reports. You can also forward the patient event-summary data to a shared network folder, to an email address, and to Philips HeartStart Event Review Pro.

Patient event-summary data includes information recorded by the supported defibrillators and patient information entered by a Data Messenger user. These features help you to download patient event-summary data for retrospective reviewing.

Emergency Medical Services (EMS) systems can use Data Messenger to transfer HeartStart MRx Monitor/Defibrillator (HeartStart MRx) 12-lead ECGs (12-lead reports) or periodic clinical data to the hospital. This allows hospital clinical staff to prepare before the patient arrives. In this use model, Data Messenger transfers the data to the Philips HeartStart Telemedicine System (HeartStart Telemedicine).

Data Messenger supports the following Philips defibrillator models:

- HeartStart FR3 Defibrillator (HeartStart FR3)

- HeartStart FR2 Defibrillator (HeartStart FR2)

- HeartStart FRx Defibrillator (HeartStart FRx)

- HeartStart HS1 Defibrillator, also known as the OnSite Defibrillator and the Home Defibrillator (HeartStart HS1)

- HeartStart MRx

- HeartStart XL defibrillator

- HeartStart XL+ defibrillator

HeartStart Data Messenger is implemented in one of two ways:

- To operate openly on a computer in the Manual Process mode—users interact with the data in Data Messenger to process the files. For more information, see Processing cases manually on page 47.

- To operate in the background in the Automatic mode—Data Messenger processes files automatically without your intervention. For more information, see Processing cases automatically on page 56.

Monitoring the transfer of event-summary data

Use the Cases tab on the Data Messenger Manual Process window to complete the following tasks on a case-by-case basis:

- View the processing of cases.

- Open (import) a previously saved case.

- Forward selected cases manually to the preconfigured destinations.

- Edit patient identification information for the selected case.

- View the case report.

- Print the preconfigured report.

- Delete selected cases from Data Messenger and its data sources (the defibrillator, a data card, the *Bluetooth* Inbox, or the FTP folder).

- Group and sort the data.

Configuring Data Messenger workflow

You can use the Data Messenger Configuration window to configure Data Messenger to meet your organization's workflow. Configuration involves completing the tabs on the window.

For more information, see Configuring HeartStart Data Messenger on page 28.

Monitoring system activities

You can use the System Log tab on the Data Messenger Manual Process window to monitor system activity and troubleshoot issues. The system log includes a description of each action that Data Messenger completes.

For more information, see System Log messages on page 89.

Typical uses of Data Messenger

Data Messenger acts as a point of communication to transfer patient data from a defibrillator to a destination. Data Messenger can receive patient data through an infrared connection, a data card, FTP, or a *Bluetooth* wireless connection.

Data Messenger can forward defibrillator data in two types of files:

- Original defibrillator data in a file with the .hic extension
- Original defibrillator data with patient and demographic data in a file with the .mic extension

Data Messenger can forward patient data to the following destinations:

- Folder for exported files
- Email address
- Printer
- HeartStart Event Review Pro
- HeartStart Telemedicine
- Third-party application

When you forward a file to an email address, you can attach files with the .hic, .mic, and .pdf file extensions. You can also password-protect files with the .mic and .pdf extensions.

When Data Messenger receives the event-summary data on the Cases list, and processes it according to the configured workflow, the event-summary data becomes a case.

> ℹ️ A case is all the information relating to a specific patient emergency. This includes information recorded by the supported defibrillators as well as information entered by a user.

For information about setting up Data Messenger in combination with other products, see the *Data management solutions implementation guide*.

Uses with HeartStart HS1 and HeartStart FRx

The HeartStart HS1 and HeartStart FRx defibrillators forward cases through an infrared transmission to Data Messenger.

Data Messenger can do the following:

- Send the data to a printer
- Save the data to a folder
- Email the data as a file with the .hic, mic, or .pdf extension
- Forward the data to Event Review Pro

The following illustration shows a sample configuration. The infrared transmission appears at (1).
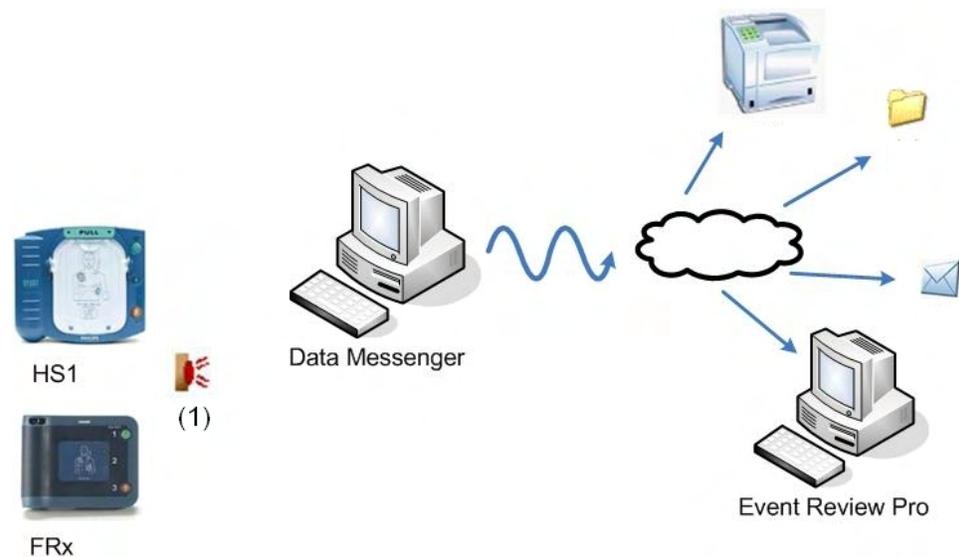
For instructions on performing the HeartStart HS1 data transfer, see Downloading HeartStart HS1 data on page 74.

For instructions on performing the HeartStart FR2 data transfer, see Reading HeartStart FR2 data on page 71.

Uses with HeartStart FR3

The HeartStart FR3 AED defibrillators forward cases to Data Messenger using two methods, *Bluetooth* transmission and data card transfer.

Data Messenger can do the following:

- Send the data to a printer

- Save the data to a folder

- Email the data as a file with the .hic, .mic, or .pdf extension

- Forward data to HeartStart Event Review Pro

The following illustration shows a sample configuration. The data card transfer appears at (1).
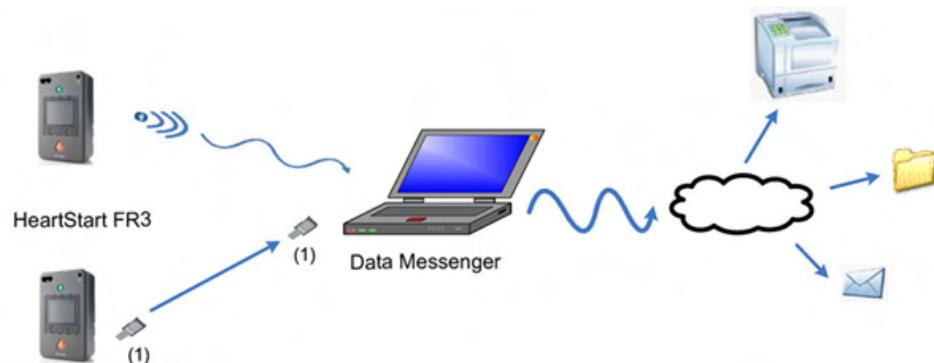
For instructions on performing the HeartStart FR3 data transfer, see Transferring HeartStart FR3 data on page 66.

Uses with HeartStart FR2 and HeartStart XL

The HeartStart FR2 and HeartStart XL defibrillators forward cases through data cards and using the appropriate card adapter to Data Messenger, as shown in the below figure.

Data Messenger can do the following:

- Send the data to a printer

- Save the data to a folder

- Email the data as a file with the .hic, .mic, or .pdf extension

- Forward the data to Event Review Pro

The following illustration shows a sample configuration. The data cards appear at (1) and (2), and the card adaptor appears at (3).

For instructions on performing the HeartStart FR2 data transfer, see

For instructions on performing the HeartStart XL data transfer, see

Uses with HeartStart MRx

The HeartStart MRx defibrillator forwards event-summary data and periodic clinical data to Data Messenger using a data card, a *Bluetooth* FTP connection, or an Ethernet cable.

Data Messenger can do the following:

- Send the data to a printer

- Save the data to a folder

- Email the data as a file with the .hic, .mic, or .pdf extension

- Forward the data to Event Review Pro

The following illustrations show examples of possible configurations. The data card appears at (1), the *Bluetooth* FTP connection appears at (2), and the Ethernet Cable appears at (3).
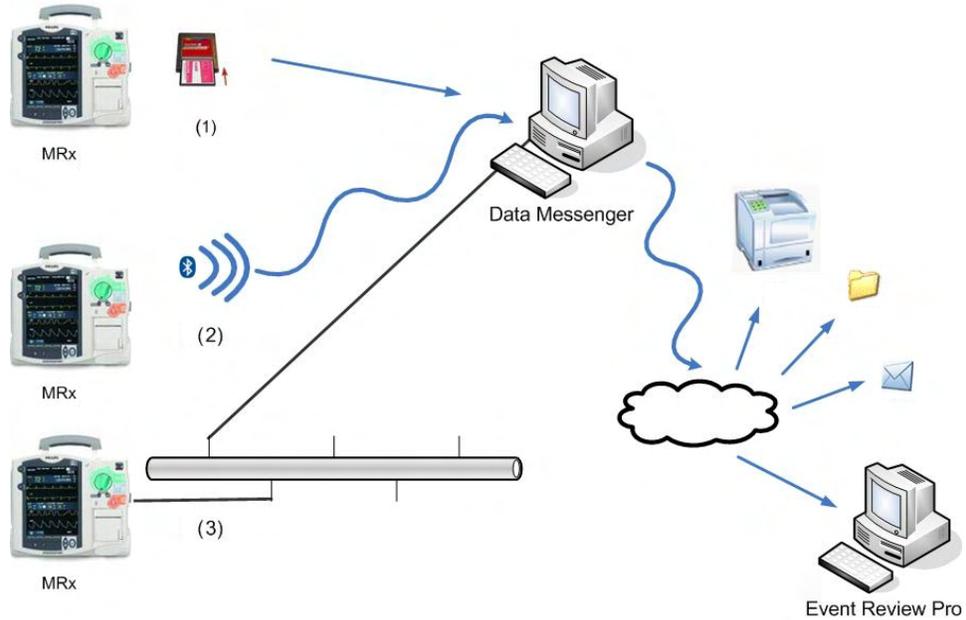
The HeartStart MRx defibrillators forward 12-lead reports and periodic clinical data to HeartStart Telemedicine using *Bluetooth* FTP.
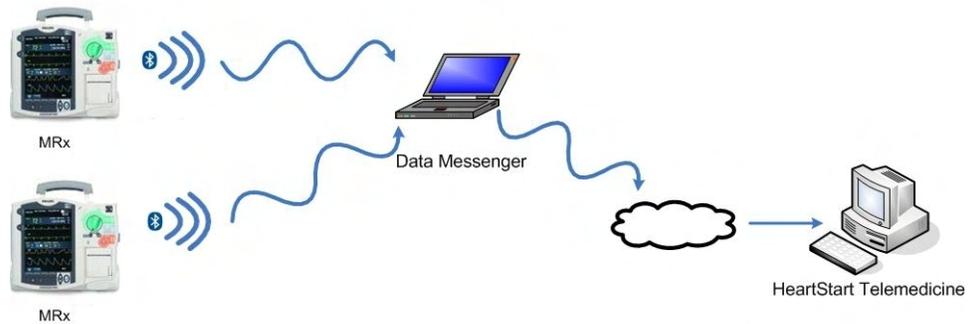
For instructions on performing the HeartStart MRx data transfer, see *Working with HeartStart MRx data* on page 76.

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Configuring HeartStart Data Messenger

You can customize the HeartStart Data Messenger workflow for your organization. The workflow specifies how Data Messenger receives, manages, prints, and saves cases (called "processing" cases).

This section describes how to manage your workflow, and edit and transfer cases. It also includes information for advanced life-support users who forward 12-lead reports, vitals, and trigger events. The configuration settings determine how Data Messenger operates in both the Automatic and Manual Process modes.

When you start Data Messenger and click Data Messenger Configuration, the Data Messenger Configuration window appears. Use this window to set up the Data Messenger workflow. Make sure that you review the default configuration settings on the Data Messenger Configuration window before customizing the settings.

On the Data Messenger Configuration window, you can specify how Data Messenger transfers patient data from the supported defibrillators to destinations such as a printer, a folder, an email address, HeartStart Event Review Pro, or HeartStart Telemedicine. You can also set up Data Messenger to operate automatically without your intervention.

If you have HeartStart FR3 defibrillators with *Bluetooth* wireless technology, and multiple instances of Data Messenger running in close range, then configure all instances with the same reference ID and institution. This way, no matter which instance is detected, the patient data is processed, labeled, and routed in the same fashion.

Using the Data Messenger Configuration window

You can use the Data Messenger Configuration window to change the Data Messenger settings at any time to meet your organization's workflow. Each user can have a different configuration.

⚠ When performing configurations involving connection to a destination using a URL, be sure to verify the URL before working with actual cases. Incorrect connection information may result in delay of data transfer.

The following illustration describes the Data Messenger Configuration window.
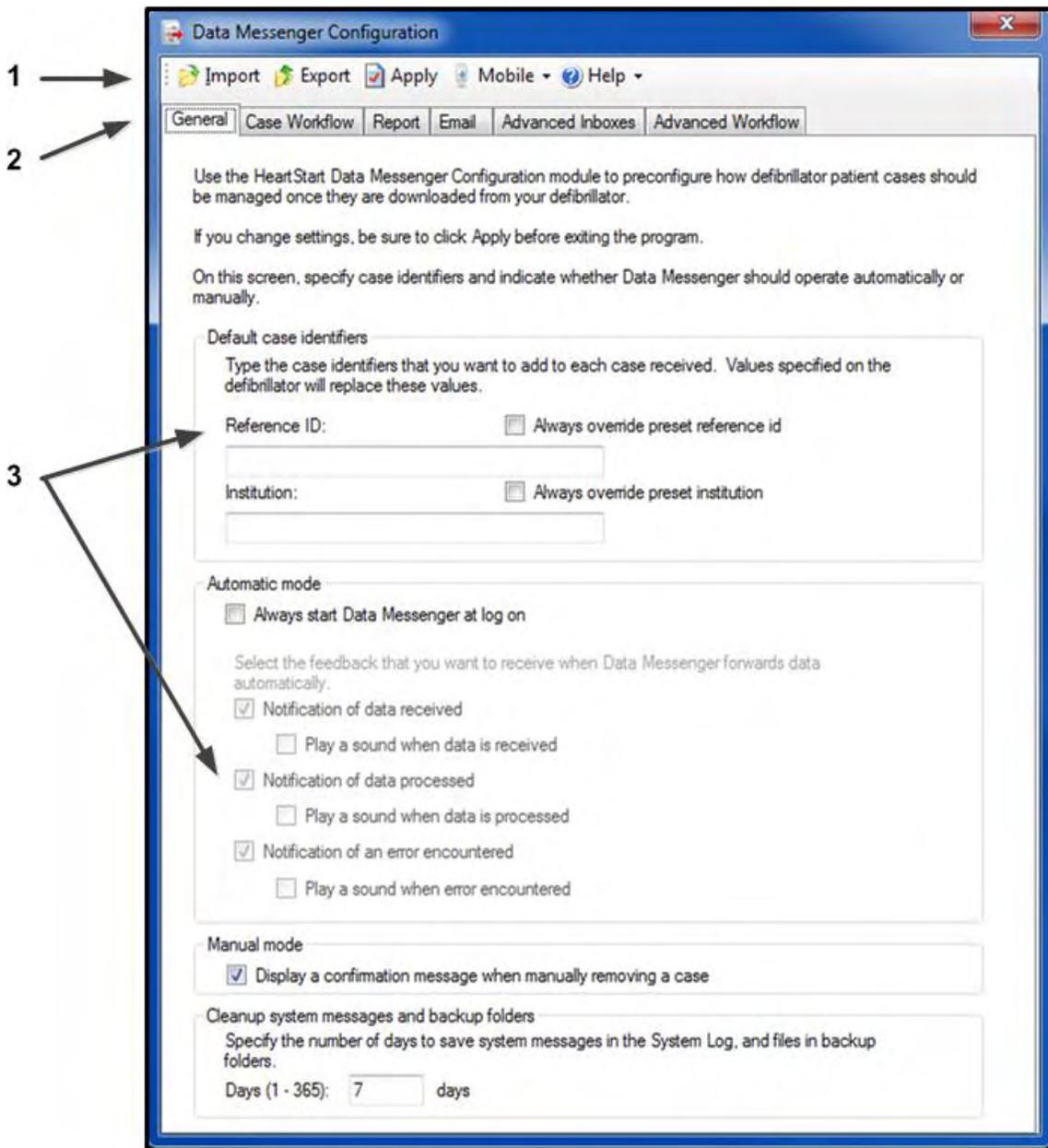
Number	Description
1	The toolbar displays the actions that you can complete manually.
2	The tabs display settings for configuration parameters. Complete the appropriate settings on each tab to customize the configuration for your organization. Data Messenger uses these settings when it operates in both the Automatic and Manual Process modes.
3	In this area, you type entries in text fields, check boxes, or click option buttons that specify a setting.

The Data Messenger Configuration window includes the following tabs that you can use to customize your configuration:

General tab

- Specify the case identifiers to add to patient event-summary data.

- Clear preset reference and institution information from a transmission.

- Set the Automatic mode to start at logon.

- Generate notifications when data is forwarded in the Automatic mode.

- Display a confirmation message when a case is manually removed in the Manual Process mode.

- Set the number of days that Data Messenger stores System Log messages.

Case Workflow tab

- Export case data to a folder.

- Print reports. Full Disclosure and Pre-and Post-shock reports become available for selection on the Report tab.

- Email case data. Options for how to forward attachments become available on the Email tab.

- Forward case information to Event Review Pro.

- Erase source data from a device.

- Back up processed case files.

Advanced Inboxes tab

- Choose the folder where Data Messenger receives *Bluetooth* and Batch LAN data transfer FTP.

- Configure FTP information for use with the HeartStart MRx.

- Clean up incomplete transmissions.

- Back up incomplete transmissions.

Advanced Workflow tab

Use this to select each action that you want Data Messenger to perform for each 12-lead report or periodic clinical data received from HeartStart MRx.

Opening the Data Messenger Configuration window

Use the Data Messenger Configuration window to change the default configuration settings.

In the default workflow, Data Messenger operates in the Manual Process mode.

> ⚠ When you open the Data Messenger Configuration window with Data Messenger in the Automatic mode, the software interrupts the processing of incoming data until you close the Configuration window. Processing continues automatically once the window is closed.

To open the Data Messenger Configuration window

1. On the Windows Start menu, click **All Programs**.

2. Click **Philips HeartStart Data Messenger 4.3**.

3. Click **Data Messenger Configuration**.

   The General tab on the Data Messenger Configuration window appears. Processing of all patient data (cases, 12-lead reports, and periodic clinical data) is interrupted until you close the window.

> ℹ Only the system administrator can access all the tabs on this screen. All the tabs except the General tab are grayed out for all other users. The system administrator is responsible for completing the information on all the tabs. However, any other user can change information on the General tab.

Closing the Data Messenger Configuration window

Click the Close ✖ button on the Data Messenger Configuration window to end the configuration session.

One of the following occurs, depending on the configuration you set up:

- In Manual Process mode, the window closes.

- In Automatic mode, the window closes and patient data continues to process automatically. The Data Messenger ⬚ icon appears in the notification area.

Setting up Data Messenger preferences

Before you begin using Data Messenger, use the General tab to choose from the following settings:

- Specify the case identifiers to add to patient event-summary data.

- Clear preset reference and institution information from a transmission.

- Set the Automatic mode to start when you log on.

- When data is forwarded in the Automatic mode, set the notifications that are sent.

- For each type of notification sent in Automatic mode, set a sound to play.

- In the Manual Process mode, send a confirmation message when a case is manually removed.

- Set the number of days that Data Messenger stores system log messages and backup files.

Configuring Data Messenger to process cases in the Automatic mode

In the default workflow, Data Messenger operates in the Automatic mode. On the General tab, you can set up Data Messenger to use or disable the Automatic mode.

In the Automatic mode, Data Messenger processes the patient event-summary, the 12-lead report, or periodic clinical data automatically without your intervention. When you open Data Messenger in Manual Process mode, automatic processing is interrupted until you close Manual Process mode.

To configure Data Messenger to process patient data automatically

1. In the Data Messenger Configuration window, click the **General** tab.

2. Under Automatic Mode, check the **Always Start Data Messenger at Logon** box.

Under Select the Feedback that You Want to Receive When Data Messenger Forwards Data Automatically, three checkboxes become available. If you want to change these settings, see Controlling feedback messages on page 36.

3. On the toolbar, click **Apply**.

4. Click the **Close** ✖ button.

In the notification area, the Data Messenger 📩 icon appears. This icon appears only when you are in the Automatic mode.

For information about the menu available from the Data Messenger icon, see Using the Data Messenger icon in the notification area on page 57.

To test the Automatic mode setup

1. From the Windows Start menu, click **Log Off**.

Some versions of Windows ask you to verify this action.

2. Click **Log Off**.

3. Log on to the computer.

4. Verify that the Data Messenger 📩 icon appears in the notification area.

To turn off the Automatic mode

1. In the Data Messenger Configuration window, click the **General** tab.

2. Under Automatic Mode, check the **Always Start Data Messenger At Logon** box to clear the selection.

3. On the toolbar, click **Apply**.

4. Click the **Close** ✖ button on the Data Messenger Configuration window.

Adding default case identifiers

If you want to associate cases with a specific organization, response teams, or apparatus, do this on the General tab.

When your defibrillator does not already provide reference ID and institution information (as in the case of the AEDs), use the fields under Default Case Identifiers on the General tab to add them.

Data Messenger overrides the reference ID and institution information in the defibrillator when the "Always override preset reference id" box and the "Always override preset institution" box are both checked.

To add default case identifiers

1. On the Data Messenger Configuration window, click the **General** tab.

2. Do one of the following:

   • To use the Reference ID and Institution from the device, make sure that the "Always Override Preset Reference ID" and "Always Override Preset Institution" boxes are unchecked. If the Reference ID and Institution have already been entered, the Reference ID and Institution on the device will override the information on the screen.

   • To use a Reference ID and Institution of your choice, type a Reference ID and Institution in the Reference ID and Institution fields and make sure that the "Always Override Preset Reference ID" and the "Always Override Preset Institution" boxes are checked.

3. On the toolbar, click **Apply**.

Storing System Log messages and backup files

Use the General tab to set how long Data Messenger stores System Log messages and backup files.

In the default workflow, Data Messenger saves the System Log messages and backup files for seven days.

To modify how long Data Messenger stores System Log messages and backup files

1. On the Data Messenger Configuration window, click the **General** tab.

2. Under Cleanup System Messages and Backup Folders, in Days, type the number of days you want Data Messenger to saves system messages and files in the backup folders. These files consist of processed, unprocessed cases, 12 lead, and PCDT (Periodic Clinical Data Transmission) files.

    The default setting is seven days. The maximum setting is 365 days. After the set number of days, Data Messenger clears or deletes older System Log messages and backup files.

3. On the toolbar, click **Apply**.

> Use the volume of patient data your organization receives to determine the number of days that Data Messenger will store system log messages and backup files. For example, look at the size of the System Log folder and the backup folders after a week of typical processing. Use that size to estimate the required storage capacity. Keep in mind that a large number of stored messages can slow the display of messages.

Controlling feedback messages

Use the settings on the General tab if you want notification messages sent after cases are received or processed while in Automatic mode. You can also choose to have a confirmation message appear when manually removing a case in Manual Process mode.

Feedback in Automatic mode

When Data Messenger operates in the Automatic mode, you can choose to receive feedback messages in the notification area. Three notifications are available:

*   Notification of Data Received

*   Notification of Data Processed

*   Notification of an Error Encountered

To control the feedback that you receive when in Automatic mode

1. In the Data Messenger Configuration window, click the **General** tab.

2. In the Automatic Mode section, check the **Always Start Data Messenger at Logon** box.

    Three checkboxes become available. In the default workflow, they are all checked.

3. On the General tab, in the Automatic Mode section, check any or all of the following boxes depending on the type of feedback that you want to receive:

   • Notification of Data Received

   • Notification of Data Processed

   • Notification of an Error Encountered

4. If you want a sound to play when a notification occurs, check the box underneath the notification.

5. On the toolbar, click **Apply** to save the settings.

Feedback in Manual Process mode

When Data Messenger operates in the Manual Process mode, you can choose to display a confirmation message when you delete a case asking you to confirm the deletion. In the default workflow, this option is selected.

To receive confirmation messages when deleting cases

1. On the General tab, in the Manual mode section, check the **Display a Confirmation Message When Manually Removing a Case** box.

2. On the toolbar, click **Apply** to save the settings.

For more information, see .

Modifying the workflow for case processing

Use the Case Workflow tab to choose the tasks that you want Data Messenger to perform when processing a case. You can select the following actions:

• Export case data to save as a file.

• Print case report on the default printer.

• Email case data to the preconfigured email address as an attachment.

• Forward case data to Philips HeartStart Event Review Pro.

• Erase source data from the defibrillator or its data source, either a data card or the *Bluetooth* folder.

• Back up processed case files on the Data Messenger computer.

Data Messenger can transfer patient event summaries to a folder, Event Review Pro, or a third-party application. Cases can be exported in either of the following formats:

- .mic – designates a file for use in Philips software products. A .mic file contains device data supplemented with patient data. It is intended for review within Data Messenger or software products such as HeartStart Event Review Pro after a medical emergency.

- .hic – designates a file for use in a third-party application. A .hic file contains device data and reference ID information.

To export cases to a folder

1. In the Data Messenger Configuration window, click the **Case Workflow** tab.

2. Check the **Export Case Data to a Folder** box.

3. Do one of the following:

   - In Folder Path, type the path for the folder.
   - Click **Browse** to navigate to the folder. In the Browse for Folder window, click the location and click **OK**.

4. In Export Format, check the **.mic** or the **.hic** box.

5. On the toolbar, click **Apply**.

To forward cases to HeartStart Event Review Pro

1. Check the **Forward Case Data to HeartStart Event Review Pro** box.

2. In URL, type the URL address for HeartStart Event Review Pro.

3. Click the **Verify** button to test that the URL is correct and accessible.

4. In Number of Retries, type the number of times that Data Messenger will attempt to forward the cases in the event of a failed transfer. The default is three attempts.

5. In Interval, type the number of minutes between each retry. The default is 60-minute intervals.

6. On the toolbar, click **Apply**.

To set up a backup folder for cases

1. Click **Back Up Processed Case Files**.

2. Do one of the following:

- In Folder Path, type the path for the folder location. The default folder is: C:\Document and Settings\Administrator\My Documents
- Click **Browse** to navigate to the folder location. In the Browse for Folder window, click the location and click **OK**.

Using reports

Use the Report tab to choose the type of report that Data Messenger automatically sends to the printer or an email address. Report options include:

Full Disclosure report - includes the entire incident, including all the events recorded on the ECG. In the default workflow, Data Messenger generates the Full Disclosure report.

Pre- and Post-shock report - documents just the key ECG waveform segments and their associated events. The report displays the presenting rhythm, closing rhythm, and the ECG before and after each shock delivered. You can set the length of the presenting rhythm and the time bracketing the shock events on the Data Messenger Configuration window.

Your printer must be a Postscript-compatible printer on the same network as the computer that runs Data Messenger. The printer must also be configured on your computer as the default printer.

To specify the report to print or email

1. In the Data Messenger Configuration window, click the **Case Workflow** tab.
2. Check the **Print Case Report** box.
3. Click the **Report** tab.
4. Do one of the following:
   - Check the **Full Disclosure Report** box.
   - Check the **Pre- and Post-Shock Report** box.
5. On the toolbar, click **Apply**.

If you checked Pre- and Post-Shock Report, type the number of seconds to display for the following segments in the report:

- Presenting Seconds—waveforms at beginning of ECG waveform
- Closing Seconds—waveforms at the end of the ECG waveform
- Pre-Shock Seconds—time before each shock administered

- Post-Shock Seconds—time after each shock administered

Setting up the email case data feature

Use the Email tab to choose how you will send cases to a specified email address.

> You can assign a password to an attached case. Make sure to communicate the password to your intended recipient.

To set up the email case data feature

1. In the Data Messenger Configuration window, click the **Case Workflow** tab.

2. Check the **Email Case Data** box.

3. Click the **Email** tab.

4. In the Email template area, type the email address, and then click the plus button to add the address.

5. In Cc, type the email address, and then click the plus button to add the address.

6. To remove an email address, click the address and then click the minus button.

7. Complete the subject and body.

8. In the Attachment Format area, click any or all of the file formats to email.

9. Check the **Password Protection** box if needed and type a password in Password To Use.

10. On the toolbar, click **Apply**.

Specifying inboxes for HeartStart MRx data

> The HeartStart MRx configuration functions that follow are only for advanced users.

An inbox is a location where Data Messenger retrieves HeartStart MRx data when the defibrillator uses the *Bluetooth* and batch LAN data transfer FTP methods.

Use the Advanced Inboxes tab to specify this location. Data Messenger monitors the inbox locations for event summaries, 12-lead reports, and periodic clinical data.

In the default workflow, Data Messenger does not have an inbox location configured

To clean up incomplete transmission check the Clean Up Incomplete Transmission box.

Setting up a Bluetooth inbox for the HeartStart MRx

To transfer data from a defibrillator to Data Messenger, you must first install the *Bluetooth* hardware and software. The *Bluetooth* stack that comes with the hardware includes drivers that define an inbox location where files are transferred.

> The *Bluetooth* stack needs to support the *Bluetooth* FTP server profile so that HeartStart MRx can send files to the server.

To set up the Bluetooth inbox

1. In the Data Messenger Configuration window, click the **Advanced Inboxes** tab.

2. In the *Bluetooth* section, do one of the following:

   - In Folder path, type the path of the *Bluetooth* Exchange Folder.
   - Click **Browse** to navigate to the *Bluetooth* Exchange Folder. In the Browse for Folder window, click the location and click **OK**.

3. On the toolbar, click **Apply**.

Setting up batch LAN data transfer for the HeartStart MRx

The HeartStart MRx device can transfer event summaries across a LAN to a computer that runs Data Messenger.

To transfer event summaries to Data Messenger, your computer must have the FTP Server software installed. Your IT department can install the Windows FTP Server profile, which can be found in the Windows Installation CD. Alternatively, you can use a third-party FTP server.

When a HeartStart MRx connects to the network, it initiates an IP address request from the network. The IP address is needed to send files to the computer that is running Data Messenger. During the batch LAN data transfer process, HeartStart MRx queries the local subnet for the computer.

To set up an inbox folder location for batch LAN data transfer

1. In the Data Messenger Configuration Window, click the **Advanced Inboxes** tab.

2. In the Batch LAN Data Transfer FTP section, do one of the following:

   • In Local Folder Path, type the path for the FTP inbox folder.
   • Click **Browse** to navigate to the FTP inbox folder. On the Browse for Folder window, click the location and click **OK**.

3. In FTP Address, type the IP address or name of the FTP server.

4. In Port, type the number of the port. The default port number is 21.

5. In User Name, type the user name with read/write access to the FTP server.

6. In Password, type the password for the user.

7. In Base directory, type the directory where HeartStart MRx transfers the files on the FTP server. You typed the same directory in the Local Folder Path. The default entry is a forward slash (/).

8. Click **Verify** to test that the FTP connection is correct and accessible.

9. On the toolbar, click **Apply**.

Cleaning up incomplete transmissions

When the HeartStart MRx retransmits files, it leaves the transmitted files from the failed transmission in the folder that you specify on the Advanced Inbox tab on the screen. Over time, incomplete transmissions can accumulate and take up considerable space.

Checking the Clean Up Incomplete Transmissions box at the bottom of the Advanced Inboxes tab enables Data Messenger to clean up these files. You can specify the number of days to wait before cleaning up an incomplete transmission and choose a folder to back up these files.

To clean up the incomplete transmissions folder

1. In the Data Messenger Configuration window, click the Advanced Inboxes tab.

2. At the bottom of the window, check the **Clean Up Incomplete Transmission** box.

3. In Days, type the number of days to wait before cleaning up incomplete transmissions.

4. If you want to back up the incomplete transmissions, check the **Back Up Incomplete Transmissions** box.

Specifying advanced workflow for the HeartStart MRx

Use the Advanced Workflow tab to choose settings for the following actions:

• Forwarding 12-lead reports and periodic clinical data from the HeartStart MRx to HeartStart Telemedicine

• Erasing source data

• Backing up transmissions that failed to process

In the default workflow, Data Messenger selects the Erase Source Data option.

To forward 12-lead reports or periodic clinical data to HeartStart Telemedicine

1. In the Data Messenger Configuration window, click the **Advanced Workflow** tab.

2. Check the **Forward to Philips HeartStart Telemedicine System** box.

3. In the URL field, type the URL address for HeartStart Telemedicine.

4. Click **Verify** to test that the URL information is correct.

5. In Number of Retries, type the number of times that Data Messenger will attempt to transfer the 12-lead report or periodic clinical data. The default is three attempts.

6. In Interval, type the number of minutes between each attempt. The default is 60 minutes.

HeartStart Telemedicine does not require a HTTP username and password for the data it receives from Data Messenger. It accepts anonymous transmissions.

To erase source data from Data Messenger and its data source

Check the **Erase Source Data** box.

To set up a backup folder for failed transmissions

1. Check the **Back Up Failed Transmissions** box.

2. Do one of the following:

   • In Folder Path, type the path for the folder location.
   • Click **Browse** to navigate to the folder location. In the Browse for Folder window, click the location and click **OK**.

To save the settings

On the toolbar, click **Apply**.

Managing configurations in Data Messenger

Data Messenger provides toolbar buttons to manage configurations. You can save, export, and import configurations. This is useful when you want to configure multiple instances of Data Messenger in the same way throughout your organization.

Once you apply a configuration, you can export that configuration for use as a backup copy or on other Data Messenger installations.

Before using Data Messenger to manage actual cases, test the Data Messenger configuration. An incorrect configuration may result in delay of data transfer. For resources, see Implementation references on page 109.

Saving configurations

The Data Messenger toolbar appears at the top of the Data Messenger Configuration window, above the tabs.

To save Data Messenger configurations

1. On the Data Messenger Configuration window toolbar, click the

   Apply ☑ button.

   Data Messenger displays a message when the configuration is saved.

2. Click **OK**.

3. In the Data Messenger Configuration window, click the **Close** ✕ button to start using the configuration.

Importing configurations

The Data Messenger toolbar appears at the top of the Configuration window, above the tabs.

To import Data Messenger configurations

1. In the Configuration window, on the toolbar, click the **Import** 📂 button to load the configuration.

   The Open window appears.

2. Navigate to the folder that contains the configuration file.

3. Do one of the following:

   • Double-click the configuration file.
   • In File Name, type the name of the configuration file, and then click **Open**.

4. On the Data Messenger Configuration window toolbar, click the

   Apply ☑ button.

   Data Messenger displays a message when the configuration is saved.

5. Click **OK**.

6. In the Data Messenger Configuration window, click the **Close** ☒
    button to start using the configuration.

Exporting configurations

The Data Messenger toolbar appears at the top of the Data Messenger Configuration window, above the tabs.

To export Data Messenger configurations

1. In the Data Messenger Configuration window, on the toolbar, click
    the **Export** 🗗 button to save the new configuration to a file.

    Data Messenger displays the Save As window.

2. Navigate to the folder where you want to store the configuration file.

3. In File Name, type the name of the configuration file.

4. Click **Save**.

    Data Messenger saves the configuration file.

Processing cases manually

When you transfer data from a defibrillator, data card, or USB drive to Data Messenger, the patient event-summary data displays on the Cases list on the Data Messenger Manual Process window.

After Data Messenger receives the patient summary data, the data is known as a case. You can then use Data Messenger to process the cases. The term "processing cases" refers to editing, saving, and generating reports, and forwarding cases.

This section describes in more detail the tasks you can perform when processing cases in Manual Process mode.

Using the Data Messenger Manual Process window

The Data Messenger Manual Process window includes a toolbar, the Cases tab, and the System Log tab. Click the Maximize button to display the window in full screen.

Use the toolbar buttons to manage one or more cases, manually process the case, and use the online Help.

Use the Cases tab to edit case identification information and process the selected case according to the workflow that you configured. A case includes all the information relating to a specific patient cardiac emergency. This includes information recorded by the supported defibrillators as well as information entered by a user.

Use the System Log tab to view a running log of system activities.

You can change how the data displays in each tab. For more information, see .

The following illustration describes the Data Messenger Manual Process window.
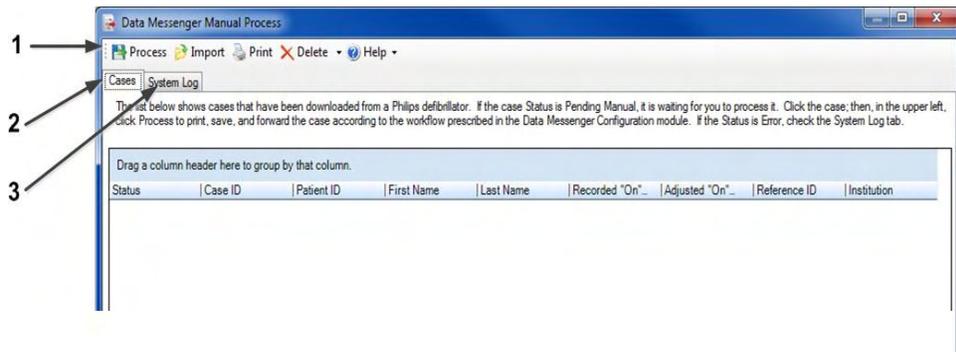
Number	Description
1	The toolbar displays buttons for actions that you can complete manually.
2	The Cases tab lists the data that you can use in the Manual Process mode.
3	The System Log tab displays System Log messages associated with case processing.

Data Messenger interrupts the automatic processing of cases until you close the Data Messenger Manual Process window.

Opening the Data Messenger Manual Process window

You can open the Data Messenger Manual Process window from the Start menu or the notification area on the Windows task bar.

To open the Data Messenger Manual Process window from the Start menu

1. On the Windows Start menu, click **All Programs**.

2. Click **Philips HeartStart Data Messenger 4.3**.

3. Click **Data Messenger Manual Process**.

   Data Messenger displays the Data Messenger Manual Process window.

To open the Data Messenger Manual Process window when in the Automatic mode

1. In the notification area on the Windows task bar, right-click the Data

Messenger ![icon] icon.

2. Click **Manual Process**.

   Data Messenger displays the Data Messenger Manual Process window.

When you close the Manual Process window, the system resumes operating in the Automatic mode.

Closing the Data Messenger Manual Process window

Whenever you close Manual Process mode, you are asked how to handle unprocessed cases on the Cases tab.

> Once the case appears in the Manual Process window, the only way it can be processed is manually. Even if you return to Automatic mode, these cases will not automatically process.

To close the Data Messenger Manual Process window

1. Click the Close ![X] button.

   A message appears asking if you want to process cases that are pending manual processing.

2. Do one of the following:

   - Click **Yes** to process all the cases and close the window. The Data Messenger application closes.
   - Click **No** to keep the cases on the Cases tab and close the window. You can process the cases manually later.

- Click **Cancel** to return to the Cases tab.

Receiving cases

Depending on the defibrillator, you can receive data through an infrared transmission, *Bluetooth* transmission, Ethernet cable, data card, or USB drive.

To receive data, you typically put the defibrillator into administration or data management mode, unless you are transferring data manually on a data card or USB drive. The methods vary by defibrillator. For more information, see Working with defibrillators on page 65 and your defibrillator documentation.

Once you establish a connection between the defibrillator and Data Messenger, the software displays all the cases on the defibrillator or its data source on the Cases tab. When the cases are initially loading, a message appears asking you to wait for the cases to load. This message disappears after all the cases are loaded.

Viewing cases

Use the Cases tab to view cases that Data Messenger receives from supported defibrillators or case files that you import (open) in Data Messenger. The total number of cases and the number selected display at the bottom of the cases list.

Depending on your workflow, you can also use the Cases tab to print case reports and email, forward, and export (save) cases. You can also delete selected cases from Data Messenger or its data source (the defibrillator, data card, USB drive, or *Bluetooth* folder).

> ⚠️ When you delete data, you cannot restore or recover the data from the computer or defibrillator. To prevent data loss, ensure that your configuration is set to back up files. For information about backing up processed case files, see Modifying the workflow for case processing on page 37.

On the Cases tab, you can customize the way information appears on the Cases window. You can also change how columns display (Working with columns on page 61), and sort and group the list (Sorting entries in a column on page 62, Grouping entries on page 62).

Selecting cases

To work on cases, click a case row on the Cases tab. You can select more than one case at a time to complete the following tasks:

- View and print the default report for selected cases
- Process the selected cases according to the configured workflow

- Delete the selected cases from Data Messenger and its data source (the defibrillator, data card, USB drive, or *Bluetooth* folder)

To select one case

On the Cases tab, click the case.

To select more than one consecutive case

1. On the Cases tab, click the first case.

2. Press and hold SHIFT, and click the last case that you want to select.

To select one or more cases that are not next to each other

1. On the Cases tab, click the first case.

2. Press CTRL and click each additional case that you want to select.

Editing cases

On the Cases tab, you can edit the following information for each selected case:

Column heading	Description
Case ID	Identifies the patient event-summary file. Maximum length is 25 characters.
Patient ID	Identifies the patient. Maximum length is 100 characters.
First Name	Patient's first name. The first name appears in the case and prints in report headers. Maximum length is 50 characters.
Last Name	Patient's last name. The last name appears in the case and prints in report headers. Maximum length is 50 characters.
Adjusted "On" Time	Adjusts the data date and time based on the clock of the Data Messenger computer. If the defibrillator clock was not synchronized, you can adjust the time here. This does not change the defibrillator.

Column heading	Description
Case Date and Time	Date and time that Data Messenger receives the case.
Reference ID	Identifies the case using a meaningful naming convention. For example, Engine 3 or Smithtown High School Gym. Maximum length is 100 characters.
Institution	Identifies organization or system where a case originates. For example, Johnstown Fire Department or Smithtown School District. Maximum length is 100 characters.

If Data Messenger receives a case from HeartStart MRx that includes patient ID, first and last name, reference ID, and institution, this information appears on the Cases tab.

If a defibrillator does not provide the above information, Data Messenger uses the information entered under the Default Case Identifiers section on the General tab of the Data Messenger Configuration window. For more information, see Adding default case identifiers on page 34.

You can edit this information on the Cases tab of the Data Messenger Manual Process window.

To edit case information

1. On the Cases tab, identify the case to edit.

2. Double-click the field to type or edit the information in the drop-down field.

Viewing and printing a case report

Use the Print button on the toolbar to view and print the Full Disclosure report.

This report includes the entire incident, including the events recorded.

The continuous ECG is intended only for basic rhythm identification. It is not intended for diagnostic and ST-segment interpretation.

To print the report

1. In the Data Messenger Manual Process window, click the case that you want to print.

2. On the toolbar, click the **Print** button.

   Data Messenger displays a preview of the report.

3. To print the report, use one of the following Report Preview toolbar buttons:

   - Click **Print** to print the report on the printer of your choice.
   - Click **Quick Print** to print the report on your default printer.

Opening saved cases

On the Data Messenger Manual Process window toolbar, use the Import button to open a saved case that has the .mic or .hic extension.

A .mic file contains patient and device data. It is intended for review in Data Messenger or for importing into Event Review Pro as a case. A .hic file contains device data and reference ID data. It is intended for transfer to a third-party application.

If you import (open) a case with the .mic extension from HeartStart Event Review Pro, Data Messenger imports only defibrillator data. It does not import patient information. If you then import the case back into HeartStart Event Review Pro, the file is processed as a new case.

If you import a case with the .mic extension from a previous version of Data Messenger, all the information is imported into the current version.

To import a case

1. On the Data Messenger Manual Process window toolbar, click the **Import** button.

   The Data Messenger Manual Import window appears.

2. Navigate to the folder location containing the file.

3. Click the button above the Open button to choose the type of file to import.

4. Click the file to import.

   The filename appears in the File Name field.

5. Click **Open**.

If a .mic file is password-protected, a message appears requesting the password. Type the password and click **OK**. The case is listed on the Cases tab.

Processing cases

The way a case is processed (such as printing, forwarding, forwarding, and emailing) is determined by how the workflow is configured. For information about setting up workflow, see Modifying the workflow for case processing on page 37.

Use the Process button on the toolbar to process the cases that you select on the Cases tab. The Process function prepares and forwards the case by completing the configured workflow actions.

To process cases

1. In the Data Messenger Manual Process window, click the case to process. For more information, see Selecting cases on page 50.

2. On the toolbar, click the **Process** button.

Data Messenger processes the selected cases, changes the status on the Cases tab, and removes the row from the Cases window if the processing is successful. Data Messenger also lists the actions on the System Log tab.

> If Data Messenger is in Automatic mode when you open the Data Messenger Manual Process window, automatic processing of data stops until you close the window. Data that is received while in Manual Process mode remains in the Manual Process mode. When you close the Manual Process window, Data Messenger resumes automatic processing.

Deleting cases from Data Messenger

Use the Delete button on the toolbar to delete data that is already downloaded, or data that you do not want to process.

> When you delete data, you cannot restore or recover the data from the computer or defibrillator.

To delete cases from Data Messenger

1. In the Data Messenger Manual Process window, click the cases to delete.

2. Do one of the following:

   • On the toolbar, click **Delete** to delete cases from the window list and the device source.

   • On the toolbar, click the down arrow on the **Delete** button, and then click **From List Only** to delete cases only from the window list.

   • On the toolbar, click the down arrow on the **Delete** button, and then click **From List and Source** to delete cases from the window list and the device source.

     A message appears asking you to confirm the deletion. Data Messenger removes the case from the list on the Cases window and lists the actions on the System Log tab.

Deleting cases from defibrillators or their data sources

Data Messenger processes all event-summary data for the associated defibrillator before deleting the data on the defibrillator or its data source (except for the HeartStart FR3 using *Bluetooth* and any infrared-enabled defibrillators).

Data Messenger can delete the data from the following sources:

• HeartStart HS1, FRx, and FR3 defibrillators

• Data cards that are connected to the Data Messenger computer

• The *Bluetooth* inbox on the Data Messenger computer

• Source data in the FTP folder

Procedures for deleting data from your defibrillator or other data sources vary by defibrillator model. For more information, see:

• Deleting cases from HeartStart FRx or HeartStart HS1 defibrillators on page 76.

• Transferring FR3 data to Data Messenger using Bluetooth wireless technology on page 68

• Transferring FR3 data to Data Messenger using data cards on page 70.

6

Processing cases automatically

When you first install Data Messenger, it runs in Automatic mode using the default workflow settings.

The settings you configure on the Data Messenger Configuration window determine how Data Messenger will process cases. Processing can consist of editing, printing, forwarding, and saving cases.

This section introduces the Automatic mode and describes how Data Messenger manages cases without your intervention.

Using the Automatic mode

Data Messenger is configured by default to run in Automatic mode the first time you install. You can set the Automatic mode or Manual Process mode on the General tab of the Data Messenger Configuration screen.

In automatic mode, Data Messenger does the following:

- Notifies you when it receives and processes patient data, and when it encounters an error.

- Generates and prints the Full Disclosure case report.

- Erases case data from the defibrillator or its data source (either a data card or the *Bluetooth* folder).

- Stores a log file for a default period of 7 days.

- Stores backup data in a default location indefinitely, until you delete it.

You can customize your workflow settings at any time. For more information, see Configuring HeartStart Data Messenger on page 28.

If Data Messenger is running in Manual Process mode, you can configure it to run in Automatic mode to process cases. For more information, see Configuring Data Messenger to process cases in the Automatic mode on page 33.

To start running the Automatic mode

Log on to the computer.

Data Messenger starts running in the background, managing cases according to the selected workflow. The Data Messenger icon appears in the notification area, in the lower right corner of your monitor. This icon appears only when you are in the Automatic mode.

To exit Data Messenger when running in the Automatic mode

In the notification area, right-click the Data Messenger icon to open the menu, and click **Exit**.

Using the Data Messenger icon in the notification area

When you are in the Automatic mode, the Data Messenger icon appears in the notification area of the Windows taskbar, at the bottom right of your monitor.

Right-click the Data Messenger icon to open a menu with the selections Manual Process (1), Configuration (2), and Exit (3).
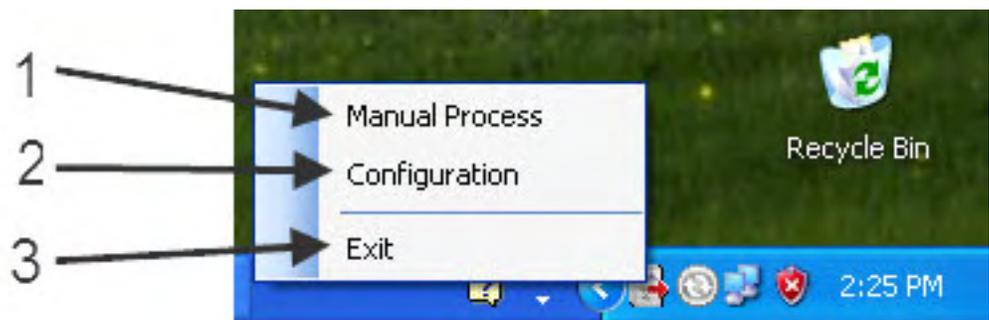
Data Messenger processes cases automatically until you exit Data Messenger, log off the computer, change the logon for the computer, open the Manual Process mode, or turn off the computer.

When Data Messenger is configured to display feedback messages, they appear in the notification area. See Controlling feedback messages on page 36.

While your system is in the Automatic mode, you can switch temporarily to Manual Process mode by opening the Manual Process window. For more information, see Using the Data Messenger Manual Process window on page 47. When you close the Manual Process window, the system resumes operating in the Automatic mode.

To open the Data Messenger Manual Process window while operating in the Automatic mode

Do one of the following:

- On the Windows Start menu, click **Data Messenger Manual Process**.

- In the notification area, right-click the Data Messenger icon and click **Manual Process**.

To open the Data Messenger Configuration window while operating in the Automatic mode

Do one of the following:

- On the Windows Start menu, click **Data Messenger Configuration**.

- In the notification area, right-click the Data Messenger icon and click **Configuration**.

When you open the Data Messenger Configuration window with Data Messenger in the Automatic mode, processing of incoming data is interrupted until you close the Configuration window. If Data Messenger is processing a case when you open the Configuration window, it might not complete the workflow.

To close the Data Messenger Configuration window while operating in the Automatic mode

In the Data Messenger Configuration window, click the Close button.

Data Messenger closes the window and resumes processing of the

patient data automatically. The Data Messenger ![icon] icon appears in the notification area.

Using the Notifications window

When Data Messenger is running in Automatic mode, you can choose to apply preconfigured actions to received data. Choose these actions on the General tab at the top of the Data Messenger Configuration window. Actions for the received data include:

- Notification of data received

- Notification of data processed

- Notification of error encountered

When any of the above data events occur, the Notification window appears at the bottom right of your screen. The window lists the most recent 1,000 messages and fades out after seven seconds if Data Messenger does not receive any new messages.

To use the Notification window

Do any of the following:

- Click once in the window to prevent the window from fading out after seven seconds.

- Click on the scroll bar and move it up and down to view messages.

- Double-click any message to start Manual Process mode and display the System Log tab in the Data Messenger Manual Process window.

Working with the System Log

You can view the System Log to see a list of all the Data Messenger activity. Use the System Log to monitor system activity and to troubleshoot the processing of patient data.

When working with the System Log, you can customize the way information displays in the list of entries. You can change how columns display, and sort and group the list of entries.

This section provides an overview of how to use the System Log in Data Messenger.

> Data Messenger automatically clears System Log messages after a certain number of days, based on the setting you chose on the General tab on the Data Messenger Configuration window. For more information, see Storing System Log messages and backup files on page 35.

Activities logged by Data Messenger

The System Log lists Data Messenger activity and displays it on the Data Messenger Manuel Process window.

For each action, Data Messenger logs the following information:

- Type of message—for example, Information or Error
- Action that occurred—for example, a feature stopped operating
- Description of the action
- Date and time when the action occurred

If the text for the description of the action does not fully display in the column, hover the mouse over the description text. Data Messenger displays the text in a pop-up window. You can also change the width of the column.

To help you monitor specific information, you can change how the information appears on the System Log. For example, you can move columns with important information to the beginning of the table, and then group the information columns based on that column.

When you change the default layout of the System Log, Data Messenger displays the new layout the next time you use the System Log.

Displaying the System Log

To display the System Log

1. On the Start menu, click **Philips HeartStart Data Messenger 4.3**, and then click **Data Messenger Manual Process**.

   The Data Messenger Manual Process window appears.

2. Click the **System Log** tab.

For more information about monitoring system activities, see Monitoring system activities on page 23.

Working with columns

You can customize the columns that appear on the table.

To change a column width

Use the mouse to click and hold the column border, and then drag the border to the size you prefer.

To restore a column to its default width

Use the mouse to click the left border of a column, and then double-click the mouse.

To hide or display the columns on the table

1. Right-click anywhere within the grid to display a shortcut menu.

2. Check the box for each column that you want to hide or display on the table.

Column headers with a checkmark appear on the table.

To change the order in which columns appear

Use the mouse to click and hold the column header, and then drag the column to the left or right to a new location.

Sorting entries in a column

You can sort the rows of information in a column. Data Messenger displays a triangular symbol (arrow) in the column header to indicate the sort order.

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

Grouping entries

You can organize the rows into primary and secondary sorts. For example, you can select a primary sort based on the action and a secondary sort based on the description of the action.

Use the area above the entries to set up groups of entries. For example, drag the Action column header to the area above the columns, and then drag the Description column header below the Action header in the same area. Data Messenger gathers all the entries with the same action in one group.

To group entries

1. Click a column header and drag it to the grouping area with the notation Drag a Column Header Here to Group by that Column.

   The column name moves to the grouping area, forming the primary sort.

2. Repeat step 1 with other columns as necessary.

   Data Messenger creates the next group level, forming the secondary sorts.

To display entries in a group

Click Expand to the left of the group that you want to expand. An expanded group lists all the entries assigned to that group.

To hide entries in a group

Click Collapse to the left of the group that you want to collapse. A collapsed group displays the group title.

To undo grouping for a single column

Click a column header in the grouping area and drag it below the table header.

To undo grouping for all columns

1. Click a column header in the grouping area and drag it to the table header.

2. Repeat step 1 for each column.

Clearing System Log entries

Data Messenger retains the System Log entries for the number of days that is set on the General tab on the Data Messenger Configuration window. For more information, see Storing System Log messages and backup files on page 35

Troubleshooting system activities

You can also use the System Log to help troubleshoot the system activities. For a description of the system messages, see System Log messages on page 89.

If you need additional customer support, call or email customer support. For more information, see Customer support on page 110.

To email the System Log

1. Open either the Data Messenger Configuration window or the Data Messenger Manual Process window.

2. On the toolbar, click **Help**.

3. Click **Email Customer Support**.

    Data Messenger creates an email, addresses it to customer support, and attaches the System Log information. You can add additional information in the body of the email message.

4. Click **Send**.

Working with defibrillators

This section discusses how to download case data from the supported defibrillators.

HeartStart Data Messenger can download defibrillator case data through infrared, *Bluetooth*, Ethernet, or data-card access. Depending on the defibrillator, you might also need an infrared adapter, a card reader, a card adapter, or a *Bluetooth* adapter to read and download case data to Data Messenger.

Supported defibrillators

Use the information in this topic to download product and user service manuals from the Philips Web site, and to identify the method that a defibrillator uses to read data.

To download product user and service materials

- Click the following link and navigate to your AED or monitor defibrillator:
  http://www.healthcare.philips.com/main/support/ProductDocumentation/

- For HeartStart FR3, FRx, FR2, and HS1 defibrillators, you can also click the following link:
  http://www.healthcare.philips.com/main/products/resuscitation/products/aeds/online_resources.wpd

The method used to read and transfer defibrillator data varies by defibrillator model. Find your defibrillator in the following table.

Philips defibrillator model	Method used to read data
HeartStart FR3 defibrillator	Data-card access: Custom Philips SD data card with an SD data-card reader. *Bluetooth* connection.

Philips defibrillator model	Method used to read data
	See Transferring HeartStart FR3 data on page 66.
HeartStart FR2 defibrillator	Data-card access: CompactFlash data card with CompactFlash data-card reader. See Reading HeartStart FR2 data on page 71.
HeartStart FRx defibrillator	Infrared connection. See Downloading HeartStart FRx and HeartStart HS1 data on page 72.
HeartStart HS1 family of defibrillators: HeartStart Home and HeartStart OnSite defibrillators	Infrared connection. See Downloading HeartStart FRx and HeartStart HS1 data on page 72.
HeartStart MRx defibrillator	Data-card access: CompactFlash data card with CompactFlash data-card reader. *Bluetooth* connection: Defibrillators with version 9.0 or later with the Event Summary *Bluetooth* Transfer feature enabled. Defibrillators with version F.02 or later. Ethernet connection for defibrillators with version F.01 or later. See Working with HeartStart MRx data on page 76 and Prerequisites for using Bluetooth for HeartStart MRx on page 79.
HeartStart XL and XL+ defibrillators	Data-card access: ATA flash cards with the ATA flash-card reader. USB port (XL+ only) See Reading XL data on page 83.

Transferring HeartStart FR3 data

You can transfer HeartStart FR3 data wirelessly to your computer if the computer running Data Messenger is *Bluetooth* enabled and the FR3 defibrillator is *Bluetooth* enabled.

To determine if FR3 is Bluetooth enabled

On the FR3 defibrillator, select Administration mode, and then select Wireless Data Transfer. If Wireless Data Transfer does not appear in the menu, then it is not available. In that case, use a Philips secure digital (SD) card to transfer data.

> ⚠️ Operating multiple instances of Data Messenger with *Bluetooth* wireless technology for communication with your FR3 defibrillators with *Bluetooth* wireless technology in close proximity may potentially result in unintended pairing, case downloading, labeling, and destination routing. Data could fail to arrive at the intended destination. Use Data Messenger with *Bluetooth* wireless technology only when out of range of other Philips data management software running *Bluetooth* wireless technology.

> ℹ️ If you have HeartStart FR3 defibrillators equipped with *Bluetooth* wireless technology, and multiple instances of Data Messenger in close range running automatically, Philips recommends that you configure all instances of Data Messenger in the vicinity the same way, using with the same reference ID and institution. This way, no matter which instance is discovered, the FR3 and its patient data will be processed, labeled, and routed in the same way.

Preparing the FR3 to transfer data

Prepare the FR3 defibrillator to transfer case data by placing it in Administration mode.

To place the FR3 defibrillator to Administration mode

1. If the pads connector is present, unplug it.

2. Insert the FR3 battery into the defibrillator. For further instructions on installing the battery, see the *HeartStart FR3 Defibrillator instructions for administrators*. When the battery is inserted, the defibrillator sounds a beep, and the power light at the top is solid green.

3. Wait until the power light begins periodically flashing green.

4. Quickly press the green power button. The screen illuminates with an image of a patient. The voice prompt announces, "Plug in pads connectors."

5. Disregard the voice prompts in this instance. Do not plug in the pads connectors. The voice prompts stop once you place the defibrillator in Administration mode.

6. Press the green power button again. The message "Shutting Down," appears with a progress bar, and "Administration" appears on the lower left corner of the screen, above the three soft keys.

> Selecting Administration mode interrupts the shutdown process. You have several seconds to select Administration mode before shutdown occurs.

7. To select Administration mode, press and release the left soft key under Administration on the screen. This action interrupts the shutdown process. The FR3 defibrillator enters Administration mode, and Administration now appears at the top of the screen.

> If you do not press a soft key while the FR3 defibrillator is in the Administration mode, or if no action occurs for ten minutes after performing a transfer using *Bluetooth* wireless technology, Administration mode times out. When Administration mode times out, the FR3 defibrillator enters Standby mode. A flashing green light above the green power button identifies the Standby mode.

To exit Standby mode

To exit Standby mode and return to Administration mode, resume the previous procedure at Step 3.

To exit Administration mode

To exit Administration mode, press the green power button. Wait 10 seconds for the FR3 defibrillator to shut down.

Transferring FR3 data to Data Messenger using Bluetooth wireless technology

If your computer and the FR3 defibrillator are *Bluetooth* enabled, prepare to transfer case data by placing the FR3 defibrillator in Administration mode.

The process of transferring case data from the FR3 defibrillator to Data Messenger is the same whether you are running Data Messenger in Automatic mode or Manual Process mode. However, handling of the case data after transfer varies, depending on your configuration of Data Messenger.

To transfer FR3 data to Data Messenger using Bluetooth wireless technology

1. Ensure that the computer with Data Messenger is on and that the Data Messenger application is running.

2. Place the FR3 defibrillator and the computer with Data Messenger within *Bluetooth* transmission range, usually within 30 feet (9 meters) of each other.

3. Put the FR3 defibrillator into Administration mode. For more information, see Preparing the FR3 to transfer data on page 67.

4. With the FR3 in Administration mode, press the left option button to scroll through the menu options until Wireless Data Transfer appears highlighted on the defibrillator screen. Press the middle option button to select Wireless Data Transfer.

   The defibrillator screen displays the message "Ready for Data Transfer," indicating that the FR3 defibrillator is sending a *Bluetooth* signal. When Data Messenger with *Bluetooth* wireless technology detects the FR3 *Bluetooth* signal, case data transfer begins. All cases are transferred from the FR3 defibrillator to Data Messenger.

5. If you have selected Erase Source Data on the Case Workflow tab, then as soon as all cases have been transferred from the FR3 defibrillator, Data Messenger deletes all cases from the defibrillator and synchronizes the time on the defibrillator clock with the time on the computer clock. This is true for both Manual Process and Automatic mode.

To exit Wireless Data Transfer mode

When you are finished transferring data from the FR3 defibrillator, turn off Wireless Data Transfer mode by pressing the middle option button. The FR3 defibrillator screen returns to Administration mode.

The point in your workflow where all cases are deleted from the FR3 defibrillator may differ if you are using a customized configuration of Data Messenger.

Transferring FR3 data to Data Messenger using data cards

You can download detailed incident data directly from the Philips secure digital (SD) data card in the FR3 defibrillator to a computer with Data Messenger software. The computer can read a Philips SD data card with an internal or external SD card reader.

This process is the same whether you are running Data Messenger in the Automatic mode or the Manual Process mode.

To remove the data card from the FR3 defibrillator

1. Remove the battery from the FR3 defibrillator to expose the data card. For further instructions on removing the battery, see the *HeartStart FR3 defibrillator instructions for administrators*.

2. Pull the data card by its tab to remove it from the FR3 defibrillator, as illustrated below.
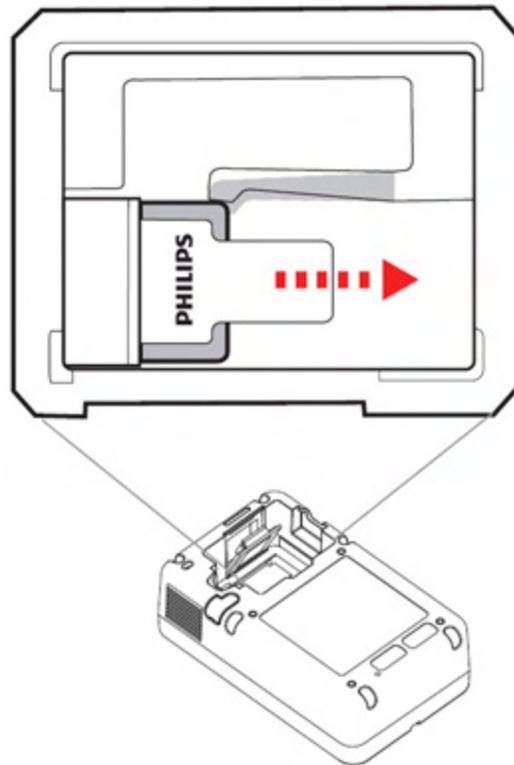
To transfer FR3 data from the data card to Data Messenger

1. Ensure that the computer with Data Messenger is on and that the Data Messenger application is running.

2. On the computer with Data Messenger software, place the FR3 data card into the card reader. When inserting the data card, orient the card with the label facing up, and the tab toward you. Windows detects the data card and begins transferring data. All data is transferred from the FR3 defibrillator to Data Messenger.

3. If you chose the default workflow settings in Data Messenger Automatic mode, then as soon as all cases have been transferred from the FR3 defibrillator, Data Messenger deletes all cases from the defibrillator and synchronizes the time on the defibrillator clock with the time on the computer clock.

⚠ Before removing the data card from the adapter or card reader, ensure that data transfer is complete. Premature removal of a data card can cause a data error.

Reading HeartStart FR2 data

The HeartStart FR2 series defibrillator stores patient event-summary data on a CompactFlash card.

CompactFlash card readers are available through your Philips sales representative or local distributor.

⚠ Before removing the data card from the card reader, ensure that data transfer is completed. Premature removal of a data card can cause a data error.

To read a data card

1. Remove the data card from the HeartStart FR2 series defibrillator.

2. One end of the data card has a series of perforations. Insert the card by this end firmly into the card reader.

3. Check in Windows Explorer to see that the card was recognized. When Windows recognizes the card, it assigns a drive letter to the card.

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A HeartStart FR2 c ard being inserted into a Kingston card reader

Downloading HeartStart FRx and HeartStart HS1 data

The HeartStart FRx and HeartStart HS1 defibrillators use an infrared (IrDA) communications port to transfer information.

The infrared port is located on the lower right side of the defibrillator.

To transfer information, the receiving computer must be set up for infrared communication. Some computers might have infrared ports. If the computer does not have an infrared port or the port does not work with the defibrillator, you can add an infrared adapter.

An infrared adapter that connects to a USB port is the recommended adapter.

Setting up an infrared adapter

You can use most infrared adapters to transfer data between a computer running Data Messenger and a defibrillator that uses the infrared transfer method.

For best results, plug the hardware adapter into the USB port and use the device driver supplied with the adapter.

Data Messenger recognizes when an infrared adapter is plugged into the computer and is available. A Windows notification indicates that data can be transferred by infrared connection. You do not have to perform any additional steps. If you have to run the driver setup program, then install the CD-ROM that came with your infrared adapter and use your computer's New Hardware Wizard to guide you through setting up the adapter.

An infrared adapter is available from Philips.

To set up the infrared adapter

1. Read the setup instructions for the driver that is used by the infrared adapter.

2. Run the driver setup program on the Windows operating system.

3. Follow instructions as the New Hardware Wizard guides you through set up of the adapter.

Downloading HeartStart FRx data

Downloading patient event-summary data from the HeartStart FRx defibrillator requires an infrared connection between HeartStart Data Messenger and the defibrillator.

To transfer information, you must put the defibrillator into the Administration mode.

If the HeartStart FRx does not receive a transmission within 3 minutes of starting the Administration mode, it cancels the Administration mode and you must start over.

> The Administration mode is active for 30 minutes after the last transfer is made.

To download HeartStart FRx patient data

1. Start Data Messenger.

2. Return to the defibrillator and remove the pads connector. The defibrillator voice message might tell you to plug in the pads connector so that it is ready for patient use. However, do not plug in the pads connector at this time.

3. Set up the defibrillator to communicate with the computer. Make sure that the defibrillator infrared port and the computer infrared port face each other, are within 6 to 18 inches (16 to 45 cm) of each other, and have a clear and level path between them.

4. Turn on the defibrillator power.

5. On the defibrillator, press and hold the blue i-button until you hear three tones. (The defibrillator sounds a tone once in about two seconds after pressing the blue i-button. In about two more seconds, it sounds a tone two more times.)

6. Release the blue i-button. The defibrillator voice message announces "Administration."

7. Return to the Data Messenger computer and align the defibrillator's infrared port with the infrared port on the computer. You can now send and receive information between the defibrillator and the computer. HeartStart FRx announces "Transferring data." Be sure to wait until the transmission is complete before you move the defibrillator from the computer infrared port.

8. When sending and receiving information is complete, remember to exit the Administration mode:

    a. Place the defibrillator in Standby Mode by pressing the on-off button.

    b. Insert the pads connector. This ensures that the defibrillator is ready for use on the next patient. For more information, refer to the *HeartStart FRx defibrillator owner's manual*.

Downloading HeartStart HS1 data

Downloading patient event-summary data from the HeartStart HS1 defibrillator requires an infrared connection between Data Messenger and the defibrillator.

If the HeartStart HS1 does not receive a transmission within 30 seconds of starting the Administration mode, you must place the defibrillator back in Administration mode.

The Administration mode is active for 30 minutes after the last transfer is made.

To download HeartStart HS1 defibrillator patient data

1. Start Data Messenger.

2. Return to the defibrillator and make sure that there is a battery in the defibrillator.

3. Locate the latch at the top edge of the HeartStart HS1 and slide it to the side. The HeartStart HS1 releases the pads cartridge.

4. Remove the pads cartridge. The defibrillator voice message might tell you to insert the pads cartridge so this is ready for patient use. However, do not insert the pads cartridge at this time.

5. Set up the defibrillator to communicate with the computer. Make sure that the defibrillator infrared port and the computer infrared port face each other, are within 6 to 18 inches (16 to 45 cm) of each other, and have a clear and level path between them.

6. Turn on the defibrillator power.

7. On the defibrillator, press and hold the blue i-button until you hear three tones. (The defibrillator sounds a tone once in about two seconds after pressing the button. In about two more seconds, it sounds a tone two more times.)

8. Release the button after the third tone. The defibrillator voice message announces "Administration."

9. Press the blue i-button again for less than one second. The defibrillator voice message announces "Mode 1".

10. Return to the Data Messenger computer and align the defibrillator's infrared port with the infrared port on the computer. You can now send and receive information between the defibrillator and the computer. HeartStart HS1 announces that it is sending. Be sure to wait until the transmission is complete before you move the defibrillator from the computer infrared port.

11. When sending and receiving information is complete, remember to exit the Administration mode.

    a. Place the defibrillator in Standby Mode by pressing the on-off button.

    b. Insert the pads cartridge.

    This ensures that the defibrillator is ready for use on the next patient.

For more information, refer to the instructions for use provided with the defibrillator.

Determining the case date and time

The HeartStart FRx and HeartStart HS1 family of defibrillators do not have a real-time clock that maintains the defibrillator date and time. Instead, the defibrillator has a continuously running timer that starts when you insert the battery. When responders use the defibrillator, all events and data are stamped with this running timer. When you remove the battery, the timer resets and the defibrillator keeps the last-use ECG recordings for 30 days before it automatically erases the data to prepare for a future use.

Each time that Data Messenger communicates with a HeartStart FRx or HeartStart HS1 defibrillator, Data Messenger uses the date and time of the computer clock, and the date and time stamp of the defibrillator, to calculate the date and time of all events and data since the battery was last inserted.

⚠ To ensure that you can download the defibrillator information for the last clinical use, download the last-use ECG recordings to a computer that runs software such as Data Messenger. Download the information within 30 days of the recording and before you remove the battery.

Deleting cases from HeartStart FRx or HeartStart HS1 defibrillators

Follow this process to delete patient data from your HeartStart FRx or HS1 defibrillators.

1. Put the defibrillator in the Administration mode.

2. Set up infrared communication between your defibrillator and the computer.

3. Make sure that the defibrillator infrared port and the computer infrared port face each other, are 6 to 18 inches (16 to 45 cm) from each other, and have a clear and level path between them.

4. On the Cases tab, click the case that you want to delete from the defibrillator. For more information, see Selecting cases on page 50.

5. On the toolbar, click the **Delete** button. A message appears asking you to verify the deletion.

6. To delete the selected cases immediately, click **OK**. Data Messenger displays the action on the Systems Log tab.

Working with HeartStart MRx data

⚠ When using configurations involving Telemedicine, be sure to verify the URL for Telemedicine before working with actual cases. Incorrect connection information may result in delay of data transfer. See Specifying advanced workflow for the HeartStart MRx on page 43.

⚠ The HeartStart MRx defibrillator stores information in internal memory. To open the information in the Philips Data Management Solutions software, such as Data Messenger, you need to transfer the information from the internal memory to an external CompactFlash card.

Follow the instructions in the *HeartStart MRx monitor/defibrillator instructions for use guide*.

After you transfer the information to a CompactFlash card, you can read the card using an internal or external CompactFlash card reader.

CompactFlash card readers are available through your Philips sales representative or local distributor. For more information, see the *HeartStart MRx monitor/defibrillator instructions for use guide*.

⚠ Before removing the data card from the card reader, ensure that data transfer is completed. Premature removal of a data card can cause a data error.

To read a data card with a card reader

1. Remove the data card from the HeartStart MRx data-card tray.

2. One end of the data card has a series of perforations. This end goes into the adapter.

3. One end of the adapter has a similar series of perforations. Insert this end of the adapter firmly into the PC Card reader.

   Typically, the computer sounds an audio signal to indicate that the reader is active.

4. Check in Windows Explorer to see that the card is recognized. When Windows recognizes the card, it assigns a drive letter to the card.

5. If the card does not appear in Windows Explorer, remove the card from the card reader, and then insert it into the card reader again.

A HeartStart MRx card being inserted into an adapter

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A HeartStart MRx card being inserted into a Kingston card reader

Downloading HeartStart MRx data using Bluetooth

You can transmit HeartStart MRx data to Data Messenger through a *Bluetooth* wireless transmission.

The HeartStart MRx data can include event-summary, 12-lead reports, and periodic clinical data. Periodic clinical data can include 12-lead reports, trigger events and waveforms, and periodic vital trends.

HeartStart MRx data might contain information that could be considered Patient Healthcare Information (PHI) or patient-identifiable data. This information can be transferred from HeartStart MRx. Be sure to handle the information in accordance with HIPAA or your local patient privacy requirements.

Understanding Bluetooth for HeartStart MRx

To transfer the information from the HeartStart MRx defibrillator to Data Messenger, you must set up the *Bluetooth* transmission on the defibrillator and on the computer that has Data Messenger installed.

If the computer is not equipped with *Bluetooth*, it requires a *Bluetooth* adapter to receive data from the defibrillator. The adapter connects the computer that has Data Messenger installed and the defibrillator.

Each *Bluetooth* device from a different manufacturer has a unique set of features and configuration options. To ensure reliable transmissions, familiarize yourself with the *Bluetooth* configuration choices of each.

⚠️ Some configuration choices (either default or chosen by the user) could prevent receipt of data from the defibrillator. For example, it is recommended that you disable features such as "Start discovery every 10 minutes." Enabling this option could interfere with transmissions from HeartStart MRx.

When you install the *Bluetooth* software on the receiving computer, the process creates the *Bluetooth* configuration folder. This folder is based on the logon of the user who configured the *Bluetooth* wireless technology. For example, the folder for user1 is typically at the following location:

C:\Document and Settings\user1\My Documents\Bluetooth Exchange Folder

When the defibrillator transmits data to Data Messenger, the defibrillator creates subfolders on the computer to store the transmitted data.

Prerequisites for using Bluetooth for HeartStart MRx

The *Bluetooth* card on HeartStart MRx is inside of the defibrillator. Make sure that you purchased HeartStart MRx with the appropriate *Bluetooth* option or upgrade.

Confirm that you have a *Bluetooth* card installed and one or more of the *Bluetooth* options enabled—for example, the event-summary *Bluetooth* transmission feature.

See Selecting Bluetooth accessories on page 88.

For detailed information on setting up the HeartStart MRx defibrillator for *Bluetooth* transmission, refer to the most current release of the following documentation:

- *HeartStart MRx instructions for use*
- *HeartStart MRx instructions for use addendum*

Setting up Bluetooth for HeartStart MRx

The Data Messenger computer must support the FTP Server profile to receive files from the HeartStart MRx.

Setting up the *Bluetooth* software and adapter involves the following tasks:

- Installing the *Bluetooth* software and adapter
- Pairing the defibrillator *Bluetooth* option with the computer
- Testing the connection

While setting up the *Bluetooth* software and adapter, make sure that the defibrillator and the computer with the software installed are within *Bluetooth* transmission range, usually within 30 feet (9 meters) of each other. For more information, see the *HeartStart MRx instructions for use*.

To install the Bluetooth software and adapter

1. Read the instructions that came with the *Bluetooth* adapter.

2. Install the *Bluetooth* software and connect the adapter according to the instructions.

The *Bluetooth* configuration typically creates the folder based on the logon of the user who configured it. For example, if you have the administrator logon, the default folder location is typically: C:\Document and Settings\Administrator\My Documents\Bluetooth Exchange Folder. If the user who receives the wireless transmission is not the administrator, you can change the path to point to that user's *Bluetooth* exchange folder.

To specify the location of the Bluetooth Exchange Folder

Refer to your *Bluetooth* software and adapter documentation.

To pair the defibrillator Bluetooth option with the computer

Refer to your *Bluetooth* software and adapter documentation.

Pairing and testing the HeartStart MRx Bluetooth option

Before you use *Bluetooth* transmission with the MRx, you must pair and test them.

Make sure that the computer is turned on and that the *Bluetooth* software and adapter are installed and visible or discoverable.

To pair the HeartStart MRx Bluetooth option with the computer

1. On HeartStart MRx, place the defibrillator in the Data Management mode.

2. On the HeartStart MRx Main menu, scroll to Other and press the Enter button.

3. On the Other menu, scroll to *Bluetooth* Devices and press the Enter button.

4. On the *Bluetooth* Devices menu, select Add Device and press the Enter button.

   The defibrillator searches for your computer.

   If your computer is not listed after the search, your computer *Bluetooth* is not enabled or set up correctly. Refer to your *Bluetooth* documentation to troubleshoot the setup.

5. Select your computer and press the Enter button.

6. Enter a passkey for the *Bluetooth* option.

   The passkey is a user-defined character sequence, such as 000, or 1234.

7. Scroll to Done and press the Enter button.

8. On the computer, locate the notification area of the taskbar. Immediately watch for a pop-up message.

9. Click the pop-up message.

10. Enter the same *Bluetooth* passkey that you entered in Step 6.

11. On the *Bluetooth* Service menu, scroll to File Transfer and then press the Enter button. The message "Transmission Test Passed" appears.

12. On the Add Device menu, scroll to Exit and press the Enter button.

Sending HeartStart MRx Bluetooth transmissions

You can download a case from HeartStart MRx to the computer through a *Bluetooth* transmission.

Make sure that the application computer is turned on and that the *Bluetooth* software and adapter are installed.

To make a Bluetooth transmission

1. On the HeartStart MRx, place the defibrillator in the Data Management mode. If necessary, use the HeartStart MRx documents listed for Prerequisites for using Bluetooth for HeartStart MRx on page 79.

2. Press Next Item or Prev Item to navigate to the incident of your choice.

3. Scroll to Send.

4. Press Send.

5. Select the type of information that you want to transmit to Data Messenger and press Enter.

6. The first time you send a *Bluetooth* transmission, complete steps 7 and 8.

    In the notification area of the task bar, immediately watch for a pop-up message.

7. Click the pop-up message.

8. Check the Always Allow Authorization box.

    After HeartStart MRx transmits the incident to the computer, you can attach the ECG from HeartStart MRx in Data Messenger.

Downloading HeartStart MRx data using batch LAN data transfer

The batch LAN data-transfer option is available on HeartStart MRx defibrillators with software version F.01 or later. This feature automates and streamlines data management workflows, which helps you optimize patient care information for timely retrospective reviews. This is most commonly used at the end of a work shift when a medic wants to download all cases from HeartStart MRx for quality review.

To do this, connect HeartStart MRx to a LAN cable on the network when HeartStart Data Messenger runs on a local PC or the network. HeartStart MRx downloads the event summaries from the defibrillator, and it updates the internal clock with the local computer date and time.

It is also possible to use the batch LAN data-transfer option with HeartStart Data Messenger in the back of an ambulance, to transfer one or more cases.

Understanding the batch LAN data-transfer process

The following describes the process of transferring event summaries from the HeartStart MRx defibrillator to Data Messenger.

1. Connect HeartStart MRx to the Ethernet cable. HeartStart MRx queries the network for an IP address. The DHCP server acknowledges the request and assigns an IP address for HeartStart MRx.

2. HeartStart MRx searches for the computer that runs Data Messenger on the local subnet. HeartStart MRx detects Data Messenger.

3. HeartStart MRx sends the notification to Data Messenger. Data Messenger passes the FTP access information to HeartStart MRx.

4. HeartStart MRx sends event-summary data to the FTP server based on the access information. Data Messenger monitors the FTP server inbox and processes the received event summaries as a case, according to the configuration.

For more information, see the *HeartStart MRx monitor/defibrillator instructions for use* and the *Data Management solutions implementation guide*.

Prerequisites for using batch LAN data transfer

The following are prerequisites for the HeartStart MRx defibrillators with software version F.01 or later that have the batch LAN data-transfer option enabled:

- LAN Ethernet cable

- Network router that is connected to an IP address server (DHCP server)

- Computer with the following installed:

  - Data Messenger software
  - Windows FTP Server or third-party FTP Server

- Data Messenger operating

For each prerequisite, follow the instructions in the *HeartStart MRx monitor/defibrillator instructions for use*. Consult your IT department for help with this implementation.

Reading XL data

The HeartStart XL defibrillators store information on an ATA flash card. Read the documentation for the defibrillator to learn how to remove the card from the defibrillator.

You can read the ATA flash cards in an ATA flash-card reader or a PC card reader. If the computer is not equipped with an adapter, you can add one as an internal or external card reader. The external card reader plugs into the computer's USB port.

ⓘ   CompactFlash card readers are available through your Philips sales representative or local distributor.

⚠   Before removing the data card from the adapter or card reader, ensure that data transfer is complete. Premature removal of a data card can cause a data error.

To read a data card

1. Remove the data card from the defibrillator.

2. One end of the card has a series of perforations. This end goes into the card reader. Insert the card firmly into the card reader.

3. Check in Windows Explorer to see that the card was recognized. When Windows recognizes the card, it assigns a drive letter to it.

4. If the card does not appear in Windows Explorer, remove it from the card reader and insert it into the card reader again.

Transferring XL+ data

The HeartStart XL+ defibrillator uses a USB drive to transfer data. The USB drive connects to a USB port on the computer running Data Messenger.

You can export data from the XL+ defibrillator to the XL+ USB drive using a menu selection in the Data Management mode. Once the data is exported, you can transfer it to the computer running Data Messenger.

To export event-summary data from the XL+ defibrillator to the USB drive

1. Locate the USB data port on top of the XL+ defibrillator and insert the XL+ USB drive into it. For more information, see the *HeartStart XL+ instructions for use*.

2. Confirm that you are in Data Management mode.

3. Press the **Menu Select** button.

    The Internal Memory menu appears.

4. Use the navigation buttons to select the **Export All** option.

5. Press the **Menu Select** button to start the task.

   The data is exported to the USB drive.

Selecting accessories for data transfer

Before equipping your organization for data transfer, determine the defibrillators that you need.

Several HeartStart defibrillators use an infrared connection to transfer the information to Data Messenger. You need an infrared adapter to read and transfer this information to Data Messenger.

Most of the HeartStart defibrillators that Data Messenger supports store data on data cards. Each defibrillator uses a specific type of data card. Select a compatible card reader or adapter to read and transfer this information to Data Messenger.

Selecting data-transfer adapters and readers

If your computer did not come installed with the appropriate software or adapter for the transfer method, you can use an adapter or reader. Use the following table to identify the requirements for the adapter or drive that you need.

Click to view a table of defibrillator data-transfer methods

Defibrillator data transfer method	Requirements
HeartStart FR2 uses a CompactFlash data card.	Reading HeartStart FR2 data
HeartStart FR3 uses a custom Philips version of the SD data card, or *Bluetooth* data transfer.	Transferring HeartStart FR3 data
HeartStart FRx uses infrared data transfer.	Downloading HeartStart FRx and HeartStart HS1 data
HeartStart HS1 uses infrared data transfer.	Downloading HeartStart FRx and HeartStart HS1 data
HeartStart MRx uses a CompactFlash data card, *Bluetooth*, or batch LAN data transfer.	Working with HeartStart MRx data

Defibrillator data transfer method	Requirements
HeartStart XL uses ATA flash data cards.	Reading HeartStart XL data

Quick reference to data cards

The following table shows the defibrillators with their associated data cards.

Defibrillator	Transfer method	Requirements
HeartStart FR2		HeartStart FR2 defibrillators use CompactFlash cards with a CompactFlash card reader.
HeartStart FR3		HeartStart FR3 defibrillators use Philips secure digital SD data cards, with a SD data-card reader.
HeartStart MRx		HeartStart MRx defibrillators use CompactFlash cards with a CompactFlash card reader.
HeartStart XL		HeartStart XL defibrillators use ATA flash cards with the ATA flash-card reader.
HeartStart XL+		HeartStart XL+ defibrillators use USB drives.
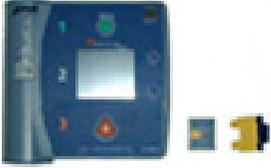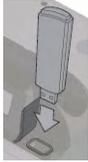
Selecting Bluetooth accessories

HeartStart MRx and FR3 defibrillators support Data Messenger data transfer using *Bluetooth* wireless technology.

Data Messenger was tested with the following Windows systems and *Bluetooth* stacks:

- Windows XP or Windows 7: Microsoft *Bluetooth* stack (for MRx)

- Windows XP or Windows 7: Widcomm *Bluetooth* stack (for FR3 or MRx)

If your computer did not come with the installed *Bluetooth* option, you must use a *Bluetooth* adapter that supports these stacks.

The Data Messenger Mobile Edition was tested on the following Windows 6.5 mobile devices, with the Widcomm *Bluetooth* stack:

- HTC TouchPro2

- HTC HD2

System Log messages

Use the System Log to view all Data Messenger activity and troubleshoot the processing of patient data. For more information about using the System Log, see Working with the System Log on page 60.

The System Log includes three types of messages:

- Error messages describe incomplete actions.

- Warning messages alert you to actions that did not complete because of unexpected events.

- Information messages describe the actions that the software completes successfully.

The following tables (organized by type of message) describe messages that appear in the action column and identify possible issues and their solutions.

Error messages

Action	Description	Possible issues and solutions
Add a file	Failed to add file to files list: {FileName} from {DirName}	The disk is either full or non-writeable. Make sure that the disk is not full and writeable. Restart Data Messenger.
Apply the configuration	Failed to apply the current configuration	The Data Messenger configuration file is corrupt or cannot be read. Check the settings in the Configuration window.
Check for update	Failed to check for update	Check your connection to the Internet.
Check for update	Failed to retrieve product code to check for update	The Data Messenger configuration file is corrupt. Reinstall Data Messenger.

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Action	Description	Possible issues and solutions
Delete file group	Failed to process the deletion. Cannot remove files for: {FileName} from {DirName}	The file is inaccessible due to permissions rights, or another process is using the file. Make sure that the file is accessible and restart Data Messenger.
Delete the case manually	Failed to delete the case. Failed to remove the source data from : {SoucePath}	Make sure that the source data is available and accessible.
Deserialize internal information	Failed to retrieve case information: {FileName}	The file is inaccessible due to permission rights or corrupted. Make sure that the file is accessible.
Export the configuration	Failed to export configuration file: {FileName}	The configuration file is inaccessible due to permission rights. Make sure that the file is accessible.
Import the case manually	Failed to manually import case: {FileName} from {DirName}	Cannot import a case. Make sure that the file format is correct and that the case is accessible.
Import the configuration	Failed to import configuration file: {FileName}	The configuration file is corrupted. Try again with a new copy of the configuration file.
Link patient data	Failed to add patient data to Case list: {FileName}	Restart the computer and Data Messenger.
Link patient data	Failed to find patient data for: {FileName}	Send the data again and manually add the patient information in the fields on the Cases tab.
Print the case manually	Failed to print case: {CaseName}	Make sure that a default printer is set and accessible.
Process data	Failed to process data: {FileName}	One of the workflow actions on the System Log failed to complete. Correct the cause of the failure and retry.
Process Forward	Failed to forward the case data. URL for the event summary data was not specified.	Specify the Event Review Pro URL in the Configuration window on the Case Workflow tab.

Action	Description	Possible issues and solutions
Process Forward	Failed to forward the case data. Encountered an unexpected file extension.	Verify that the file extension is correct and send the patient data again.
Process Forward	Failed to forward the case data. Reached the maximum number of retries.	System traffic is preventing the action. Wait for a period of time and then retry.
Process Forward	Failed to forward the patient data. URL for the 12-lead or PCDT data was not specified.	Specify the Telemedicine URL in the Configuration window on the Advanced Workflow tab.
Remove a case	Failed to remove case: {FileName}	Make sure that the computer is not out of memory or storage space. Restart Data Messenger.
Retrieve next case to process	Failed to retrieve the next case waiting to be processed	Make sure that the computer is not out of memory or storage space. Restart Data Messenger.
Retrieve the case	Failed to retrieve case: {FileName}	A generic failure to retrieve the case occurred. Try to send the data again.
Retrieve the configuration	Failed to retrieve configuration from file: {FileName}	Configuration file may be corrupt. Restart Data Messenger and import the configuration file, or manually enter the configuration.
Scan for PCDT	Failed to retrieve all periodic clinical data transmissions (PCDT) files, unable to process incomplete files for: {PCDTFileName}	Data Messenger did not receive all three files from the *Bluetooth* transmission. Try to send the data again.
Scan for PCDT	Failed to retrieve PCDT for file: {DONFileName}	Make sure that Data Messenger is compatible with the MRx device. Check that there is enough memory and storage space on the computer. Restart the MRx device and Data Messenger.

Action	Description	Possible issues and solutions
Scan for PCDT	Failed to retrieve PCDT files from folder {FolderPath}	The folder for PCDT files is either missing or inaccessible. Verify that the folder is accessible. In addition, you can specify a different folder on the Advanced Workflow tab in the Data Messenger Configuration window.
Scan IrDA	Failed to scan for IrDA defibrillators	A generic failure to scan IrDA occurred. Restart Data Messenger and the device.
Scan SD card	Failed to scan the SD card	The SD card is corrupted. Remove the SD card and reinsert.
Scan for 12-lead	Failed to scan for 12-lead	A generic failure to retrieve 12-lead file occurred. Try to delete the *Bluetooth* folder, start Data Messenger, and send the data again.
Scan for case	Failed to load case: {CaseName}	Failed to create a case for found event summary data. Try to retransmit the case.
Scan for case	Failed to scan for case	A generic failure to retrieve case file occurred. Make sure that event summary data are available and restart Data Messenger.
Start BLDTBeacon	Failed to start Batch LAN Data Transfer Beacon.	Make sure that the configuration is valid and that the port is accessible from outside the firewall.
Start Data Messenger	Failed to start Data Messenger. The configuration file is either missing or incorrect.	Create a new configuration file using the Data Messenger Configuration window.
Start Data Messenger Mobile Edition	Failed to start HeartStart Data Messenger Mobile Edition	Restart the mobile device.
Stop BLDTBeacon	Failed to stop Batch LAN Data Transfer Beacon	Batch LAN Data Transfer (BLDT) did not exit in time. Make sure that your computer has adequate resources to run the application.
Synchronize the configuration	Failed to synchronize the desktop edition and mobile device	Restart the mobile device and reconnect it to the Data Messenger computer.

Action	Description	Possible issues and solutions
Update patient data	Failed to update the changed data for: {FileName}	Cannot map updated patient information into the data. Restart Data and the computer.
Write the configuration	Failed to write FTP server info	Make sure that the computer has enough storage space and that the user has write permission for the output folder.

Warning messages

Action	Description	Possible issues and solutions
Add a file	Expired trial period. Data Messenger can process case data in Manual Process mode.	The trial period expired. Activate the license and try again.
Close the configuration	Closed the configuration without saving the changes	You did not save the configuration changes before you closed the Data Messenger Configuration window.
Create file list	Removed the folder with an error: {FolderName}	Removed folder that Data Messenger does not recognize.
Create file list	Failed to add from folder: {FolderName}	Cannot add the file. Make sure that the computer is not out of memory. Restart Data Messenger.
Create file list	Removed the file with an error: {FileName}	Removed file that Data Messenger does not recognize.
Delete data card data	Failed to delete file {FileName}	The file may be in use or file permission prevents it from being deleted.
Delete data card data	Failed to delete folder {FolderName}	The folder may be in use or file permission prevents it from being deleted.
Delete data card data	Failed to delete folder and content in {FolderName}	The folder and content may be in use or file permission prevents it from being deleted.
Display the Readme file	Failed to display the ReadMe file	Cannot find the ReadMe file. Check that the file exists and that it is associated with an application that can read it. If this file is missing, try reinstalling Data Messenger.

Action	Description	Possible issues and solutions
Display the user guide	Failed to display the user guide	Cannot find the user guide. Check that the PDF file exists and that it is associated with an application that can read it. If this file is missing, try reinstalling Data Messenger.
Install the Mobile edition	Cannot install the mobile edition. Activate the license.	Cannot install the mobile edition without an active license. Activate the license and try again.
Migrate user data	Failed to migrate user data from Data Messenger {FolderName} to {FolderName}	Make sure that the current version of Data Messenger was not previously installed and that previous Data Messenger user data is not corrupted.
Move to the backup folder	Failed to move data to FolderName}	Make sure that the backup folder exists and that the user has write permission for the folder.
Move to the backup folder	Failed to delete file {FileName}	This file may be in use or file permission prevents it from being deleted.
Move to the backup folder	Failed to delete folder and content in {FolderName}	The folder and content may be in use or file permission prevents it from being deleted.
Process Delete	Failed to delete source for: {FileName}	Check that the data source is in range and connected, that the data card is inserted, that network drives are accessible, and that the file is not in use.
Process Email	Failed to email data: {FileName}	Check the following: email client and configuration, accessible network, computer memory, and computer storage space.
Process Export	Failed to export data: {FileName} to {FolderName}	Make sure that the computer has enough memory and storage space. If folder is on a network share, make sure that the share is accessible and that the user has writer permission.
Process Forward	Failed to forward: {FileName} to {URL}	Failed to read the file or encountered a network connection problem. Make sure that the file can be read, that Data Messenger can connect to the network, and that the receiving server is operational.

Action	Description	Possible issues and solutions
Process Forward	Failed to forward. Server response: {StatusCode}	Received an incorrect response from the server. Make sure that the receiving server is running correctly.
Process Print	Failed to print data: {FileName}	Make sure that the printer is ready and accessible.
Retrieve the acquisition	Expired trial period. Data Messenger processes case data only in Manual Process mode.	The trial period expired. Data Messenger processes case data only in the Manual Process mode. For full functionality, contact Philips to purchase a license.
Scan for 12-lead	Expired trial period. Ignored the retrieval of 12-lead file: {12LeadFileName}	The trial period expired. Data Messenger does not transfer incoming 12-lead files. For full functionality, contact Philips to purchase a license.
Retrieve the acquisition	Retrieved a duplicate acquisition on process list: {CaseName}	A duplicate file exists on the process list. Data Messenger does not create a duplicate entry.
Retrieve Column Customization	Failed to retrieve column customization for tab: {TabName}	The file for the customized layout is corrupted.
Retrieve the configuration	Did not create configuration version {VersionNumber} with this Data Messenger	Unrecognized configuration version. Data Messenger will attempt to retrieve baseline information.
Retrieve the configuration	Failed to retrieve configuration from file: {Filename}	The configuration file is missing, inaccessible, or incorrect. Recreate the configuration.
Retrieve the customized layout	Failed to read setup file	The setup file for Data Messenger Manual Process window is either missing or Data Messenger encountered a disk read error and reverted to default settings.
Scan for PCDT	Expired trial period. Ignored the retrieval of PCDT file: {PCDTFileName}	The trial period expired. For full functionality, contact Philips to purchase a license.
Scan for PCDT	Found a duplicate PCDT file: {PCDTFileName}	Duplicate PCDT ignored by Data Messenger.

Action	Description	Possible issues and solutions
Retrieve registry value	Failed to retrieve registry value: {RegistryKey}	Make sure that Data Messenger is correctly installed and that the user has access to registry.
Save the customized layout	Failed to save setup file	The setup file for Data Messenger Manual Process window is either write-protected or in use or Data Messenger encountered a disk write error.
Scan for 12-lead	Found a duplicate 12-lead: {12LeadFileName}	Duplicate 12 lead ignored by Data Messenger.
Scan for case	Found a duplicate case: {CaseFileName}	Duplicate case ignored by Data Messenger.
Scan for case	Failed to load case: {CaseName}	Make sure that the case is accessible and that the user has read permission. Make sure that the computer has adequate memory and storage space.
Set registry value	Failed to set {RegistryKey} with value: {value}	Make sure that Data Messenger is installed correctly, and that the user has permission to modify registry. Restart Data Messenger.
Start Data Messenger Mobile Edition	Data Messenger Mobile does not email, export, or print cases	Use the desktop Data Messenger version to email, export, or print cases.
Stop Data Messenger	Stopping Data Messenger. The Data Messenger Configuration window will close.	Data Messenger is closing, but the Configuration window is still open.
Stop Data Messenger	Stopping Data Messenger. The Data Messenger Manual Process window will close.	Data Messenger is closing, but the Data Messenger Manual Process window is still open.
Synchronize the configuration	Failed to detect a connected mobile device	Either ActiveSync is not running or the mobile device is not connected to the Data Messenger computer. Try to connect the mobile device to the computer and try again.
Synchronize the	Failed to synchronize errored files from:	Make sure that the Mobile device is connected and accessible. Restart both

Action	Description	Possible issues and solutions
configuration	{MobileFolderPath}	the Mobile device and computer.
Synchronize the configuration	Cannot synchronize the desktop and mobile editions.	Cannot synchronize the desktop and mobile editions without an active license. Activate the license and try again.
Validate the configuration	Failed to validate the configuration	The configuration is not valid. Correct the error identified by Data Messenger.

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Using the HeartStart Data Messenger Mobile Edition

The HeartStart Data Messenger Mobile Edition (Mobile Edition) is used by some defibrillator programs that need to transmit data wirelessly from the field to a data management system in another location—for example, from an ambulance to a hospital. Mobile Edition is available only in English.

After you install and activate the English version of Data Messenger software on your computer, you can install the Mobile Edition on a pocket PC or smart phone that is equipped with infrared, *Bluetooth*, or data-card access. See .

The Mobile Edition receives patient data from defibrillators, and prepares and forwards (processes) the data according to the preconfigured workflow. The Mobile Edition displays System Log messages as Data Messenger processes the data. It can also prepare the defibrillator for the next patient by removing the current patient data from Data Messenger and its data source, the defibrillator, a data card, or the *Bluetooth* folder. The Mobile Edition does not display or print reports.

Mobile Edition prerequisites

The Mobile Edition is contained only in the English Data Messenger software. To use Mobile Edition, you need to meet these prerequisites:

- Install the English version of Data Messenger on a computer with a supported Windows operating system, and activate the license.

- Install synchronization software for your operating system, as described in the system requirements for Mobile Edition.

- Your mobile device must have a supported wireless operating system, and must be equipped with *Bluetooth* wireless technology, infrared (IrDA), or data-card access.

⚠ Before using Mobile Edition to manage actual cases, test Mobile Edition on your mobile device by receiving and forwarding data to ensure that the device and configuration are working properly.

System requirements for the Mobile Edition

Hardware	Requirements and purpose
Data Messenger computer	Install and activate an English version of Data Messenger on a computer with a supported Windows operating system. For the Data Messenger system, see System requirements on page 8.
Mobile devices	To monitor Data Messenger as the software receives, prepares, and transfers patient data according to the preconfigured workflow: • Windows 6.5 mobile device, with the Widcomm *Bluetooth* stack • Wi-Fi or Internet data access to transfer patient data One or more of the following transfer methods: • Infrared transmission • Data-card access • *Bluetooth* transmission For information about *Bluetooth* accessories, see Selecting Bluetooth accessories on page 88. To synchronize information between Data Messenger and Mobile Edition, go to the Microsoft Web site for the current version of: • Microsoft ActiveSync for Windows XP or Windows tablet PC • Windows Mobile Device Center for Windows 7

Guidelines for using the Mobile Edition

Philips recommends that you keep the following guidelines in mind when using the Mobile Edition.

The Mobile Edition supports the following features:

- Forwards defibrillator data within the constraints of your network.

    - If a computer is within the company firewall, then the Mobile Edition can forward data to computers within the firewall.
    - If the mobile device connects to the Internet from outside the company firewall, then the destinations must be on a registered Internet domain.

- Transfers defibrillator data using the following transfer methods, when supported by the mobile device:

    - Infrared port
    - *Bluetooth* from HeartStart MRx or HeartStart FR3
    - Data card

- Transfers data directly from the defibrillator, instead of from Data Messenger on the computer. If the defibrillator data contains the reference ID and institution information, then the Mobile Edition includes this information in the file.

- Automatically backs up cases that fail to process on the Mobile Edition. The software backs up the cases onto the computer when you synchronize the Mobile Edition and Data Messenger. After the synchronization, Data Messenger lists these cases on the Data Messenger Manual Process window. You can then process selected cases manually from the Cases tab.

The Mobile Edition does *not* support the following features:

- Sending emails to a configured destination

- Displaying or printing

- Exporting case data to a folder or a URL

- Backing up processed data (due to space limitations)

Installing the Data Messenger Mobile Edition

After you activate the English version of Data Messenger on your computer, you can install the Mobile Edition. For information about installing Data Messenger on your computer, see Installing Data Messenger on page 12.

You must perform the following procedures from the Data Messenger computer to complete the Mobile Edition installation and setup.

- Install the Mobile Edition software on the Data Messenger computer and the mobile device.
- Synchronize the mobile device with the Data Messenger computer.

Installing the Mobile Edition using a Windows 7 computer

Follow these installation instructions if you are running Data Messenger on a Windows 7 computer.

To install the Mobile Edition using a Windows 7 computer

1. Turn on the mobile device.
2. On the Data Messenger computer Start menu, click **Windows Mobile Device Center**.

   If the Windows Mobile Device Center (WMDC) window does not display, complete the following steps:

   a. Click the Windows **Start** button.
   b. Click **All Programs**.
   c. Click **Windows Mobile Device Center**.
      The Windows Mobile Device Center window appears.

3. In the WMDC window, connect the mobile device to the Data Messenger computer. For information about how to connect your mobile device to a computer, consult your mobile device manual.

   Wait until the WMDC window displays the Connected status.

   If the connected status does not display, disconnect and reconnect the mobile device on the computer.

4. In Data Messenger, complete the following steps:

   a. Open the Data Messenger Configuration window.

   b. On the toolbar, click the down-arrow to the right of the Mobile

       button. The toolbar button displays a drop-down menu.

   c. Click **Install** on Device. Data Messenger starts the installation process.

   d. Follow the on-screen instructions.

      A message might appear stating that the Data Messenger installation will make changes to the computer.

   e. Click **Yes** to continue with the installation.

5. On the WMDC, hold the cursor over Programs and Service. When the list appears, click **More**.

6. From the choices that appear, click **Add/Remove Programs**.

7. Make sure that both Microsoft .NET CF 3.5 and Philips HeartStart Data Messenger Mobile are checked.

8. Click **OK**.

   The installation completes successfully.

9. On the mobile device, follow the on-screen instructions to complete the following steps:

   a. Install Microsoft .NET 3.5 CF.

   b. Install Philips HeartStart Data Messenger Mobile.

10. After successfully installing the software on the mobile device, click **OK** to close the mobile device installation window.

11. On your computer, return to Data Messenger and click **Finish** to complete the installation.

12. Synchronize Data Messenger on the computer with Data Messenger on the mobile device.

    See

Installing the Mobile Edition using a Windows XP computer

Follow these installation instructions if you are running Data Messenger on a Windows XP computer.

To install the Mobile Edition from Microsoft Windows XP Pro or Windows XP Tablet Edition

1. Connect the mobile device to the Data Messenger computer.

    Wait until the Synchronization Setup Wizard displays.

    a. Follow the on-screen instructions.
    b. Click **Finish**.

2. If the ActiveSync window does not display, complete the following steps:

    a. Click the Windows **Start** button.
    b. Click **All Programs**.
    c. Click **Microsoft ActiveSync**. The ActiveSync window appears.

3. In Data Messenger, open the Data Messenger Configuration window.

4. On the toolbar, click the Mobile   button.

5. Click **Install** on Device.

    Data Messenger starts the installation process.

6. Follow the on-screen instructions on the Data Messenger computer and on the mobile device.

    The Add/Remove Programs window appears on the Data Messenger computer.

7. Verify that both Microsoft .NET CF 3.5 and Philips HeartStart Data Messenger are selected, and click **OK**.

8. Synchronize Data Messenger on the computer with Data Messenger on the mobile device.

    See Synchronizing Data Messenger with the Mobile Edition on page 104.

Understanding synchronization

When you configure the Data Messenger computer, the configuration also controls the configuration on the Mobile Edition. You must synchronize the Data Messenger computer and Mobile Edition after you install the Mobile Edition and after you modify the configuration for the Data Messenger computer.

The synchronization process downloads the configuration settings to the Mobile Edition, uploads, and merges the System Log for the Mobile Edition with that of the Data Messenger computer.

During synchronization, the Mobile Edition also uploads any case that did not process successfully. The Data Messenger computer lists the data on the Cases tab. You can then process the data manually. For more information, see Processing cases on page 54.

After synchronization, the mobile log and the list of unsuccessful cases are available only on the Data Messenger computer, and no longer on the Mobile Edition.

Synchronizing Data Messenger with the Mobile Edition

Philips recommends that you synchronize the Data Messenger computer and the Mobile Edition frequently, such as at the end of every work shift. This will help ensure that the System Log contains a complete record of the Mobile Edition system activity.

To synchronize Data Messenger and the Mobile edition

1. Connect the mobile device to your Data Messenger computer. For more information, see your mobile device documentation.

2. Open the Data Messenger Configuration window.

3. On the toolbar, click the Mobile   button.

4. On the drop-down menu, click **Synchronize Configuration**.

   Data Messenger completes the following:

   - Downloads the configuration to the mobile device
   - Uploads the System Log to the Data Messenger computer
   - Uploads any cases that did not process successfully

   When the synchronization is complete, Data Messenger displays a message confirming this.

5. Click **OK**.

6. To use the new configuration, restart the mobile device by turning it off, and then on.

   For more information, see your mobile device documentation.

Starting the Mobile Edition

The Mobile Edition starts automatically when you turn on the mobile device.

You can also start the Mobile Edition manually.

To start the Mobile Edition manually

On the mobile device Start menu, tap Programs, and then tap Philips HeartStart Data Messenger Mobile.

The Data Messenger Mobile screen displays all log messages. As the patient event-summary data, 12-lead reports, and periodic clinical data are processed, the messages appear with the most recent message at the top of the list. For more information, see System Log messages on page 89.

Using the Mobile Edition

The Mobile Edition uses the configuration on the Data Messenger computer to process and monitor patient data. For example, if you set up Data Messenger to erase the original data on the Case Workflow tab, the Mobile Edition processes the cases and erases them from Data Messenger and its data source, the defibrillator, a data card, or the *Bluetooth* folder.

If you use the Mobile Edition to transfer cases to HeartStart Event Review Pro, the Mobile Edition transfers the original defibrillator data in the .hic file format. If you add a reference ID to a case on the General tab, the reference ID transfers to HeartStart Event Review Pro.

Status messages display on the mobile device as Data Messenger processes the patient event summary, 12-lead reports, or periodic clinical data.

Waking the mobile device before transmissions

Philips recommends that you also "wake up" your mobile device just before transmitting defibrillator data to Philips Data Messenger Mobile (Data Messenger Mobile). This ensures that the mobile device receives transmissions and does not "time out" during the transmission.

Monitoring activity on the mobile device

In addition to monitoring Data Messenger activity on the System Log tab on the Data Messenger computer, you can monitor system activity on the mobile device.

As the Mobile Edition transfers the cases to the configured destinations, it displays the System Log messages.

To view Data Messenger activity

Turn on the mobile device. For more information, see your mobile device documentation.

The Data Messenger Mobile screen displays all log messages.

To manage the list of messages

Tap Clear to clear the list of messages from the screen, not from the System Log.

To close the Mobile Edition

Use one of the following methods:

- Tap Exit to close Data Messenger Mobile.

- On touch-screen devices, tap the X in the upper right corner to hide the software.

Uninstalling the Mobile Edition

This topic discusses how to remove the Mobile Edition software from the mobile device. See Removing the Mobile Edition using Windows 7 on page 107 and Removing the Mobile Edition using Windows XP on page 108.

For information about uninstalling Data Messenger from your computer, see Uninstalling Data Messenger on page 12.

Removing the Mobile Edition using Windows 7

To remove Mobile Edition from the mobile device

1. Turn on the mobile device.

2. From the Data Messenger computer Start menu, click **All Programs**.

3. Click **Windows Mobile Device Center**.

4. With the Windows Mobile Device Center window open, connect the mobile device to the Data Messenger computer.

   Wait until the Windows Mobile Device Center window displays the Connected status.

   If the status does not display, disconnect the mobile device from the computer, and then reconnect.

5. On the mobile device, exit the Data Messenger Mobile software.

6. In the Windows Mobile Device Center window, complete the following steps:

   a. Click **Connect without Setting Up Your Device**.
   b. Place the mouse over Programs and Service. The text expands.
   c. Click **More >**.
   d. Click **Add/Remove Programs**.
   e. Verify that Philips Data Messenger Mobile is *not* selected.
   f. Click **OK**.

7. Follow the on-screen instructions, if any, on the Data Messenger computer and mobile device.

8. From the mobile device Start menu, verify that the Data Messenger Mobile software was removed.

9. Close the Windows Mobile Device Center window.

For information about uninstalling Data Messenger from your computer, see Uninstalling Data Messenger on page 12.

For information about synchronizing, see Synchronizing Data Messenger with the Mobile Edition on page 104.

Removing the Mobile Edition using Windows XP

Before removing the Mobile Edition, make sure that it is connected to the Data Messenger computer.

To remove Mobile Edition from the mobile device

1. Open the Microsoft ActiveSync window on the computer that runs Data Messenger.

   a. Click the Windows **Start** button.
   b. Click **All Programs**.
   c. Click Microsoft ActiveSync. The ActiveSync window appears.

2. On the Tools menu, click **Add/Remove Programs**.

   The Microsoft ActiveSync window displays a dialog box.

3. Verify that Philips Data Messenger Mobile is *not* selected.

4. Click **OK**.

If the mobile device provides any on-screen instructions, follow them.

For information about uninstalling Data Messenger from your computer, see Uninstalling Data Messenger on page 12.

For information about synchronizing, see Synchronizing Data Messenger with the Mobile Edition on page 104.

Implementation references

You can use the references listed in this topic while you set up and troubleshoot HeartStart Event Review Pro and HeartStart Telemedicine Server for use with Data Messenger.

To obtain a copy of the documents, contact your Philips representative. You can also visit the Philips Web site at the following URL address: http://www.healthcare.philips.com/main/support/index.wpd

> ℹ The *Data management solutions implementation guide* is available only in English.

- To plan the data management implementation, see the *Data management solutions implementation guide*, and the "Streamlining data management workflow" application note.

- To set up the FTP server to use the HeartStart MRx batch LAN data-transfer feature, see *HeartStart MRx instructions for use* and *Data management solutions implementation guide*.

- To set up the *Bluetooth* transmission option to receive HeartStart MRx data, see Downloading HeartStart MRx data using Bluetooth on page 78 and the *Data management solutions implementation guide*.

- To troubleshoot Data Messenger, see the *Data management solutions implementation guide*.

- To set up and use the HeartStart Event Review Pro, see the *HeartStart Event Review Pro user guide*.

- To set up and use the HeartStart Telemedicine Server, see the *HeartStart Event Review Pro user guide*.

- To plan the data transmission implementation for the HeartStart MRx and HeartStart Telemedicine Server, see the "Emergency care clinical data transmission networks" application note.

Customer support

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

Customer support is available through email, Internet, and telephone.

Email product support is available in English only at: datamessenger.support@philips.com.

Internet product support is available at the following address:

http://www.philips.com/DataManagementSupport

For telephone assistance outside the United States, call your sales representative or local response center. See the following tables for contact information. You can also navigate to technical support telephone numbers for data management products at this address:

http://www.healthcare.philips.com/main/services/response_center

Region	Address	Telephone number
United States	Philips Healthcare 3000 Minuteman Road Andover, Massachusetts 01810-1099	800.722.9377
Canada	Philips Healthcare, a Division of Philips Electronics Ltd. 281 Hillmount Road Markham, Ontario, Canada L6C 2S3	+1(800) 291-6743
Authorized EU Representative Europe, Middle East, and Africa	Philips Medizin Systeme Boeblingen GmbH Cardiac and Monitoring Systems Hewlett-Packard Strasse 2 71034 Boeblingen, Germany	(+49) 7031 463-2254
Latin America	Philips Medical Systems Ltda. Rua Verbo Divino - 1400 - 7o Andar0	0800 7017789

Region	Address	Telephone number
	04719-002 - Sao Paulo, Brazil	
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

You can also navigate to technical support telephone numbers for data management products at the above addresses.

For telephone support in English only, call the following numbers between 9:00 AM and 5:00 PM, Pacific Time:

- 800.722.9377, inside the United States
- +1.770.510.1130, outside the United States

Philips Response Center telephone numbers

The following tables contain telephone numbers for Philips Response Centers around the world.

North America

Country	Telephone number
Canada	800.323.2280
United States of America	800.722.9377

Europe

Country		Telephone number
European International Sales		41 22 354 6464
Austria		01 60 101 820
Belgium	French	02 525 68 80
	Dutch	02 525 68 81
Finland		09- 615 80 400
France		0810 835 624
Germany		0180 3333 544
Italy		800 232100

Country		Telephone number
Luxembourg		+32 2 525 68 80
Netherlands		040 27 85600
Portugal		800 201766
Spain		900 180612 902 304050
Sweden		08-59 85 2530
Switzerland	German	0800 80 3000
	French	0800 80 3001
United Kingdom		0870 532 9741

Asia and Pacific

Country		Telephone number
Australia		1800 251 400
China	Beijing	800 810 0038
	Hong Kong	852 2821 5888
India		18004256788
Indonesia		021 794 7542
Japan		0120 381 557
Korea		080 372 7777
	Seoul	02 3445 9010
Malaysia		1800 866 188
New Zealand		0800 251 400
Philippines		02 845 7875
Singapore		1800 PHILIPS (1800-744-5477)
South Africa		011 471 6000
Thailand		02 614 3559
Taiwan		0800 005 616

Comments or suggestions?

Please send your feedback and suggestions to: datamessenger.support@philips.com.

Supported help

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 the application
- Assisting you in selecting and configuring card readers

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. The support technicians can help you determine if you have a hardware problem, but they cannot help you fix problems that are not related to the Philips HeartStart application software.
- Troubleshooting defibrillators. Instead, call Philips Customer Support and ask for defibrillator support.
- Troubleshooting non-Philips products.

Helping us help you

You can help our technicians give you good support by following these steps:

1. Call from a phone near your computer.
2. Start the software application.
3. Have the following information:
   - Windows version.
   - The application version number. This is available from the Help menu. Click the About option.
   - A written copy of the error message text.
   - The activity and task you did when the error occurred.

Glossary

ACI-TIPI

For acute cardiac ischemia time insensitive predictive instrument. A Philips software tool that can provide a second opinion and decrease the time between the onset of a patient's acute cardiac ischemia (ACI) symptoms and the treatment of interventional cardiology. The ACI-TIPI feature computes a patient's likelihood of having an ACI based on the patient's age, gender, chest pain status, and acquired 12-lead ECG. When the defibrillator runs the ACI-TIPI analysis, the interpretative block on the 12-lead report includes ACI-TIPI data.

Administration

In Administration mode, you can apply or change configuration settings in a HeartStart supported defibrillator, and administrator can view HeartStart Configure activities.

Administration mode

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

Administration pane

In this pane, you can view System Log entries for the computer running HeartStart Configure.

AED

Acronym 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.

Bluetooth

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

Bluetooth wireless transmission

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

Card reader

Hardware that reads information from a data card.

CFG

Acronym 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

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

DAT

Acronym 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

Acronym for Electrocardiogram. The electrical rhythm of the heart as detected through defibrillator pads.

EMS

Acronym 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.

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

Acronym 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.

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.

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.

Workspace

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

XML

Acronym 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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