Merlin™ Connectivity Software

The Connectivity software enables the Merlin™ Patient Care System (PCS) to connect to the Merlin.net™ Patient Care Network (PCN) (page 2).

Administration

From the Administration window you can configure your network connection for your Merlin™ (PCS) and associate it to your Merlin.net™ (PCN) account (page 2). After you configure your network connection, programmer session records will automatically be sent to your Merlin.net PCN. To configure your network connections:

- Add a Location (page 1)
- Select a Wired Network Setup (page 1) or Wireless Network Setup (page 2)
- Select a Network Connection Type

See also:
- Merlin Connectivity Software (page 1)
- Network Status Indicator (page 2)
- Send Patient Records (page 3)
- Location & Networks (page 3)
- Edit or Delete a Location (page 4)
- Import and Export a Location (page 4)
- Precautions (page 1)

NOTE

You must have a St. Jude Medical supported wired or wireless card to configure your network connection. See the Merlin™ PCS manual for more information.

Accessed From: Tools menu > Connections > Administration

Precautions

Never share the clinic's network name or password.

Add a Location

To add a Location:

1. Select Tools > Connections > Administration.
2. Select the Add Location button.
3. Select the Add Location Name button, a Location Name window appears.
4. Type a Location Name.
   Keep the Location Name short and concise.
5. Select the Done button.
6. Select either the Wired Network button or the Wireless Network button.
7. If you selected the Wired Network button go to step 4 in Wired Network Setup (page 1), if you selected the Wireless Network button go to step 4 in Wireless Network Setup (page 2).

NOTE

To facilitate typing, you can plug an external keyboard into a USB port on the Merlin PCS. The external keyboard supports some special characters that the onscreen keyboard does not.

Wired or Wireless Network Setup

There are two types of network settings: Wired or Wireless.

See also:
- Wired Network Setup (page 1)
- Wireless Network Setup (page 2)

Wired Network Setup

To configure the network settings for your clinic using a wired network setup:

1. Select Tools > Connections > Administration.
2. Select the Add Location button.
3. Select the Wired Network button.
4. In the Wired Network Setup window, choose the DHCP or Static radio button. The DHCP option is typical. However, your IT department might require you to select the Static option.
   - If you choose the DHCP option, the Merlin PCS automatically configures your network settings.
   - If you choose the Static option, you must type the IP address, Netmask, Gateway, DNS, and Hostname.
5. To include 802.1x security, check the box. Select the Include 802.1x security button. In the 802.1x Security Settings window, configure the settings. For more information, contact your IT department. Select the Close 'X' button.

6. In the Wired Network Setup window, select the Configure button. If you choose the DHCP option, your network settings automatically appear in each field.

7. Associate your Location to your Merlin.net PCN account (page 2).

Wireless Network Setup
To configure the network settings for your clinic using a wireless network setup:
1. Select Tools > Connections > Administration.
2. Select the Add Location button.
3. Select the Wireless Network button.
   If the Wireless radio is not already on, it turns on. For more information, see the System Start-Up Screen Help Manual.
4. In the Wireless Network Setup window, select a wireless network from the list or add a new network.
   To select from the list:
   - A window appears. If enabled, select the Connect button. If the Connect button is disabled, you must type the required settings before the Connect button enables. Select the Connect button.
   To add a new network:
   - In the Add New Network window, select a security type from the drop down menu. Depending on your selection, additional settings appear. After you select the required settings, the Connect button enables. Select the Connect button.
5. Associate your Location to your Merlin.net™ PCN account (page 2).

Advanced Settings
Advanced settings enable you to enter proxy server and port information for internet connectivity. In a proxy environment, advanced settings are required. In a non-proxy environment, advanced settings are optional. For more information, contact your IT department.
1. In the Wired Network Setup (page 1) window or the Wireless Network Setup (page 2) window, select the Advanced Settings button.
2. Type the Proxy Server and Port.
3. Type the user name and password.
4. Select the Apply button.

NOTE
Only applicable if your network requires a connection to a Proxy Server. For more information, contact your IT department.

Network Status Indicator
The Network Status Indicator button shows your network connection status. If your network setting is wireless, the Network Status Indicator shows the wireless connection. If your network setting is wired, the Network status indicator shows the wired connection.

Table 1. Network Status Indicator

<table>
<thead>
<tr>
<th>Network Status Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excellent connection strength.</td>
</tr>
<tr>
<td></td>
<td>Medium connection strength. Shown for wireless connection only.</td>
</tr>
<tr>
<td></td>
<td>Low connection strength. Move your Merlin PCS closer to your wireless access point. Shown for wireless connection only.</td>
</tr>
<tr>
<td></td>
<td>Not connected. See Troubleshooting (page 7).</td>
</tr>
</tbody>
</table>

Network Connection
The Network Connection becomes available once you have set up your Location (page 1) and Wired Network (page 1) or Wireless network (page 2).

See also:
- Merlin.net™ PCN account (page 2)

Merlin.net™ PCN Account
You must have a Merlin.net™ PCN user name and password. Contact your Merlin.net PCN administrator to get a user name and password if you do not have one. You must have a successful Wired Network Setup (page 1) or Wireless Network Setup (page 2) to associate your Location to your Merlin.net PCN account.
1. Select Tools > Connections > Administration.
2. Select the Add Location button.
3. Select either the Wired Network button or the Wireless Network button.
4. Select the Merlin.net Clinic Name button.
5. Select the User ID button and enter your Merlin.net PCN user name.
6. Select the Password button to type your Merlin.net PCN password.
7. Select the Log In button.
   You return to the Administration window.

Send Patient Records from the Merlin™ PCS
After you configure your network settings and associate the Location to your Merlin.net™ PCN account (page 2) the Merlin™ PCS automatically sends session records to your Merlin.net PCN.

   NOTE
   Files will only be transferred once you have ended the session. If your files do not transfer, see Troubleshooting (page 7).

Locations & Networks
Once you have added one or more Locations, the Location & Networks tab becomes available.

From here you can:
- Change your Location (page 3) (if you have more than one Location)
- Check Connection (page 3)
- Review Transmission Status (page 3)

Accessed From: Tools menu > Connections > Locations & Networks

Change your Location
If there is more than one Location configured for your clinic, you can select the Location you want to use:
1. Select Tools > Connections > Locations & Networks.
2. Select the Location button.
   A list of the configured Locations appear.
3. Select the new Location setting.
   NOTE
   If you have a Location associated to a Merlin.net PCN account, the “Clinic Name” button displays m.net.

Check Connection
If you are having connection issues you can check your connections to your Merlin.net™ PCN account. If you continue to have connection issues, see Troubleshooting.

   NOTE
   You cannot check the connection while a session is in progress.

To check connection:
From the Start-up screen, do one of the following:
- Select the Network Status Indicator button in the upper right corner of the screen and select the Check Connection button.
OR
- Select Tools > Connections > Location & Networks and select the Check Connection button.

Transmission Status
The transmission status shows the most recent 20 transmissions. Two options to view the transmission status:
1. Select the Network Status Indicator button in the upper right corner of the screen.
2. Select the Transmission Status button.
3. Select the Close (X) button to close the Transmission Status window.
OR
To review the transmission status from the Locations and Networks tab:
1. Select the Transmission Status button.
2. Select the Close (X) button to close the Transmission Status window.
Below are explanations of the possible transmission status messages.
Table 2. Explanation of Transmission Status Messages

<table>
<thead>
<tr>
<th>Status</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pending</td>
<td>Waiting to copy or upload the data.</td>
</tr>
<tr>
<td>Sent to [Clinic Name]</td>
<td>Successfully uploaded the data to the Merlin.net location.</td>
</tr>
<tr>
<td>Successful</td>
<td>Successfully uploaded the Connectivity Log.</td>
</tr>
<tr>
<td>Unregistered</td>
<td>The patient is not registered in Merlin.net. No data uploaded.</td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>Could not upload the data. Contact Technical Services. (page 8)</td>
</tr>
</tbody>
</table>

Edit or Delete a Location

See also:
- Edit a Location (page 4)
- Delete a Location (page 4)

Edit a Location
To edit a Location:
1. Select Tools > Connections > Administration.
3. Select the Location.
4. Select the Edit Selected button.
You can edit the name of the Location (page 1), the Wired Network (page 1) or the Wireless Network (page 2) settings.

Delete a Location
To delete a Location for your clinic:
1. Select Tools > Connections > Administration.
3. Select the Location.
4. Select the Delete Selected button.

NOTE
The Location you delete changes to "no clinic" and your Merlin™ PCS will not be connected to a Wired or Wireless Network. You cannot send session records from a deleted Location to the Merlin.net™ PCN.

Import and Export a Location

Contents:
- A Location for Multiple Merlin PCSs (page 4)
- Insert USB flash drive (page 4)
- Export a Location (page 5)
- Import a Location (page 5)

A Location for Multiple Merlin PCSs
If there is more than one Merlin™ Patient Care System (PCS) in your clinic, you can use the same Location for each Merlin PCS. Configure the Location from Administration (page 1) for one Merlin PCS, export the Location (page 5) to a USB flash drive (page 4), then import the Location (page 5) to the other Merlin PCSs.

Insert USB Flash Drive
To import or export a Location(s) or system logs, insert your USB flash drive into one of the USB ports on the Merlin™ Patient Care System (PCS). The USB ports are marked with a USB port symbol. Open the cover to access the port.

Figure 1. USB port symbol
Export a Location

You can export your Location(s) to another Merlin™ Patient Care System (PCS). Insert a USB flash drive into a USB port on your Merlin PCS.

To export your Location(s):
1. Select Tools > Connections > Administration.
2. Do one of the following:
   - To export one Location: In the Administration window, select the Location name. Select the Export Selected button.
   - To export all of your Locations: Select the Export All button.
3. In the media window, the USB flash drive should be selected. If the USB flash drive does not appear, ensure the USB flash drive is firmly connected, select the Redetect Media button.
4. Select the Export button.

Import a Location

You can import Location configurations created on another Merlin™ Patient Care System (PCS). All Locations previously exported to a USB drive will be imported into the Merlin PCS.

To import one or more Locations:
1. Export the Locations from another Merlin PCS onto a USB drive. See Export a Location.
2. Insert the USB drive into the Merlin PCS.
3. Select Tools>Connections>Administration.
4. Select the Import All button.
   The import from media window appears with the USB drive identified by the port number.
5. If the selection is correct, select the Import button. Otherwise select the Redetect Media button or Cancel.
   The Merlin PCS imports the Locations and displays them In the Administration window.

MerlinReflect™ Settings

From the MerlinReflect™ Settings window you can enable the MerlinReflect feature on the programmer, accept or reject and end a sharing session with a remote user.

**NOTE**
The programmer user can share the programmer screen with a remote user but maintains control of the programmer. The remote user can only view and point to an area on the programmer screen. The remote user can also zoom in on the tablet to view the programmer screen more closely.

**CAUTION**
MerlinReflect should not be used as the sole basis for making decisions about patient medical care.
MerlinReflect should not be used in the diagnosis of disease or other conditions, for use in the cure, mitigation, treatment, or prevention of disease.
Data availability is subject to internet connectivity, access, and service availability.

**NOTE**
Do not capture programmer images while using the MerlinReflect application.

See also:
- Sharing the Programmer Screen with the Tablet (page 5)
- Enable the MerlinReflect™ Feature on the Programmer (page 5)
- Launch the MerlinReflect™ Application on the Tablet (page 6)
- Stop sharing with the Tablet (page 6)
- Disconnect from the Programmer (page 6)

Accessed From: Tools > Connections > MerlinReflect™ Settings

Sharing the Programmer Screen with the Tablet

To begin the sharing session between the programmer and the tablet using the MerlinReflect™ feature:
1. Ensure you have a wireless connection (page 2) or a wired connection (page 1).
2. Enable the MerlinReflect™ Feature on the programmer (page 5).
3. Launch the MerlinReflect™ Application on the Tablet. (page 6)

Enable the MerlinReflect™ Feature on the Programmer

1. Select Tools > Connections > MerlinReflect™ Settings, or Select the Network Status Indicator button > MerlinReflect™ Settings.
2. Select the MerlinReflect button to enable the MerlinReflect feature.
   The button shows the current state of the feature.
3. Select the Accept button.
The Accept and Reject buttons will be visible once a remote user has entered the session code (provided by the programmer user), user name, and selected the Connect button on the tablet. See Launch the MerlinReflect Application on the Tablet (page 6).

Launch the MerlinReflect™ Application on the Tablet
1. Select the MerlinReflect™ application.
2. Enter the session code.
   The session code is shown on the programmer screen and will be provided by the programmer user.
3. Enter your Name.
4. Select the Connect button.
   The tablet shows a, "Request Sent; Awaiting Acceptance" status. The programmer user selects the Accept (or the Reject) button, see Enable the MerlinReflect™ Feature on the Programmer (page 5). The programmer displays the connection status between the programmer and the tablet. If no connection is made, see Troubleshooting (page 7).

NOTE
If you return to the home screen on the tablet, this will end the MerlinReflect session between the tablet and the programmer.
To re-connect to the session:
Launch the MerlinReflect ™ application > Select the Connect button.
If more than five minutes have passed since the session ended, the session will need to be accepted again by the programmer user.

NOTE
The MerlinReflect™ feature on the programmer is disabled after 30 minutes of inactivity.

Stop Sharing with the Tablet
On the programmer:
- Select the Stop Sharing button to disable the connection between the programmer and the tablet.
OR
- Select the MerlinReflect button.
The button shows the current state of the feature.

Disconnect from the Programmer
On the tablet:
1. Select the Home button.

Notifications
To reduce tablet pop up distractions while using the MerlinReflect™ application, it is recommended to set the notifications to Banner or Off.

System Requirements
- iPad¹ tablet, generation 2 or greater
- iOS 6.0 or greater

CAUTION
Any modifications to the tablet or its operating system, or to the MerlinReflect application may impair the functionality of the MerlinReflect™ feature. Do not incinerate, crush, short-circuit, modify, or disassemble the tablet.

Precautions
- Always end the MerlinReflect™ feature on the programmer when not in use
- Do not use the MerlinReflect application if the tablet is damaged
- Do not use the MerlinReflect application if the tablet’s operating system has been compromised or tampered with
- Do not use the MerlinReflect application when insufficient battery life remains on the tablet
- Do not use the MerlinReflect application in an area where the connection is low

¹ iPad is a trademark of Apple Inc., registered in the US and other countries.
Troubleshooting and Frequently Asked Questions

Contents
- Troubleshooting (page 7)
- Frequently Asked Questions (page 8)
- Technical Support (page 8)

The following tables list general troubleshooting steps and frequently asked questions to help you create your network connections for the Merlin™ PCS.

If you are still experiencing connectivity issues after following the recommendations in these tables, first confirm with your IT department that your wired or wireless settings are correctly entered and that your local network is connected to the internet. If problems persist, please contact Technical Support (page 8) for further information.

Troubleshooting

Table 3. Troubleshooting

<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Status Indicator (NSI) is not visible in the top right corner of the screen</td>
<td>The NSI is displayed only after you have configured a Location. (See Location). All connectivity features require configuration of a Location as a first step. See Wired or Wireless Network Setup (page 1).</td>
</tr>
</tbody>
</table>
| The NSI does not display any connection bars or there is a line across the NSI | The Merlin PCS is not able to detect a network connection.  
1. Make sure your wireless card is connected or your ethernet cable is correctly connected to the ethernet adapter on the Merlin PCS.  
2. Re-check your wired or wireless settings by ending your programming session and selecting Tools > Connections > Administration from the Start-Up screen. Then, select Edit Selected from the list of available locations. Make sure all the information is correct. |
| The NSI does not display all the bars | The NSI displays more bars when wireless signal strength is strong and displays fewer bars when the strength of the wireless signal is weak. To obtain a better signal:  
1. Try moving the Merlin PCS.  
2. If a different network is available, edit your location and connect to a different network.  
3. If your location does not have good wireless network coverage, you may want to consider using a wired network card. |
| The NSI shows the Merlin PCS is connected but files are not available in the Merlin.net system. | When new programming sessions are performed, records are only transferred to Merlin.net PCN if you have registered with Merlin.net PCN and if your Location is configured for Merlin.net PCN.  
1. Check the transmission status. Select Tools > Connections > Locations & Networks. Click the Transmissions Status button.  
2. Verify that the files are for patients registered in Merlin.net PCN. |
| I can’t configure or connect to a wireless network. | 1. Ensure that the St. Jude Medical™ approved wireless card is securely connected to the Merlin PCS.  
2. Confirm with your clinic IT department that you have entered the correct account information, security settings, proxy server, etc.  
3. Test your connection settings by using the Check Connection Button.  
For more information, see Wired or Wireless Network Setup (page 1). |
| I can’t configure or connect to a wired network. | 1. Ensure that the St. Jude Medical approved ethernet card is securely connected to the Merlin PCS.  
2. Ensure that the cable to the ethernet card is securely connected to the Merlin PCS and the network connector.  
3. Confirm that you have correctly selected DHCP (automatic) or Static (Manual) settings. Automatic settings are more common. However, some will require custom settings. Confirm with your clinic IT department that you have entered the correct account information, security settings, proxy server, etc.  
4. Test your connection settings by using the Check Connection Button.  
For more information, see Wired or Wireless Network Setup (page 1). |
Frequently Asked Questions

Table 4. Frequently Asked Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can I determine the current status of my network connection?</td>
<td>Use the Check Connection button to obtain the status of the connection. End the programming session and then select Tools &gt; Connections &gt; Locations &amp; Networks window. The button reports if Merlin.net PCN is reachable.</td>
</tr>
<tr>
<td>What network cards are supported by the Merlin PCS?</td>
<td>The Merlin PCS only supports St. Jude Medical™ approved wireless and ethernet cards. Check with your St. Jude Medical representative for more information.</td>
</tr>
<tr>
<td>Do I have to configure both a wireless and ethernet card?</td>
<td>Only one type of card is needed to connect to a network. The choice of card depends on the type of internet available to you. Check with your St. Jude Medical representative for more information.</td>
</tr>
<tr>
<td>How can I tell if my records were successfully transferred to the intended location?</td>
<td>Every attempted transmission is listed in the Transmission Status window, which is accessed from Tools &gt; Connections &gt; Locations &amp; Networks &gt; Transmission Status button. For a complete listing of all transmission status messages, see Transmission Status (page 3).</td>
</tr>
<tr>
<td>How can I transfer logs to Technical Support?</td>
<td>If you have an active connection to Merlin.net PCN, Connectivity logs are automatically transferred to SJM on a daily basis. When you select the Check Connection button, the Merlin PCS transfers the most recent logs from that day. If you do not have an active connection you can export your transmissions logs to a USB pen drive from the System Logs window. Go to Tools &gt; Maintenance &gt; System Logs and select the Connectivity Logs to export.</td>
</tr>
</tbody>
</table>

Technical Support

St. Jude Medical maintains 24-hour phone lines for technical questions and support:

- 1 818 362 6822
- 1 800 722 3774 (toll-free within North America)
- + 46 8 474 4147 (Sweden)

For additional assistance, call your local St. Jude Medical representative.
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