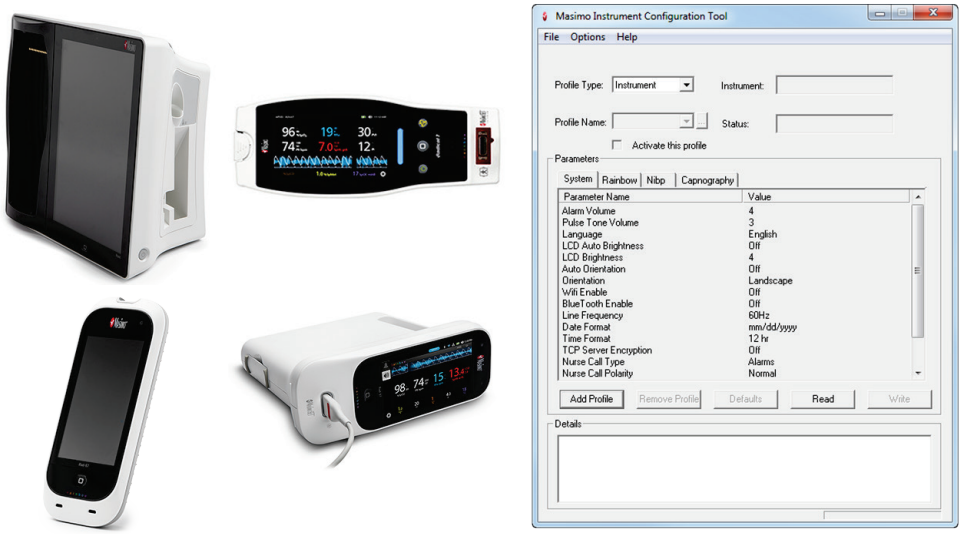
Operator's Manual

Masimo Instrument Configuration Tool™



MASIMO

These operating instructions provide the necessary information for proper operation of all models of MICT. There may be information provided in this manual that is not relevant for your system. General knowledge of pulse oximetry and an understanding of the features and functions of MICT are prerequisites for its proper use. Do not operate MICT without completely reading and understanding these instructions.

CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician.

Notice: Purchase or possession of this Masimo Configuration Utility compact disc or software does not carry any express or implied license to use this software with any device that is not an authorized device or separately authorized to use this Configuration Utility software.

For professional use. See instructions for use for full prescribing information, including indications, contraindications, precautions, and adverse events.

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Contents

About This Manual

This manual explains how to set up and use Masimo Instrument Configuration Tool. Important safety information relating to general use of MICT appears in this manual. Read and follow any warnings, cautions, and notes presented throughout this manual. The following are explanations of warnings, cautions, and notes.

A *warning* is given when actions may result in a serious outcome (for example, injury, serious adverse effect, death) to the patient or user.

WARNING: This is an example of a warning statement.

A *caution* is given when any special care is to be exercised by the patient or user to avoid injury to the patient, damage to this device, or damage to other property.

CAUTION: This is an example of a caution statement.

A *note* is given when additional general information is applicable.

Note: This is an example of a note.

Product Description and Intended Use

Product Description

The Masimo Instrument Configuration Tool (MICT) is a standalone software tool used to configure Masimo device patient profile and network settings as well as downloading trends. The tool is compatible with the following Masimo devices:

- Root/Root with NIBPT (Noninvasive Blood Pressure and Temperature)
- Radical-7
- Rad-97
- Rad-67

Key Features

MICT consists of the following features:

- Reading Masimo Device and Patient Profile Settings
- Configuring Masimo Device and Patient Profile Settings
- Configuring Masimo Device Network Settings
- Saving/Loading Workspaces to Replicate Settings on Multiple Masimo Devices
- Downloading Trends
- Adding Custom Patient Profiles (Up to 8 maximum)
- Removing User Defined Patient Profiles
- Configuring NIBP (Noninvasive Blood Pressure) Schedules
- Configuring EWS (Early Warning Scores)
- Configuring a Masimo Device to Connect to a Masimo System
- Configuring a Masimo Device to Connect to Kite
- Downloading Screening Results Data and Connecting to Masimo Systems in CCHD (Critical Congenital Heart Disease) Mode

  Note: CCHD is available in countries where cleared. For more information about CCHD, refer to ***Addendum, Rad-97 Operator's Manual: Critical Congenital Heart Disease Screening: Eve™***.
- Configuring Profile Parameter Values, Downloading Spot-Check Data, and Connecting to Masimo Systems in Vital Signs Check Mode

  Note: Vital Signs Check is available in countries where cleared. For more information about Vital Signs Check, refer to ***Addendum, Root, Vital Signs Check***.

Intended Use

MICT is a software application intended to configure device settings and download parameter trends.

Safety Information, Warnings and Cautions

WARNING: Patient monitoring must be suspended while configuring settings on the monitoring device.

WARNING: Do not connect MICT to a device that is actively monitoring a patient to avoid potential changes in device behavior.

WARNING: MICT is a tool for downloading device data. Clinical decisions should be based upon signs and symptoms.

CAUTION: Read the Radical-7, Rad-97, Rad-67, and/or Root operator's manual, accessories directions for use, all precautionary information, and specifications before use.

CAUTION: Confirm connections and settings before using MICT in order to ensure proper communication to the connected device.

CAUTION: Verify all settings before implementing any changes to avoid potential changes in expected device behavior.

CAUTION: Incorrect communication port setting may result in no or delayed download of data.

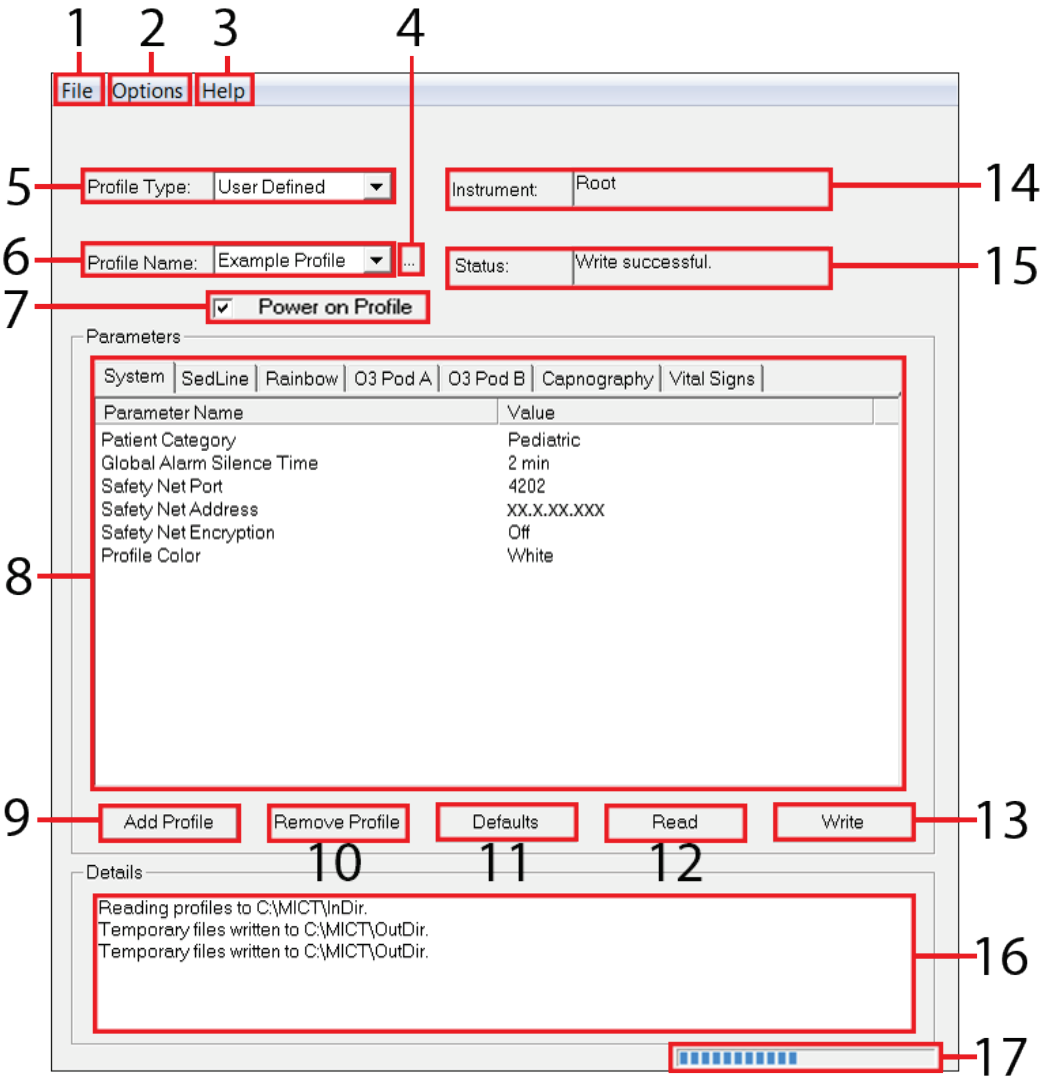
CAUTION: Devices connected through a network may be affected by network changes. Check network settings if devices do not communicate through the network.

Note: When connecting devices through a network connection, confirm the connecting devices are on the same network.

Chapter 1: Description

MICT Overview

The diagram and corresponding table below describe MICT functions and features.



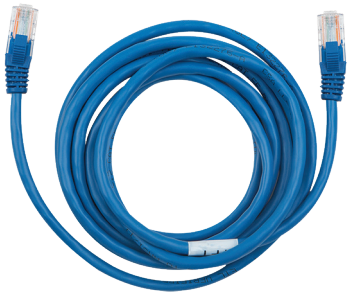
Ref	Name	Description
1	**File**	• ***Save Workspace:*** Save preferred device settings that will be used to configure multiple devices. • ***Load Workspace:*** Load a saved workspace into MICT to configure multiple devices with the same settings. For more information, see ***Saving and Loading Workspaces*** on page 36. • ***Exit:*** Click **File** then select **Exit** to close the MICT application.

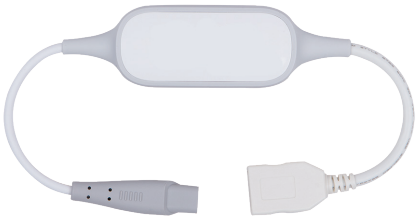
Ref	Name	Description
2	**Options**	• ***Setup Connection:*** Setup MICT serial or network connectivity with a Masimo device. For more information, see ***Connecting MICT to a Masimo Device*** on page 17. • ***Send TCP/IP Config:*** Send wireless network configuration files to a Masimo device. For more information, see ***Root/Root with NIBPT, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24. • ***Send SSL:*** Send a secured network connection configuration file to a Masimo device. For more information, see ***Rad-97 and Rad-67 Secured Network Connection*** on page 28. • ***Download Trends:*** Download parameter trend data from a Masimo device. For more information, see ***Downloading Trends*** on page 37. • ***Send Scoring Template:*** Send an EWS (Early Warning Scores) configuration file to a Masimo device. For more information, see ***Sending a Scoring Template*** on page 40. • ***Send Policy File:*** Send a policy file to configure access permissions in a Root device for *EWS* and/or *Vital Signs Check* mode. For more information, see ***Sending a Policy File*** on page 40. • ***Advanced:*** Set the time zone in MICT. Click **Options**, select **Advanced**, then select a time zone setting for MICT.
3	**Help**	• ***About MICT:*** Displays MICT version and copyright date. Click **Help**, then select **About MICT**. For more information, see ***View MICT Software Version*** on page 15.
4	**Edit Profile Name**	• Click the edit button  to change an existing User Defined profile name in a Masimo device. For more information, see ***Editing User Defined Profile Names*** on page 34.
5	**Profile Type**	• Click the profile type drop-down menu to select the profile type that will be configured on the device.
6	**Profile Name**	• Select the default or User Defined profile name to be configured in a Masimo device. For more information, see ***Configuring Parameter Values*** on page 31.
7	**Power on Profile**	• Select **Power on Profile** to configure a Masimo device to automatically display a selected profile type after next device power cycle. For more information, see ***Power on Profile*** on page 36.
8	**Parameters**	• The **Parameters** field displays default parameter values after opening the MICT application. Parameter values can be edited and written to a Masimo device. For more information, see ***Configuring Parameter Values*** on page 31.
9	**Add Profile/Edit Profile**	• Click the **Edit Profile** button to edit parameter values in a default patient profile (Adult, Pediatric, or Neonatal). For more information, see ***Configuring Parameter Values*** on page 31. • Click the **Add Profile** button to create a new User Defined profile and edit parameter values in a User Defined profile. For more information, see ***Adding a User Defined Profile*** on page 33.
10	**Remove Profile**	• Click the **Remove Profile** button to remove a User Defined profile from a Masimo device. For more information, see ***Removing User Defined Profiles*** on page 35.
11	**Defaults**	• Click the **Defaults** button to reset all parameter values in MICT to default values.

Ref	Name	Description
12	**Read**	• Click the **Read** button to receive and display parameter values in MICT. For more information, see ***Reading Parameter Values*** on page 31.
13	**Write**	• Click the **Write** button to send parameter values from MICT to a Masimo device. For more information, see ***Configuring Parameter Values*** on page 31.
14	**Instrument**	• The **Instrument** field displays the Masimo device type selected for setup connection with MICT.
15	**Status**	• The **Status** field displays successful or failed status of **Read**, **Write**, or **Remove Profile** actions.
16	**Details**	• The **Details** field displays messages about **Read** or **Write** actions in progress and/or completed.
17	**Progress Bar**	• The **Progress Bar** displays completed progress of **Read** or **Write** actions.

Serial and Network Cables

The cables listed below are used to connect Masimo devices to the MICT host computer. If an adapter is required, it must be purchased separately.

Description	Image
USB-Null Modem Cable *Root and Rad-97*	
USB-to-Serial Adapter *Radical-7 docked to RDS (Radical Docking Station)*	
Ethernet Cable *Root and Rad-97*	

Description	Image
Data Transfer Download Cable Rad-67 *Rad-67* *Note: requires the USB-Null Modem Cable*	

Chapter 2: Installing and Uninstalling MICT

The host computer must have a minimum of Windows 7 and at least one USB port to install MICT.

Installing MICT

To install MICT on a host computer:

1. Remove the USB from the packaging.
2. Insert the USB into a USB port on the host computer.
3. Locate the *setup.exe* file.
4. Double-click the *setup.exe* file to start the installation process.
5. By default a Desktop Shortcut to MICT is created. If this is not desired, uncheck the box next to "Create a desktop shortcut". Click **Next** to continue.
6. Click **Install** to continue with the installation, or click **Back** to review or change any settings.
7. By default, the check box to "Launch MICT" is selected (de-select if desired).
8. When MICT is installed, click **Finish**. The MICT application will open.

Uninstalling MICT

To remove MICT from a host computer:

1. Locate the MICT *Uninstall.exe* file in *C:\MICT*.
2. Double-click the MICT *Uninstall.exe* file to start the process to uninstall MICT.
3. Click **Yes** to completely remove MICT and all of its components, or click **No** to cancel.
4. Click **OK** after MICT has been successfully removed.

View MICT Software Version

To view the MICT software version installed on the host computer:

1. Open the MICT application.
2. Click **Help** in the menu bar.
3. Select **About MICT**. The pop-up window displays the MICT version and copyright date.

Chapter 3: Setting Up

Connecting MICT to a Masimo Device

This chapter explains how to connect the MICT host computer to a Masimo device using either serial or network connectivity. After establishing a connection, MICT can be used to configure Masimo device settings or download trends.

- See ***Serial Connectivity*** on page 18. For more information, see *When to Use Serial Connectivity with MICT* below.
- See ***Network Connectivity*** on page 24. For more information, see *When to Use Network Connectivity with MICT* below.

When to Use Serial Connectivity with MICT

- If a USB or RS-232 serial cable is available, quickly connect the MICT host computer to a Masimo device.
- Serial connectivity is required if a Masimo device is not yet configured for network connection.
- Serial connectivity can be used to re-configure an existing network connection on a Masimo device.
- After establishing a serial connection, MICT can be used to configure Masimo device settings or download trends.

When to Use Network Connectivity with MICT

- If a wireless or hard-wired network is available, remotely connect the MICT host computer to a Masimo device.
- Network connectivity can be used to re-configure an existing network connection on a Masimo device.
- After establishing network connection, MICT can be used to configure Masimo device settings or download trends.

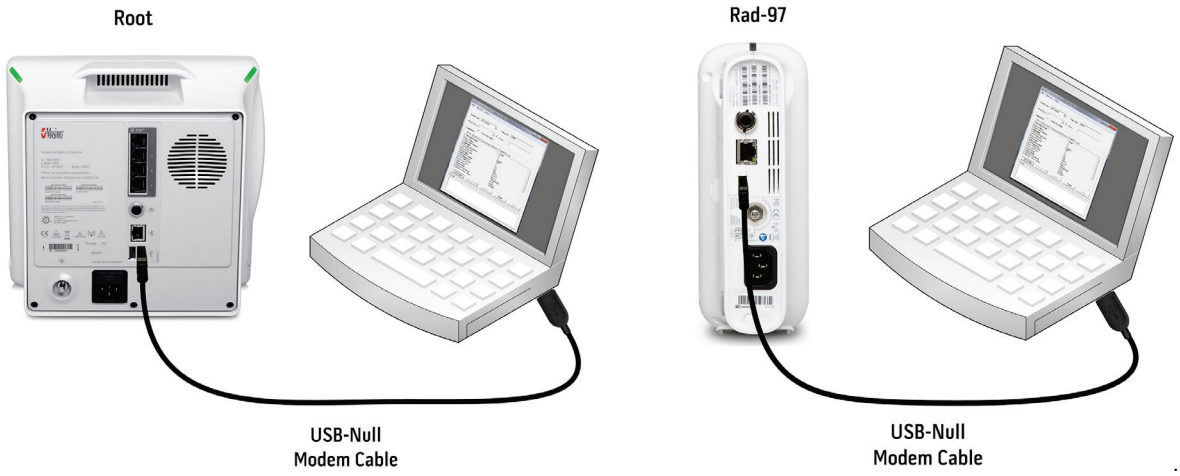
Serial Connectivity

- See ***Root and Rad-97 Serial Connectivity*** on page 18.
- See ***Radical-7 Serial Connectivity*** on page 20.
- See ***Rad-67 Serial Connectivity*** on page 22.

Root and Rad-97 Serial Connectivity

Complete the instructions below to connect Root or Rad-97 to the MICT host computer using serial connectivity. For more information, see ***Appendix A: Compatible Masimo Devices*** on page 53.

1. Connect the USB-Null Modem Cable between the Masimo device and the MICT host computer. See the example setups below. For more information about cables, see ***Serial and Network Cables*** on page 13.

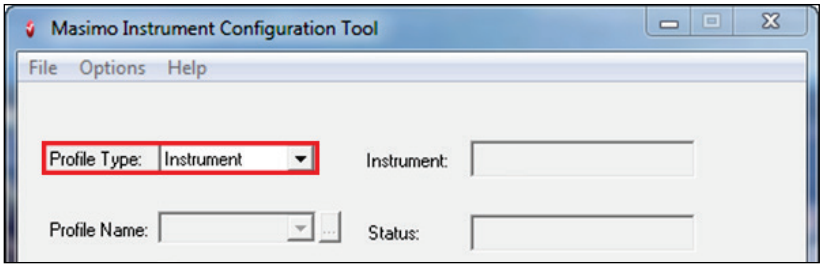


2. On the Masimo device home screen, press the **Main Menu** options icon .
3. Select **Device Settings** .
4. Select **Device Output** .
5. In the **Device Output** screen, select **IAP** for the USB Ports, then press **OK**.
6. Set the baud rate:
   - Go back to the **Device Settings** menu.
   - Select **Access Control** .
   - Press the 123 key.

- When the numeric screen displays, enter the following numbers: **6 2 7 4**
- Press **Enter**  .

- In the **Access Control** menu, select a desired **USB Port Baud Rate**. For more information about baud rates, see the Masimo device operator's manual and ***Appendix B: Device Baud Rates*** on page 55.
- Power cycle the device if the baud rate is changed.

7. Open the MICT application.
8. In the **Profile Type** field, select **Instrument**.



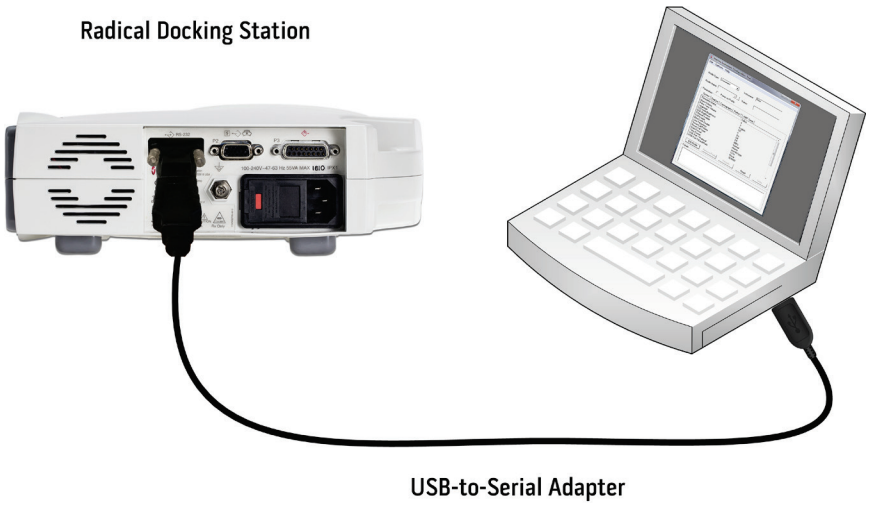
9. In the MICT menu bar, click **Options**.
10. In the options menu, select **Setup Connection**.
11. In the **Connection** window:
    - In the *Instrument* field, select either **Root** or **Rad-97**.
    - In the *Connection* field, select **Serial**.
    - Click the **Config** button to open the **Serial Configuration** window.
12. In the **Serial Configuration** window:
    - In the *Port* field, verify a COM port has been automatically selected.

      Note: If a COM port is not automatically selected, click the drop-down arrow and select a COM port. If no COM port is available in the drop-down menu, check the USB connections and re-open the **Serial Configuration** window.
    - In the *Baud Rate* field, select a **Baud Rate**. The baud rate must match the USB baud rate setting in step 6.
    - Click **OK** to close the **Serial Configuration** window.
13. Click **OK** to close the **Connection** window. Connecting MICT to a Masimo device is complete. After completing serial connectivity, perform one of these tasks:
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Root and Rad-97 Hard-Wired Network Connectivity*** on page 24 to connect MICT to a Masimo device through an Ethernet network.
    - See ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24 to connect MICT to a Masimo device through a WiFi network.

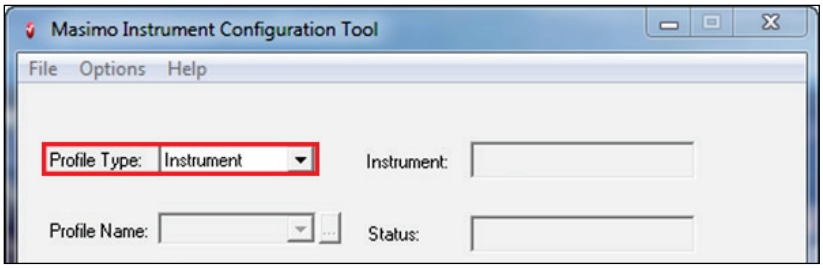
Radical-7 Serial Connectivity

Complete the instructions below to connect Radical-7 to the MICT host computer using serial connectivity. For more information, see ***Appendix A: Compatible Masimo Devices*** on page 53.

1. Power ON the Radical-7.
2. Snap the Radical-7 into the RDS Docking Station.
3. Connect the USB-to-Serial Adapter between the docking station and the MICT host computer. See the example setup below. For more information about cables, see ***Serial and Network Cables*** on page 13.



4. On the Radical-7 home screen, press the **Main Menu** options icon .
5. Select **Device Settings** .
6. Select **Device Output** .
7. In the **Device Output** screen, set the serial output protocol and baud rate.
   - In the *serial* field, select either **Data Collection** or **IAP** output (only one will be available).
   - Scroll to the bottom of the screen and select a baud rate. If no baud rate selection is available, then the following baud rates are automatically applied (see ***Appendix B: Device Baud Rates*** on page 55):
     - **Data Collection**: 57600, or
     - **IAP**: 9600
8. At the bottom of the **Device Output** screen, press **OK**.
9. Open the MICT application.
10. In **Profile Type**, select **Instrument**.



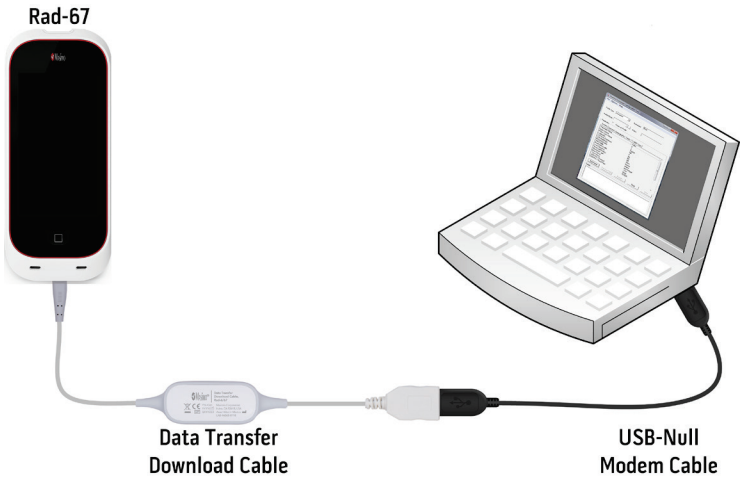
11. In the MICT menu bar, click **Options**.
12. In the options menu, select **Setup Connection**.
13. In the **Connection** window:
    - In the *Instrument* field, select **Radical-7**.
    - In the *Connection* field, select **Serial**.
    - Click the **Config** button to open the **Serial Configuration** window.
14. In the **Serial Configuration** window:
    - In the *Port* field, verify a COM port has been automatically selected.

      Note: If a COM port is not automatically selected, click the drop-down arrow and select a COM port. If no COM port is available in the drop-down menu, check the USB connections and re-open the **Serial Configuration** window.
    - In the *Baud Rate* field, select one of the following baud rates selected in step 7:
      - For **IAP** output, select **9600**, or
      - For **Data Collection** output, select **57600**.
    - Click **OK** to close the **Serial Configuration** window.
15. Click **OK** to close the **Connection** window. Connecting MICT to a Masimo device is complete. After completing serial connectivity, perform one of these tasks:
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24 to connect MICT to a Masimo device through a WiFi network.

Rad-67 Serial Connectivity

Complete the instructions below to connect Rad-67 to the MICT host computer using serial connectivity. For more information, see ***Appendix A: Compatible Masimo Devices*** on page 53.

1. Connect the Rad-67 to the MICT host computer using the Data Transfer Download Cable Rad-6/67 and USB-Null Modem Cable. See the example setup below. For more information about cables, see ***Serial and Network Cables*** on page 13.



2. On the Masimo device home screen, press the **Main Menu** options icon .
3. Select **Device Settings** .
4. Select **Access Control** .
5. Press the 123 key.

6. When the numeric screen displays, enter the following numbers: **6 2 7 4**
7. Press **Enter** .

8. In the **Access Control** menu, select a **USB Port Baud Rate**. For more information about baud rates, see the Masimo device operator's manual and ***Appendix B: Device Baud Rates*** on page 55.
9. Power cycle the device if the baud rate is changed.
10. Open the MICT application.
11. For **Profile Type**, select **Instrument**.
12. In the MICT menu bar, click **Options**.
13. In the options menu, select **Setup Connection**.
14. In the **Connection** window:
    - In the *Instrument* field, select **Rad-67**.
    - In the *Connection* field, select **Serial**.
    - Click the **Config** button to open the **Serial Configuration** window.
15. In the **Serial Configuration** window:
    - In the *Port* field, verify a COM port has been automatically selected.

      Note: If a COM port does not appear, click the drop-down arrow and select a COM port. If no COM port is available in the drop-down window, check the USB connections and re-open the **Serial Configuration** window.
    - In the *Baud Rate* field, select the baud rate that matches the baud rate setting in step 8.
    - Click **OK** to close the **Serial Configuration** window.
16. Click **OK** to close the **Connection** window. Connecting MICT to Rad-67 is complete. After completing serial connectivity, perform one of these tasks:
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Root and Rad-97 Hard-Wired Network Connectivity*** on page 24 to connect MICT to a Masimo device through an Ethernet network.
    - See ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24 to connect MICT to a Masimo device through a WiFi network.

Network Connectivity

The Masimo device and MICT host computer must be connected to the same network for successful communication.

- See ***Root/Root with NIBPT and Rad-97 Hard-Wired Network Connectivity*** on page 26.
- See ***Root/Root with NIBPT, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24.
- See ***Rad-67 and Rad-97 Secured Network Connectivity*** on page 28.
- See ***Radius-7 Wireless Network Connectivity*** on page 28.

Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity

Complete the instructions below to connect Root, Rad-97, Rad-67, or Radical-7 to the MICT host computer using wireless network connectivity.

Note: The Masimo device and MICT host computer must be connected to the same network for successful communication.

Note: Radius-7 needs a Root device for wireless configuration. See ***Configuring Radius-7 for Wireless Connection*** on page 28 after completing these instructions.

1. Setup the Masimo device for serial connectivity:
   - For Root or Rad-97, see ***Root and Rad-97 Serial Connectivity*** on page 18.
   - For Radical-7, see ***Radical-7 Serial Connectivity*** on page 20.
   - For Rad-67, see ***Rad-67 Serial Connectivity*** on page 22.
2. Verify the wireless configuration file name is *wifi.cfg*. To obtain a wireless configuration file, contact ***Masimo Technical Services*** on page 51.

   Note: The configuration file name must be *wifi.cfg* for successful upload to a Masimo device.
3. Place the *wifi.cfg* file in the proper MICT folder.
   - For Root, Radical-7, Rad-67, or Rad-97, place the *wifi.cfg* file in *C:\MICT\Configs*.
   - For Radius-7, place the *wifi.cfg* file in *C:\MICT\Falcon\Configs*.

     Note: The MICT folders are automatically created during the installation process.
4. Open the MICT application.
5. In the MICT menu bar, click **Options**.
6. In the options menu, select **Send TCP/IP Config**:
   - If successful, *Write Successful* appears in the **Status** field and *WiFi Config File successfully sent* appear in the **Details** field.
   - If unsuccessful, *Write Failed* appears in the **Status** field. Verify the filename is correct (*wifi.cfg*); check the serial connection is correct; close and reopen MICT; and re-send the *wifi.cfg* file. If still unsuccessful, see ***Messages*** on page 45 and ***Troubleshooting*** on page 47.
7. On the Masimo device home screen, press the **Main Menu** options icon  .
8. Select **Device Settings**  .
9. Select **Wi-Fi**  .
10. Toggle Wi-Fi **OFF**, then **ON**:
    - If *status* displays **Interface Down**, cycle the device power OFF and ON. If still not connecting to the wireless network, see ***Messages*** on page 45 and ***Troubleshooting*** on page 47.
    - If *status* displays **Interface Up** but the incorrect SSID (network name) is displayed, then verify the information in the *wifi.cfg* file is saved correctly to *C:\MICT\Configs*. If still not connecting to wireless network, see ***Messages*** on page 45 and ***Troubleshooting*** on page 47.

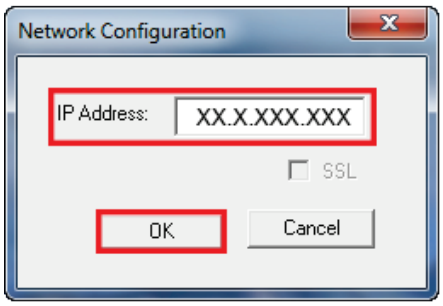
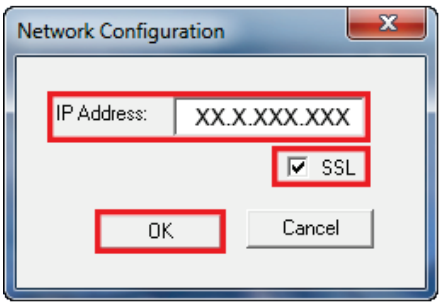
- If *status* displays **Interface Up** and the correct SSID (network name) is displayed, then the device is ready for wireless network connection.

11. Copy the device IP address.

12. In the MICT menu bar, click **Options**.
13. In the options menu, select **Setup Connection**.
14. In the **Connection** window:
    - In the *Instrument* field, select **Root**, **Rad-97**, **Rad-67** or **Radical-7**.
    - In the *Connection* field, select **TCP**.
    - Click the **Config** button to open the **Network Configuration** window.

15. In the **Network Configuration** window:
    - In the IP Address field, enter the IP address from step 11.
    - Click **OK**.

      Optional: Select **SSL** to set up a secured connection for Rad-67 or Rad-97. If SSL is selected, see ***Rad-67 and Rad-97 Secured Network Connectivity*** on page 28 after completing the instructions in this section.

Root and Radical-7	Rad-67 and Rad-97
	

16. Click **OK** to close the **Connection** window. Connecting MICT to a Masimo device is complete. After completing serial connectivity, perform one of these tasks:
    - If SSL was selected for Rad-67 or Rad-97, see ***Rad-67 and Rad-97 Secured Network Connectivity*** on page 28.
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Connecting to Masimo Systems*** on page 41 to connect to Patient SafetyNet.
    - See ***Connecting to Kite*** on page 42.

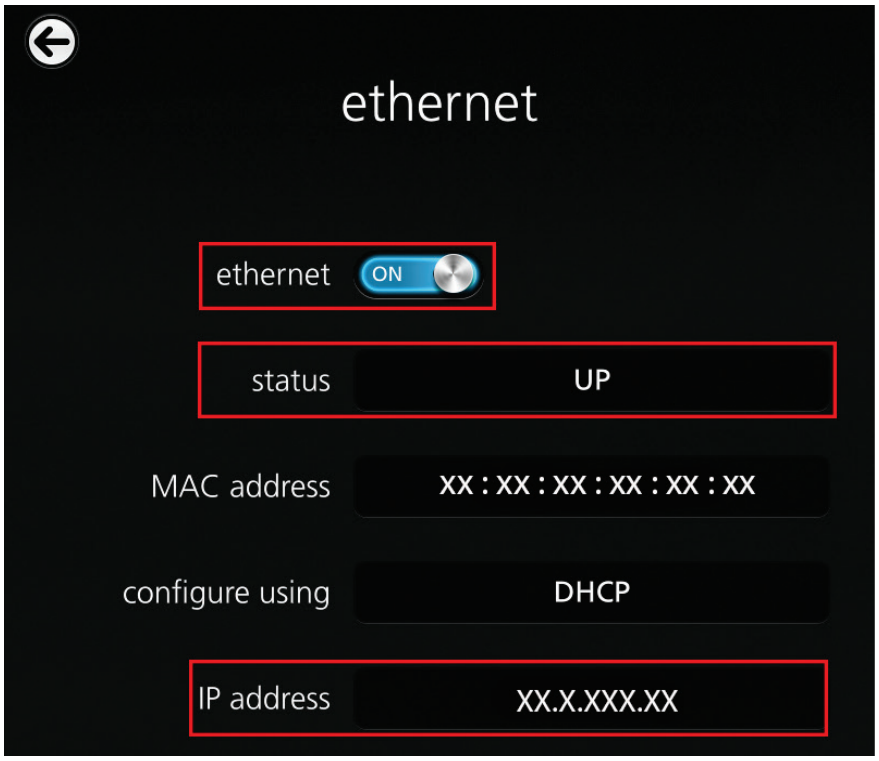
Root and Rad-97 Hard-Wired Network Connectivity

Complete the instructions below to connect Root or Rad-97 to the MICT host computer using hard-wired network connectivity.

Note: The Masimo device and MICT host computer must be connected to the same network for successful communication.

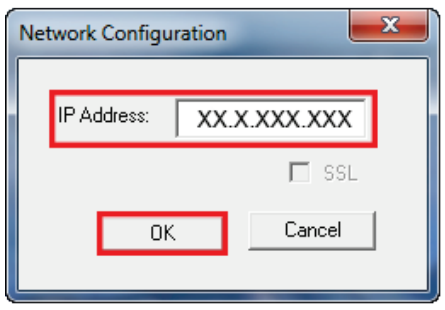
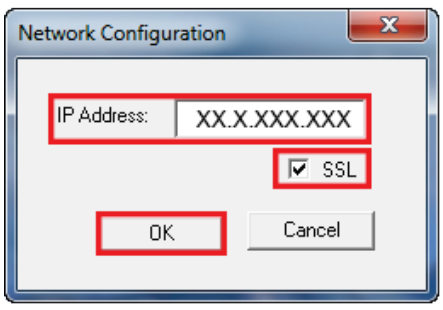
1. Use Ethernet cables to connect the Masimo device and host computer to the network. For more information about cables, see ***Serial and Network Cables*** on page 13.
2. On the Masimo device home screen, press the **Main Menu** options icon .
3. Select **Device Settings** .
4. Select **Ethernet** .
5. Toggle ethernet **OFF**, then **ON**:
    - If the *status* is **DOWN**, cycle the device power OFF and ON. If the status is still **DOWN**, see ***Messages*** on page 45 and ***Troubleshooting*** on page 47.
    - If the *status* is **UP**, then the device is connected to the hard-wired network. Go to the next instruction.

6. Copy the **IP address**.



7. Open the MICT application.
8. In the MICT menu bar, click **Options**.
9. In the options menu, select **Setup Connection**.
10. In the **Connection** window:
    - In the *Instrument* field, select either **Root** or **Rad-97**.
    - In the *Connection* field, select **TCP**.
    - Click the **Config** button to open the **Network Configuration** window.
11. In the **Network Configuration** window, enter the Ethernet IP address.

    Optional: Select **SSL** if using a secured link to connect to Rad-97. If SSL is selected, see ***Rad-67 and Rad-97 Secured Network Connectivity*** on page 28 after completing the instructions in this section.
12. Click **OK**.

Root	Rad-97 with SSL
	

13. Click **OK** to close the **Connection** window. Connecting MICT to a Masimo device is complete. After completing serial connectivity, perform one of these tasks:
    - If SSL was selected for Rad-67 or Rad-97, see ***Rad-67 and Rad-97 Secured Network Connectivity*** on page 28.
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24 to connect MICT to a Masimo device through a WiFi network.
    - See ***Connecting to Masimo Systems*** on page 41 to connect to Patient SafetyNet.
    - See ***Connecting to Kite*** on page 42.

Rad-67 and Rad-97 Secured Network Connectivity

Complete the instructions below to connect Rad-67 or Rad-97 to the MICT host computer using a secured network connection.

Note: The Masimo device and MICT host computer must be connected to the same network for successful communication.

1. If Rad-67 or Rad-97 needs to be setup for wireless network connectivity, see ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24. If Rad-67 or Rad-97 is setup for wireless network connectivity, go to step 2.
2. Place the SSL certification files in the corresponding folders in *C:\MICT\SSL\Client* and *C:\MICT\SSL\Server*. To obtain SSL certification files, contact ***Masimo Technical Services*** on page 51.
3. Open the MICT application.
4. In the MICT menu bar, click **Options**.
5. In the options menu, select **Send SSL Config**. Configuring the Masimo device to a secured network connection is complete.After completing serial connectivity, perform one of these tasks:
    - See ***Operation*** on page 31 to configure Masimo device settings and download trends.
    - See ***Connecting to Masimo Systems*** on page 41 to connect to Patient SafetyNet.
    - See ***Connecting to Kite*** on page 42.

Radius-7 Wireless Network Connectivity

Radius-7 is configured for wireless connectivity using a Root device.For more information about Radius-7 or Root, refer to the ***Operator's Manual, Radius-7®***; ***Operator's Manual, Root®***; or ***Operator's Manual, Root® with noninvasive blood pressure and temperature***. Only Radius-7 Instrument Modules with Wi-Fi capability can be configured for wireless connectivity. The following equipment will be needed to configure Radius-7 to connect to a wireless network:

- Root Device
- Radius-7 Battery Module
- Radius-7 Battery Charging Adapter
- Radius-7 Instrument Module with Wi-Fi capability

To configure Radius-7 for wireless connectivity:

1. In the Root device, verify Bluetooth is toggled ON.
    - Press the **Main Menu** options icon  .
    - Select **Device Settings**  .
    - Select **Bluetooth**  .
    - Toggle Bluetooth to **ON**.

2. Dock the Radius-7 Battery Charging Adapter to the Root device.
3. Dock the Radius-7 Battery Module to the Radius-7 Battery Charging Adapter.
4. Complete the instructions for setting up Root for wireless connectivity. See ***Root, Rad-97, Rad-67, and Radical-7 Wireless Network Connectivity*** on page 24. Radius-7 will emit an auditory tone indicating wireless configuration is complete.
5. Verify Radius-7 successfully connects to a wireless network through the Root device:
   - Attach the Radius-7 Battery Module to a Radius-7 Instrument Module with Wi-Fi capability.
   - If the Wi-Fi icon on Radius-7 is blue  , then Radius-7 has successfully connected to a Wi-Fi network.
   - If the Wi-Fi icon on Radius-7 is green  , then Radius-7 has successfully connected to a Patient SafetyNet network.
   - If the Wi-Fi icon on Radius-7 is gray  , then Radius-7 is not connected to a network. In the Root device, toggle Bluetooth **OFF** then **ON**.
   - If the Wi-Fi icon does not appear on Radius-7, then toggle Bluetooth on the Root device **OFF** then **ON**.

   Note: Radius-7 is automatically configured to the same Patient SafetyNet server as the Root device during wireless configuration. To connect Root to Patient SafetyNet, see ***Connecting to Patient SafetyNet*** on page 41. For further information about Patient SafetyNet, see the ***Operator's Manual, Patient SafetyNet™ Supplemental Alarm System, Series 5.5.X.X***.

Chapter 4: Operation

This chapter describes how to configure a Masimo device and download trends using MICT. These instructions assume the user has installed MICT and connected MICT to a Masimo device. See ***Installing and Uninstalling MICT*** on page 15 and ***Connecting MICT to a Masimo Device*** on page 17.

Working with Parameter Values

Reading Parameter Values

Follow the instructions below to retrieve parameter values from a Masimo device to MICT. Retrieved parameter values displayed in MICT can be edited and written to a Masimo device or saved as a Workspace and written to multiple Masimo devices.

Note: MICT reads all patient profile and instrument parameter values from a Masimo device. MICT cannot read individual patient profile or instrument parameters from a Masimo device.

To read Masimo device parameter values:

1. Click the **Read** button 

. The following messages will be displayed in the **Status** and **Details** fields:
    - The **Status** field displays *Read successful* if parameter values were successfully read from the device. All parameter values are accessible for viewing and editing in MICT.
    - The **Status** field displays *Read failed* if parameter values were NOT read from the device. See ***Messages*** on page 45 and ***Troubleshooting*** on page 47.
    - The **Details** field displays *Reading profiles to C:\MICT\InDir.* while reading is in progress.
2. Reading parameter values is complete. To write parameter values to a Masimo device, see ***Configuring Parameter Values*** on page 31. To save MICT parameter values as a Workspace to configure multiple Masimo devices, see ***Saving and Loading Workspaces*** on page 36.

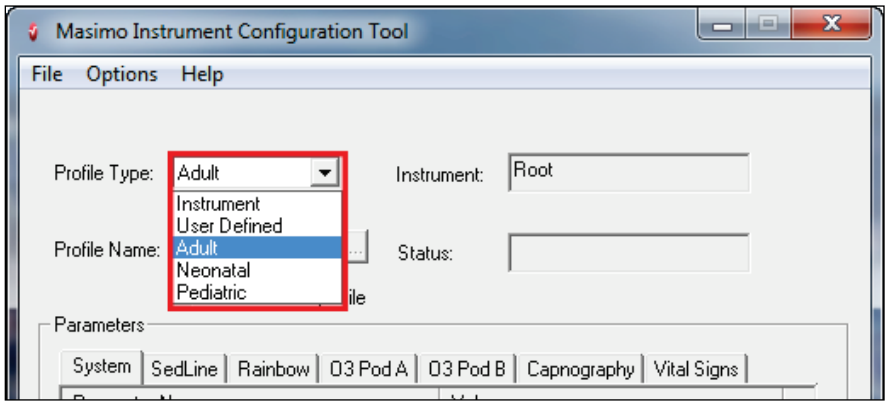
Configuring Parameter Values

Follow the instructions below to *Write* parameter values from MICT to a Masimo device default profile or user defined profile. The parameter values edited for a profile in be saved as a Workspace to configure multiple Masimo device profiles. For more information, see ***Saving and Loading Workspaces*** on page 36.

To configure default profile parameter values:

1. In the **Profile Type** field, select a default profile available in the drop-down menu. If selecting **User Defined**, go to the next set of instructions.

    Note: CCHD is available only for Rad-97 devices. Vital Signs Check is available only for Root devices.

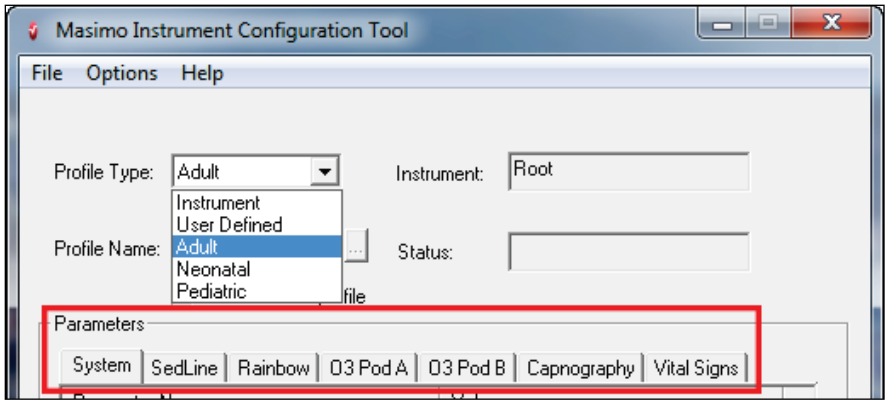


2. Click the **Edit Profile** button 

.

    WARNING: After clicking **Edit Profile**, the profile parameter values can be edited and written to the Masimo device profile to overwrite existing profile parameter values. All other profile types remain inaccessible for editing unless selected as described in steps 1 and 2.

3. In the **Parameters** field:
   - Select a parameter tab.



   - Double-click in a parameter value field.
   - Enter/select the desired parameter value.

4. After all desired parameter values have been entered, click **Write** 

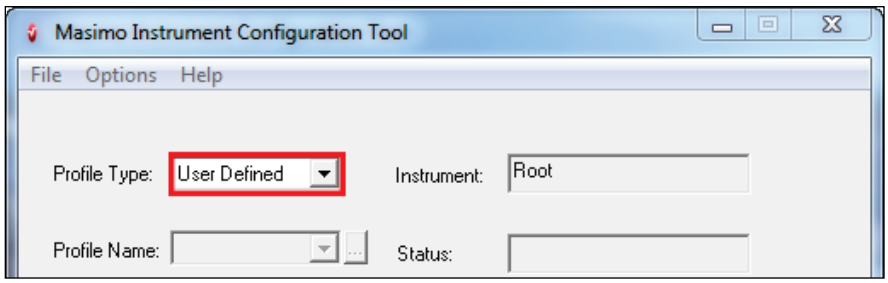
The following messages will be displayed in the **Status** and **Details** fields:
   - The **Status** field displays *Write successful* if parameter values were successfully written to the Masimo device, or
   - The **Status** field displays *Write failed* if parameter values were NOT written to the Masimo device. See ***Messages*** on page 45 and ***Troubleshooting*** on page 47.

   Note: If writing to a Radical-7 using an RS-232 connection, wait approximately 30 seconds after writing is successful before performing any other actions.

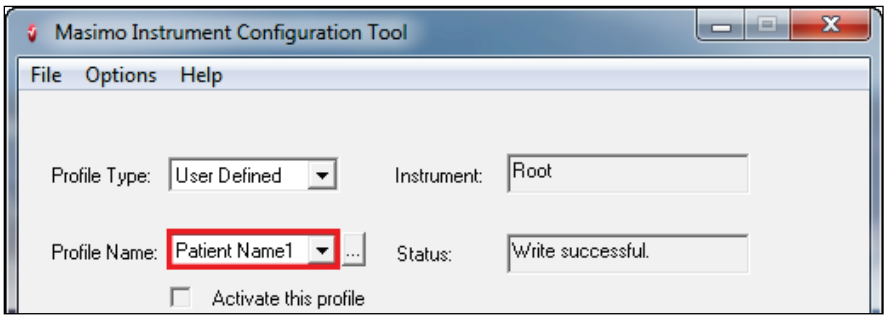
   - The **Details** field displays *Temporary files written to C:\MICT\OutDir.* while writing is in progress.
5. After a successful write, power cycle the Masimo device.
6. Verify the edited parameter values have been configured in the Masimo device.

To configure user defined profile parameters:

1. In the **Profile Type** field, select **User Defined**.



2. In the **Profile Name** field, select a user defined profile. If no user defined profiles exist, see ***Working with User Defined Profiles*** on page 33.



3. Repeat steps 3 through 5 from the previous section.

Working with User Defined Profiles

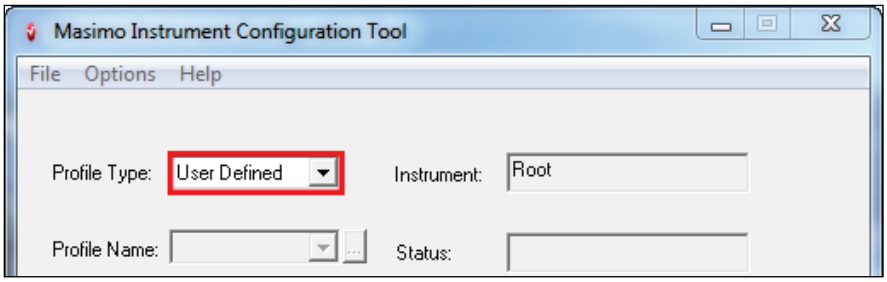
MICT can be used to configure up to 8 user defined profiles in a Masimo device. This section includes the following topics:

- ***Adding a User Defined Profile*** on page 33
- ***Editing a User Defined Profile Name*** on page 34
- ***Removing a User Defined Profile*** on page 35

Adding a User Defined Profile

To add a user defined profile to a Masimo device:

1. In the **Profile Type** field, select **User Defined**.

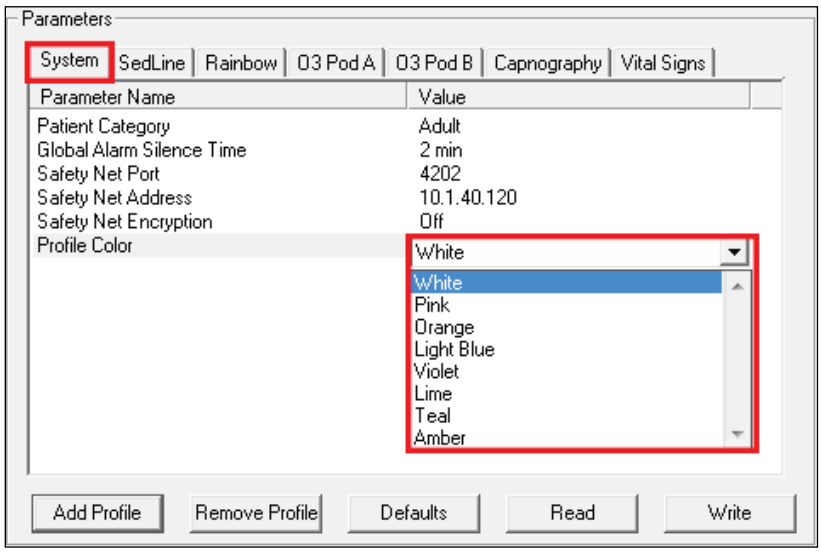


2. Click **Add Profile**.

   WARNING: After clicking **Add Profile**, the parameter value fields can be edited and written to the Masimo device to overwrite existing parameter values. All other profile types remain inaccessible for editing unless added as described in steps 1 and 2.

3. In the **Add Profile** window:
   - In the *Profile Name* field, enter a the desired profile name. This name will be displayed on the Masimo device when the profile is active.
   - Click **OK**. Repeat steps 2 through 3 to add multiple profiles (maximum 8 user defined profiles).
4. Assign a Profile LED color to the profile:
   - In the **Parameters** field, select the **System** tab.
   - Click the **Profile Color** drop-down menu.

- Select a color.

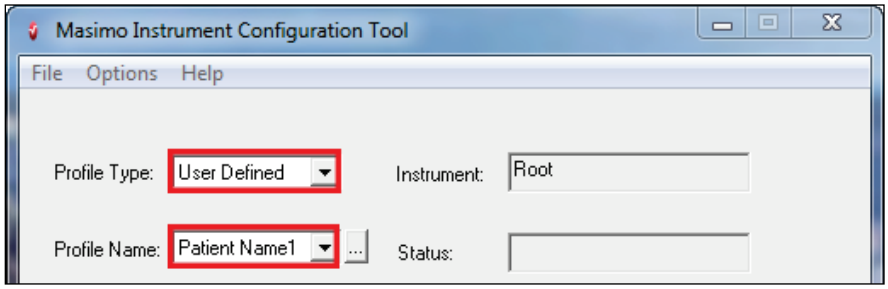


5. Edit parameter values as desire, then click **Write**  . Upon successful completion, the **Status** field displays *Write successful*.
6. Power cycle the device and verify the added profile appears in the device.

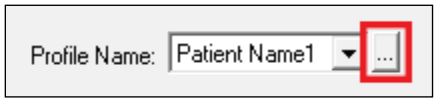
Editing a User Defined Profile Name

To edit a User Defined profile name:

1. In the **Profile Type** field, select **User Defined**.
2. In the **Profile Name** field, select a profile.



3. Next to the **Profile Name** field, click the **Edit Profile** button  .

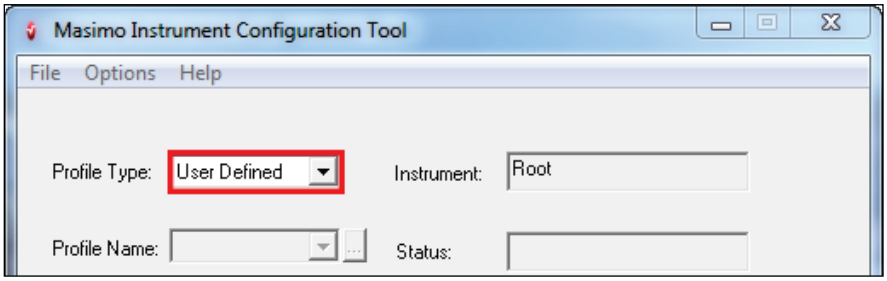


4. In the **Edit Profile** window:
   - In the *Profile Name* field, edit the profile name.
   - Click **OK**. Editing a user defined profile name is complete.

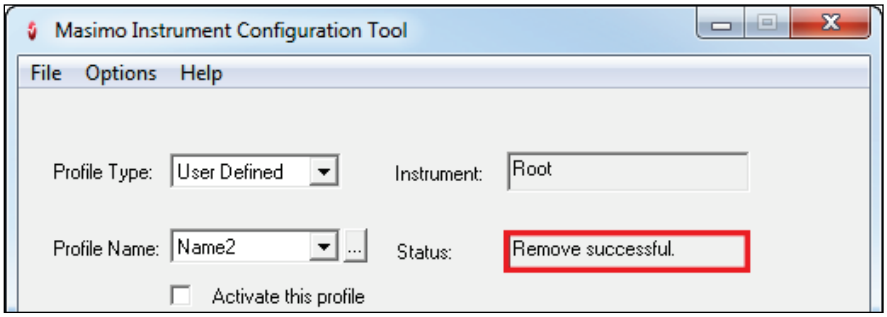
Removing a User Defined Profile

To remove a User Defined profile:

1. In the **Profile Type** field, select **User Defined**.



2. Click the **Remove Profile** button  . *Remove successful* will appear in the **Status** field.



3. Verify the profile has been removed from the Masimo device:
   - On the Masimo device home screen, press the **Main Menu** options icon  .
   - Select **Profiles**  .
   - In *profile name*, verify the profile has been removed from the device.

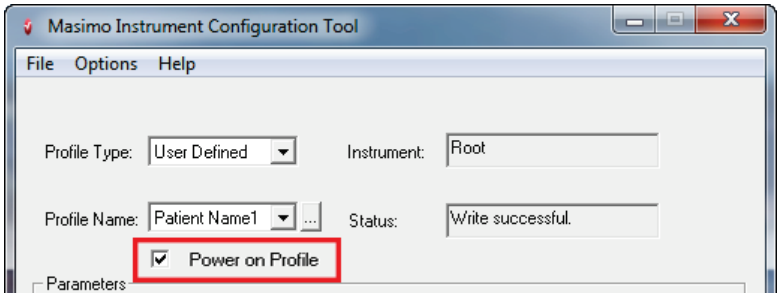
Power on Profile

Follow the instructions below to use the *Power on Profile* option to set a patient profile to automatically appear on a Masimo device home screen after one power cycle.

Note: *Power on Profile* sets the patient profile after only one power cycle. It does not configure the *Power on Profile* setting in the Masimo device **Access Control** menu.

1. In the **Profile Type** field, select a profile.
2. Select **Power on Profile**.

   Note: If **Power on Profile** is inaccessible, click the **Edit Profile** button.



3. Click the **Write** button 

.
4. Power cycle the Masimo device. After the device powers ON, verify the desired profile is displayed on the home screen.

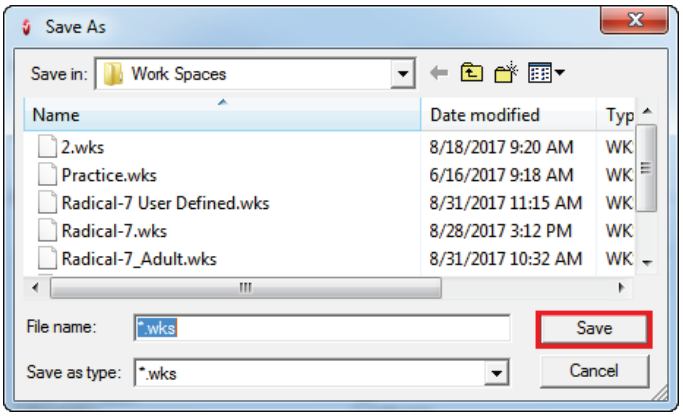
Saving and Loading a Workspace

Follow the instructions below to save or load a workspace. Workspaces are designed to save MICT parameter values and setup connections for an entire Masimo device. This allows for fast replication of complete Masimo device configuration to multiple Masimo devices.

To save a Workspace:

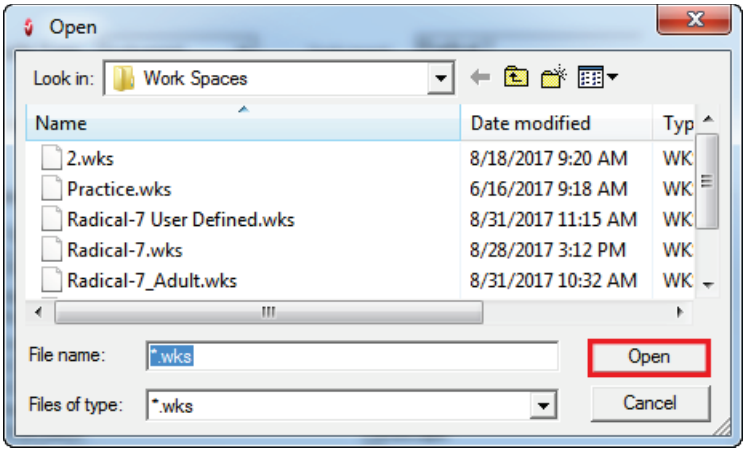
1. Verify all desired parameter values and setup connections are entered in MICT.

   Note: Any profile type not selected for editing will be saved in the Workspace with default parameter values.
2. In the MICT menu bar, click **File**.
3. Select **Save Workspace**.
4. In the **Save As** window:
   - Select the desired folder location and enter a Workspace filename.
   - Click **Save**. The Masimo device parameter values will be saved as a *.wks* file. Saving a workspace is complete.



To load a saved Workspace into MICT:

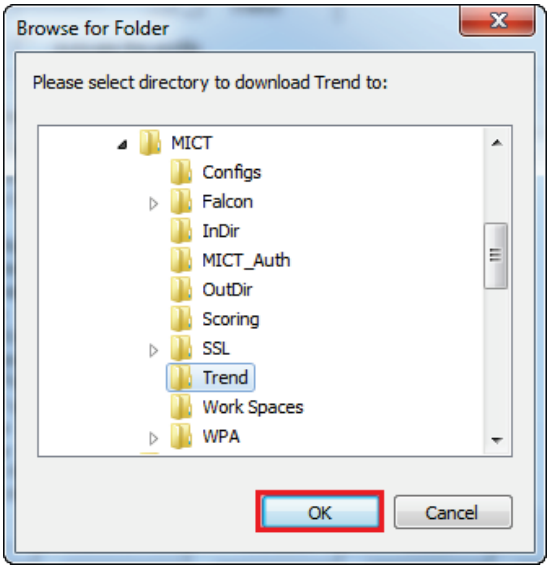
1. In the MICT menu bar, click **File**.
2. Select **Load Workspace**.
3. In the **Open** window:
   - Locate the saved Workspace file.
   - Click **Open**. The saved workspace parameter values and setup connections will load into MICT. MICT is ready to write to a Masimo device.
     Note: While the parameter values are being loaded, all unedited parameters will be set to default values and listed in the **Details** field.



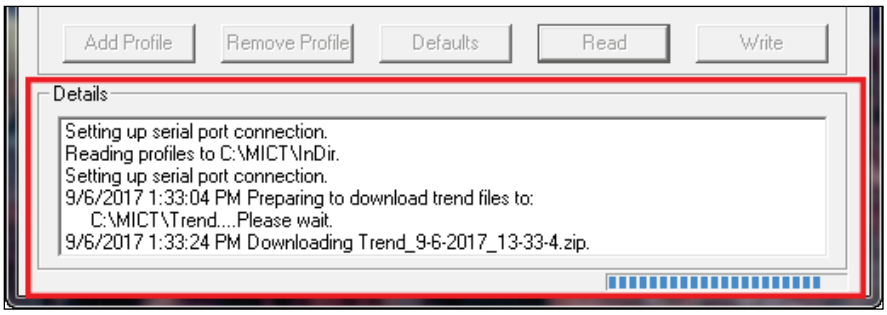
Downloading Trends

Follow the instruction below to download parameter trends to an Excel spreadsheet.

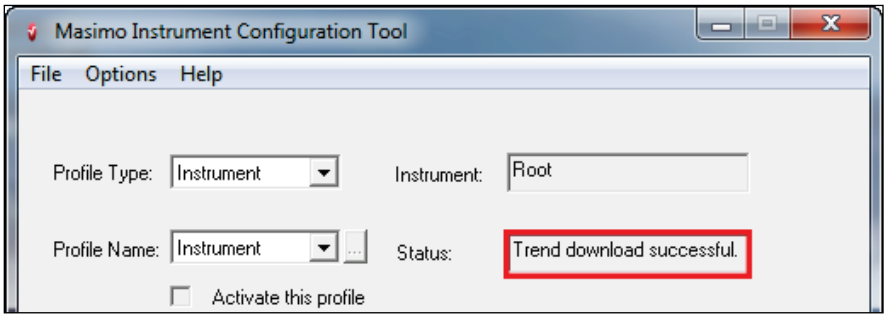
1. In the MICT menu bar, click **Options.**
2. Select **Download Trend**.
3. In the **Browse for Folder** window:
   - Select a folder to save the download files.
   - Click **OK**.



While the trend is being downloaded, the **Details** field and the **Progress Bar** will display the download status.



4. After the download is successfully completed, the **Status** field displays the message *Trend Download Successful*.



5. Navigate to the folder specified in step 3 and locate the trend spreadsheet file.
6. Open the spreadsheet to verify the trend data.

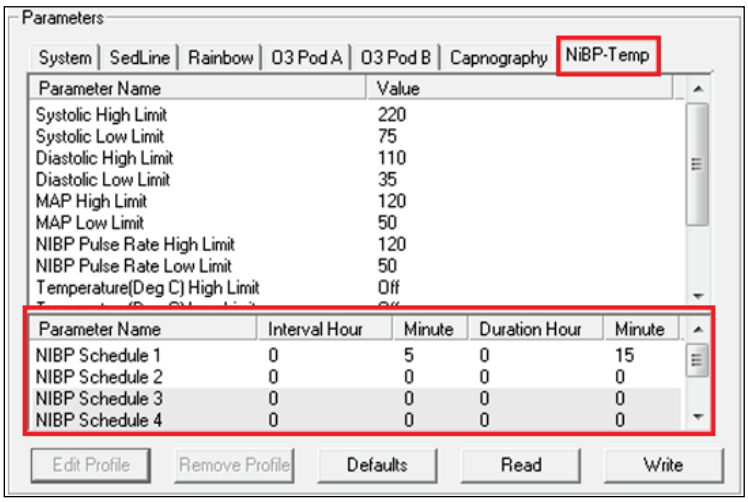
Configuring NIBP Schedules

Follow the instructions below to configure a customized NIBP schedule. A patient profile can have up to 5 customized NIBP schedules. For more information about NIBP schedules, see the ***Operator's Manual, Root with Noninvasive Blood Pressure and Temperature***.

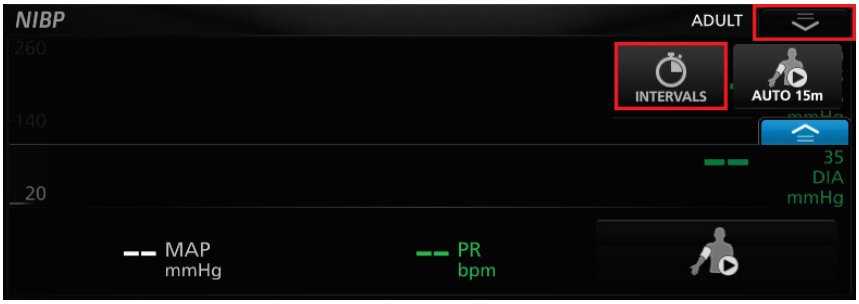
Note: MICT does not configure Rad-97 NIBP schedules.

1. In the **Profile Type** field, select a patient profile.
2. Click the **Edit Profile** button  If editing a user defined profile, select the profile name in the **Profile Name** field.
3. In the **Parameters** field:
   - Select the **NiBP-Temp** tab.
   - Set **NIBP Schedules**:
     - In **NIBP Schedule 1**, click in the **Duration Hour** field and **Minute** field to enter desired settings.
     - Click in the **Interval Hour** and **Minute** fields to select desired settings.

- Repeat for **NIBP Schedule 2** through **NIBP Schedule 5** as needed.

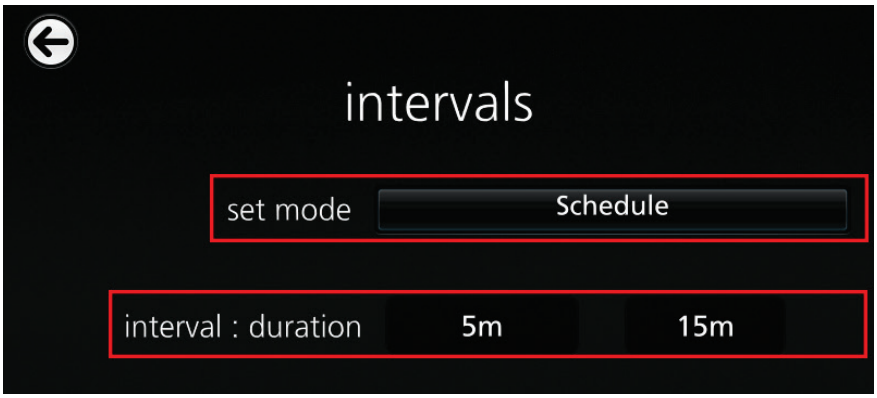


4. Click the **Write** button  . *Write Successful* appears in the **Status** field when device configuration is completed.
5. Cycle the Root device power OFF then ON.
6. Verify the NIBP schedule was updated in the Root device:
   - In the Root device, select the profile edited in steps 1 through 3.
   - On the Root device main screen, in the NIBP window, press the **Action Menu**  .
   - Press **Intervals**.



   - On the **intervals** screen:
     - In the **set mode** field, select **Schedule**.
     - In the **interval : duration** field, verify the settings match the desired settings in step 3.

- Press **OK**. Configuring NIBP schedules is complete.



Sending a Scoring Template

Follow the instructions below to send a *PatientScoreTemplate.xml* file to a Root device for Early Warning Scores (EWS) and contributors configuration. The MICT option **Send Scoring Template** is supported by all Root software versions. For more information about EWS and contributors, see the ***Addendum, Root with EWS***.

1. Request a *PatientScoreTemplate.xml* from Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
2. Place the updated *PatientScoreTemplate.xml* file in *C:\MICT\Scoring*.
3. In the MICT menu bar, click **Options**.
4. In the options menu, select **Send Scoring Template**:
   - The **Status** field displays *Write Successful* after the file has been successfully sent to the device.
   - The **Details** field displays *Attempting to send Scoring files from C:\MICT\Scoring*.
5. Configuring EWS in Root is complete. Enable EWS in Root to verify configured scores and contributors appear on the Root home screen:
   - In the Root home screen, press the **Main Menu** options icon .
   - Select **Layout** .
   - Select Active Channels .
   - Slide EWS to enabled. EWS scores and contributors will appear on the Root home screen.

Sending a Policy File

Follow the instructions below to send a policy file to a Root device. Policy files grant permissions to configure EWS (Early Warning Scores), Vital Signs Check mode, and/or EMR Push in a Root device. The MICT option **Send Policy File** is supported by Root devices with a software version of 1.9.x.x or later. To configure EWS in Root devices with software versions before 1.9.x.x, see ***Sending a Scoring Template*** on page 40.

1. Request the policy file (.json file type) from Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
2. Place the policy file in the folder location *C:\MICT\Policy*.
3. In the MICT menu bar, click **Options**.
4. Select **Send Policy File**:
   - The **Details** field displays the message *Attempting to send policy files from C:\MICT\Policy*.
   - The **Status** field displays the message *Write Successful* after the file has been successfully sent to the device.
5. Sending a policy file is complete. For more information:
   - See ***Root with Vital Signs Check*** on page 43.

- See the ***Operator's Manual, Root*** or ***Operator's Manual, Root with noninvasive blood pressure and temperature***.
- See the ***Addendum, Root with EWS***.

Connecting to Masimo Systems

Connecting to Patient SafetyNet

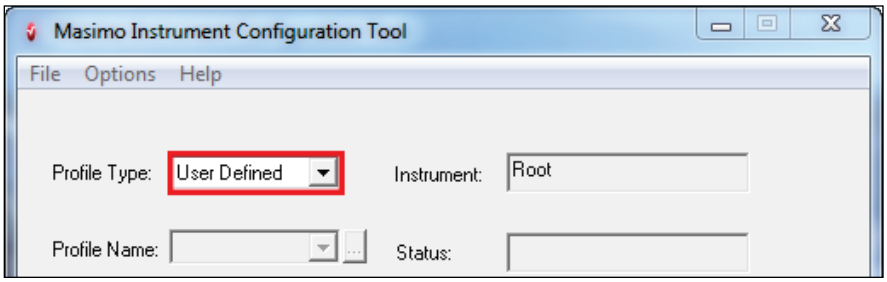
MICT can configure Masimo device patient profiles (Adult, Pediatric, Neonatal, and User Defined) to connect to Patient SafetyNet. For further information about Patient SafetyNet, see the ***Operator's Manual, Patient SafetyNet™ Supplemental Alarm System, Series 5.5.X.X***.

To configure a Masimo device patient profile to connect to Patient SafetyNet:

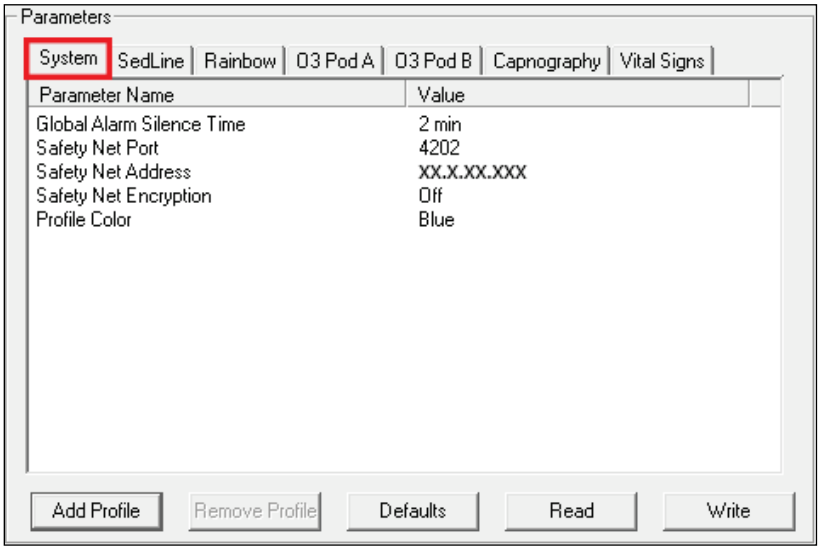
1. Ensure MICT and the Masimo device are setup for network connectivity. See ***Network Connectivity*** on page 24.
2. In the MICT application, for **Profile Type**, select **User Defined**, **Adult**, **Neonatal**, **Pediatric, CCHD**, or **Vital Signs Check**.

   Note: CCHD is available only for Rad-97 devices.

   Note: Vital Signs Check is available only for Root/Root with NIBPT devices.

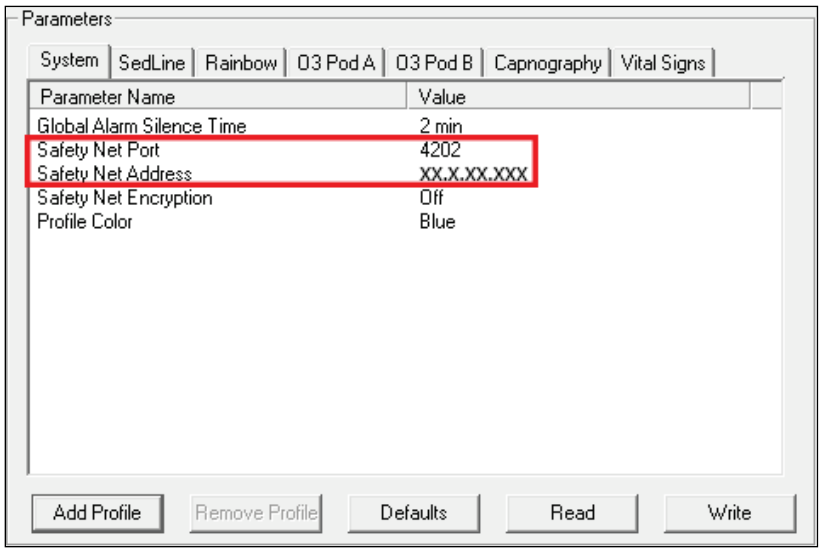


3. Click **Edit Profile**  . For User Defined profiles, select a **Profile Name**.
4. In **Parameters**, click the **System** tab.



5. In **Safety Net Port**, enter:
   - 4201 for Patient SafetyNet versions 4.X.X.X or older, or
   - 4202 for Patient SafetyNet versions 5.5.X.X or newer.

6. In **Safety Net Address**, enter the Patient SafetyNet destination IP address.



7. Click **Write** 

8. On the Masimo device home screen, press the **Main Menu** options icon  .

9. Select **Device Settings**  .

10. Select **Wi-Fi**  or **Ethernet**  .

11. Toggle Wi-Fi/Ethernet **OFF**, then **ON**.

12. Verify the correct destination IP address is displayed and the Wi-Fi icon on the Masimo device home screen is green  .

    - If the correct destination IP address is displayed and the Wi-Fi icon is green  , then the device is connected to Patient SafetyNet.
    - If the incorrect destination IP address is displayed and/or if the Wi-Fi icon is blue  , then the device is NOT connected to Patient SafetyNet. Cycle the device power **OFF** then **ON**. If still not connected, see ***Messages*** on page 45 and ***Troubleshooting*** on page 47.

Connecting to Kite

A Masimo device is able to connect to Kite after being configured for network connectivity using MICT. See ***Network Connectivity*** on page 24.

For more information about setting up Kite, see ***Operator's Manual, Kite Supplemental Display***.

Note: The Masimo device and MICT host computer must be connected to the same network for successful communication.

Rad-97 CCHD Mode

MICT is used to download screening results data from CCHD mode and configure CCHD mode patient profiles to connect to Patient SafetyNet.

Note: CCHD is available in countries where cleared. For more information about CCHD, refer to ***Addendum, Rad-97 Operator's Manual: Critical Congenital Heart Disease Screening: Eve™***.

Perform one of the following tasks after enabling CCHD mode in Rad-97:

- Download screening results data from patient profiles in CCHD mode. See ***Downloading Trends*** on page 37.
- Configure patient profiles in CCHD mode for Patient SafetyNet connectivity. See ***Connecting to Masimo Systems*** on page 41.

Root Vital Signs Check

MICT is used to configure patient profile parameter values, Patient SafetyNet connectivity settings, and downloading spot-check data in Vital Signs Check mode.

Note: Vital Signs Check is available in countries where cleared. For more information about Vital Signs Check, see ***Addendum, Root, Vital Signs Check***.

Perform one of the following tasks after enabling Vital Signs Check mode in Root:

- Configure patient profile parameter values in Vital Signs Check mode. See ***Configuring Parameter Values*** on page 31.
- Configure patient profiles in Vital Signs Check mode to connect to Patient SafetyNet. See ***Connecting to Masimo Systems*** on page 41.
- Download spot-check data from patient profiles in Vital Signs Check mode. See ***Downloading Trends*** on page 37.

Chapter 5: Messages

The following section lists common error messages, their potential causes, and next steps.

Message	Potential Causes	Next Steps
Timeout: Please check the *1. (Serial or TCP) connection or* *2. baud rate or* *3. com port or* *4. Restart MICT*	• Disconnected serial or Ethernet cable(s). • Settings in MICT *Setup Connection* do not match Masimo device settings. • Host computer and device not connected to same wireless network.	• Check USB/RS-232 serial cable connections. • Check Ethernet cable connections. • Check the host computer and device are connected to the same wireless network. • Check baud rate settings in Masimo device match baud rate settings in MICT. • Check the instrument type, connection type, baud rate, port, and IP addresses in the MICT *Setup Connection*.
No more profiles are allowed for this profile type.	• The maximum number of profiles (8) have been used.	• Delete an unused profile, then add the desired profile. See ***Removing User Defined Profiles*** on page 35 and ***Adding a User Defined Profile*** on page 33.
Unknown Status	• Device power needs to be cycled.	• Power cycle the device.

Chapter 6: Troubleshooting

Troubleshooting MICT

The following section lists possible MICT symptoms, potential causes, and next steps.

Symptom	Potential Causes	Next Steps
MICT does not successfully install in host computer	• Incompatible operating system	• Verify the operating system is minimum Windows 7. See ***Supported Platforms*** on page 49. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
MICT application does not open	• Software installation unsuccessful • Incompatible operating system.	• Verify the operating system is minimum Windows 7. See ***Supported Platforms*** on page 49. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
MICT does not communicate with device through serial connection	• External device is not compatible. • Device output settings are not configured correctly or do not match with MICT settings. • Communication cable is not properly connected.	• Check external device compatibility. • Attempt to reconnect by restarting MICT. • Check device output settings. • Check communication cable connection. • Check serial port connections. • Check baud rates match within MICT and device. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
MICT does not communicate with device through a hard-wired network connection	• External device is not compatible. • Ethernet is not enabled in Masimo device and/or not configured to the same network as the host computer. • Location does not have network availability. • Connected network is not available. • Internal failure.	• Check external device compatibility. • Attempt to reconnect by restarting MICT. • Check that the Ethernet feature is enabled in Masimo device. • Check Masimo device and host computer network settings match and network availability. • Check network connection. • Check correct IP address is in MICT setup connection. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
MICT does not communicate with device through wireless network connection	• External device is not compatible. • Wi-Fi is not enabled in Masimo device and/or not configured to the same network as the host computer. • Location does not have wireless and/or network availability. • Connected network is not available. • Internal failure.	• Check external device compatibility. • Attempt to reconnect by restarting MICT. • Check that the Wi-Fi feature is ON and correctly configured. • Check wireless availability for location. • Check network settings and availability. • Check network connection. • Check correct IP address is in MICT setup connection. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
Device Ethernet or WiFi status is down	• Location does not have wireless and/or network availability. • Connected network is not available. • Masimo device not configured to available Ethernet or WiFi network.	• Check wireless and/or hard-wired network availability for location. • Check network settings and availability. • Check network connection. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.
Unable to send wifi.cfg file using MICT	• *wifi.cfg* filename is incorrect. • *wifi.cfg* file not placed in correct folder.	• The configuration filename must be *wifi.cfg*. • The *wifi.cfg* file must be placed in *C:\MICT\Configs*. • Restart MICT. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.

Symptom	Potential Causes	Next Steps
Device unable to connect to Kite or Patient SafetyNet	• Location does not have network availability. • Connected network is not available. • Incorrect Ethernet or WiFi configuration in Masimo device.	• Check external device compatibility. • Check that the Wi-Fi or Ethernet feature is enabled. • Check network settings and availability. • Check network connection. • Check the host device is on the same network with the Masimo device. • Contact Masimo Technical Services. See ***Masimo Technical Services*** on page 51.

Chapter 7: Specifications

Minimum Requirements

MICT works on the following Windows Operating Systems:

Windows 7 (Minimum Requirement)
Windows 8
Windows 10

MICT Symbols

The following symbols may appear on the product or product labeling:

Symbol	Description	Symbol	Description
	Follow instructions for use		Consult instructions for use
	Separate collection for electrical and electronic equipment (WEEE)	REF	Catalog number (model number)
CE	Mark of conformity to European medical device directive 93/42/EEC	EC REP	Authorized representative in the European community
	Recyclable	LOT	Lot code
	Instructions/Directions for Use/Manuals are available in electronic format @http://www.Masimo.com/TechDocs **Note: eIFU is not available for CE mark countries.**		

Chapter 8: Service and Maintenance

Return Procedure

Clean contaminated/dirty equipment before returning, following instructions in Cleaning. Make sure the equipment is fully dry before packing. Call Masimo at 800-326-4890 and ask for Technical Support. Ask for an RMA number. Package the equipment securely, in the original shipping container if possible, and enclose or include the following information and items:

- A letter describing in detail any difficulties experienced with the MICT. Include the RMA number in the letter.
- Warranty information, a copy of the invoice or other applicable documentation must be included.
- Purchase order number to cover repair if the MICT is not under warranty, or for tracking purposes if it is.
- Ship-to and bill-to information.
- Person (name, telephone/Telex/fax number, and country) to contact for any questions about the repairs.
- A certificate stating the MICT has been decontaminated for bloodborne pathogens.
- Return the MICT to the shipping address listed in ***Contacting Masimo*** on page 51 below.

Masimo Technical Services

To contact Masimo Technical Services, refer to the Masimo Technical Services web page:

http://www.masimo.co.uk/company/global-services/technical-services/

Contacting Masimo

Masimo Corporation
52 Discovery
Irvine, California 92618

Tel:+1 949 297 7000
Fax:+1 949 297 7001

Limited Warranty

Masimo warrants to the original end-user purchaser the Masimo-branded hardware product (Masimo Instrument Configuration Tool) and any software media contained in the original packaging against defects in material and workmanship when used in accordance with Masimo's user manuals, technical specifications, and other Masimo published guidelines for a period of 12 months and any batteries for six (6) months from the original date the Product was obtained by the end-user purchaser.

Masimo's sole obligation under this warranty is the repair or replacement, at its option, of any defective Product or software media that is covered under the warranty.

To request a replacement under warranty, Purchaser must contact Masimo and obtain a returned goods authorization number so that Masimo can track the Product. If Masimo determines that a Product must be replaced under warranty, it will be replaced and the cost of shipment covered. All other shipping costs must be paid by purchaser.

Exclusions

The warranty does not apply to any non-Masimo branded product or any software, even if packaged with the Product, or any Product that was: (a) not new or in its original packaging when supplied to purchaser; (b) modified without Masimo's written permission; (c) supplies, devices, or systems external to the Product; (d) disassembled, reassembled, or repaired by anyone other than a person authorized by Masimo; (e) used with other products, like new sensors, reprocessed sensors, or other accessories, not intended by Masimo to be used with the Product; (f) not used or maintained as provided in the operator's manual or as otherwise provided in its labeling; (g) reprocessed, reconditioned, or recycled; and (h) damaged by accident, abuse, misuse, liquid contact, fire, earthquake or other external cause.

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Warranty

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Warranty Exclusions

This warranty does not extend to any product that has been used in violation of the operating instructions supplied with the product, or has been subject to misuse, neglect, accident or externally created damage. This warranty does not extend to any product that has been connected to any unintended instrument or system, has been modified, or has been disassembled or reassembled. This warranty does not extend to sensors or patient cables that have been reprocessed, reconditioned or recycled.

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Appendix A: Compatible Masimo Devices

The following Masimo devices are compatible with MICT:

Device	Minimum Software Level Requirement
Radical-7	v1.4.5.1 or above
RDS	v5.1.3.2 or above
Root and Root with noninvasive blood pressure and temperature (NIBPT)	v1.6.2.1 or above
Rad-67	v1.0.1.8 or above
Rad-97	v1.0.3.5 or above

Appendix B: Device Baud Rates

Device	Communication Protocol	RDS Version*	Available Maximum Baud Rates
Radical-7 docked to RDS	IAP	V1	9600**
		V2	9600, 19200***, 28800***, 38400***, 57600
	Data Collection	NA	57600**
Root/Root with NIBPT	IAP	NA	9600***, 19200***, 38400***, 57600***, 115200***, 230400***, and 921600
Rad-97	IAP	NA	9600***, 19200***, 38400***, 57600***, 115200***, 230400***, and 921600
Rad-67	IAP	NA	9600***, 19200***, 38400***, 57600***, 115200***, 230400***, and 921600

* Radical-7 must have software v1.5.5.8 or higher to allow identification of the RDS version.

** Baud rate is non-adjustable.

*** Baud rate is displayed on the Masimo device, but is not supported by MICT.

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