



GTR 8000 for 3600 Operations

ASTRO® 25
INTEGRATED VOICE AND DATA

**SOFTWARE DOWNLOAD
MANAGER**

July 2013



6871025P72-A

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As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste.

Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.

Document History

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About Software Download Manager

This manual provides an overview of the GTR8000 for 3600 Operation Software Download Manager application.

What Is Covered In This Manual?

This manual contains the following chapters:

- [Chapter 1 Software Download Manager Description](#) provides an overview of the Software Download Manager application.
- [Chapter 2 Software Download Manager Operation](#) details tasks that you perform once the Software Download Manager application is installed and operational on your system.
- [Chapter 3 Software Download Manager Troubleshooting](#) provides fault management and troubleshooting information relating to the Software Download Manager application.
- [Chapter 4 Software Download Manager Reference](#) contains supplemental reference information relating to the Software Download Manager application.

Useful Background Information

Motorola offers various courses designed to assist in learning about the system. For information, go to <http://www.motorolasolutions.com/training> to view the current course offerings and technology paths.

Related Information

See the following documents for associated information about the radio system.

Related Information	Purpose
<i>Standards and Guidelines for Communication Sites</i>	Provides standards and guidelines that should be followed when setting up a Motorola communications site. Also known as the R56 manual. This may be purchased on CD 9880384V83, by calling the North America Parts Organization at 800-422-4210 (or the international number: 302-444-9842).
System Documentation Overview	For an overview of the ASTRO® 25 system documentation, open the graphical user interface for the ASTRO® 25 system documentation set and select the System Documentation Overview link. This opens a file that includes: <ul style="list-style-type: none">• ASTRO® 25 system release documentation descriptions• ASTRO® 25 system diagrams• ASTRO® 25 system glossary For an additional overview of the system, review the architecture and descriptive information in the manuals that apply to your system configuration.

1 Software Download Manager Description

This chapter provides a high-level description of the Software Download Manager application and the function it serves on your system.

1.1 Software Download Manager Overview

A unique version of the Software Download Manager (SWDL) application is needed for use with a GTR 8000 being used for 3600 operation. Within this manual this version of the SWDL will be referred to as the "3600 SWDL" application for simplicity.

Only the **transfer only**, **install only**, or **transfer and install** functions of the 3600 SWDL application can be used to load new software into a GTR 8000 being used for 3600 operation.



NOTE

The 3600 SWDL only supports the use of the Single Device mode.

1.2 Software Download Manager Purpose

SWDL allows you to perform following tasks:

- Download software to a single instance of a device (such as one base station) that has been disconnected from the radio network.
- Obtain device SWDL Transfer Mode information.
- Update the software on newly added channels or subsites in a secure manner.
- Determine software and hardware versions on target devices.
- Purge (delete) a software version from selected target devices.
- Obtain device IP information.
- Audit a session using historical information recorded by Software Download Manager.

2 Software Download Manager Operation

This chapter explains how the Software Download Manager application works in the context of your system.

2.1 Types of Operations

The SWDL application performs three types of operations:

- [2.1.1 Transfer Only Operation, page 2-1](#)
- [2.1.2 Install Only Operation, page 2-1](#)
- [2.1.3 Transfer and Install Operation, page 2-2](#)

To monitor the progress of Transfer and Install operations, SWDL receives progress updates from target devices. The Software Download Manager also creates and stores historical information about each task and operation in log files.

2.1.1 Transfer Only Operation

The Transfer Only operation transfers (but does not install) new versions of software. The Transfer Only option is offered because transferring software could take from 15 minutes to one hour (depending on your network speed) while the Install Only operation takes a few minutes. Transfer Only operations can occur at any time because the call processing is not interrupted.

Data transfer can be performed by:

- Secure SWDL – transfer operations are authenticated and encrypted, based on the Secure File-Transfer Protocol (SFTP)

2.1.1.1 Secure Software Download

For the 3600 GTR it is not allowed to configure SWDL transfer mode using the Configuration Service Software (CSS). Secure transfer mode is used by default.



NOTE

The 3600 GTR products only support Secure Software Download

2.1.2 Install Only Operation

The Install Only operation installs software that has already been transferred to the device. Only the software that has already been transferred using SWDL can be installed.

2.1.3 Transfer and Install Operation

The Transfer and Install operation executes both the transfer and installation of new software without user intervention.

For information about the secure SWDL transfer mode, see [2.1.1.1 Secure Software Download, page 2-1](#).

2.2 Download to Subsystems and Devices

Single Device Software Download allows you to transfer and install software to a single instance of a device (such as one base station) that has been disconnected from the radio network. This feature gives self-maintained organizations the ability to install different versions of software. Your organization can also test alignment and field-replaceable units (FRUs) on a device that is not a part of the radio network. Single device software download is done from a PC loaded with the CSS application.

For procedures on how to configure the secure SWDL transfer mode for individual devices, see the ASTRO® 25 system manual for that device.

2.2.1 Subset of Device Types in a Subsystem

The following table shows a subset of devices in the subsystem. This table also shows mode in which device is supported.



NOTE

For details of which NM Client or Service Laptop locations can perform software downloads to each site type, see the *Service Access Architecture* manual.

Table 2-1 Subset of Device Types in a Subsystem

Site Type	Hardware	Device	Mode
3600 Trunking Simulcast	GTR 8000	3600 Multisite Base Radio	Single Device Mode
3600 Trunking IntelliRepeater	GTR 8000	3600 IntelliRepeater	Single Device Mode

2.3 Upgrading a Device Software

Prerequisites:

To see all subsystem devices to which you can download a software, see [2.2.1 Subset of Device Types in a Subsystem, page 2-2](#).



CAUTION

Do not make configuration or service changes to devices at a site currently involved in a software download operation. Manually changing Virtual Local Area Network (VLAN) information on a device during a software download operation causes failures. Notify all the concerned parties before beginning a software download operation.

Process Steps

- 1 If you want to change the location of the file set configuration files from their default locations, see [2.4.1 Changing Folder Location \(Default and Non-Default\), page 2-4](#).
 - 2 Open SWDL. See [2.5 Opening the Software Download Manager Application, page 2-5](#).
 - 3 Use the File to set up the Software Depot file sets. See [2.6 Using the File Manager, page 2-6](#).
 - 4 [2.7.1.1 Starting a Download Operation to a Device in a Single Device Mode, page 2-11](#)
-

2.4 Copying Files to Your Hard Drive

The Software Download Manager application transfers subsystem software to different device types. Each device has a predetermined subfolder name for a centralized and single device software download, that cannot be modified.

The File-Transfer Protocol (FTP) or Secure File-Transfer Protocol (SFTP) servers obtain folder location information from the **applparams.cfg** configuration file and predetermined device subfolder names from the **users.dat** file. The information from both files is used by the servers to transport files to a specified device during a transfer operation. You cannot change the folder location.

2.4.1 Changing Folder Location (Default and Non-Default)

Procedure Steps

1 Locate the **applparams.cfg** file:

- If you are using a Network Management Client, find the **applparams.cfg**:
C:\Users\Public\Documents\Motorola\Swdl on Windows Vista Business Edition and Windows 7
- If you are using a PC with CSS, find the **applparams.cfg** file at the path:
C:\Users\Public\Documents\Motorola\CSS\3600\swdl on Windows Vista Business Edition and Windows 7



NOTE

The paths listed are the default locations of the **applparams.cfg** file depending on your computer configuration, the path may vary.

2 Right-click the **applparams.cfg** file and from the pop-up menu select **Properties**.

Step result: The **applparams.cfg** properties window displays.

3 In the **Attributes** section, clear the **Read-only** check box, and click **OK**.

Step result: You can now modify the **applparams.cfg** file.

4 Double-click the **applparams.cfg** file.

Step result: A prompt appears requesting you to identify the application which can open the **applparams.cfg** file.

5 From the list box, select **Notepad** and click **OK**.

Step result: The **applparams.cfg** file opens in the text editor.

6 Scroll to the bottom of the text and add or modify the **SWDepotPath** parameter. An example of the parameter value is **SWDepotPath=D:\swdepot**



NOTE

By default, SWDL uses **SWDepotPath =**
C:\ProgramData\Motorola\Swdl\swdepot on Windows Vista Business Edition and on Windows 7

7 Save and close the **applparams.cfg** file.

2.5 Opening the Software Download Manager Application

Procedure Steps

- 1 Perform one of the following actions:

If...	Then...
If you are using a Network Management Client,	from the Start menu, select Motorola PRNM Suite , and then select Software Download .
If you are using another computer where the CSS application is installed,	<p>on your desktop, double-click the Software Download icon.</p> <p>Figure 2-1 CSS Software Download Icon</p>  <p>OR Click Start → Program → Motorola → Configuration Service Software <for a desired release> → Software Download.</p>

Step result: The main Software Download window opens.

- 2 Import a fileset by using the Software Depot File. See [2.6 Using the File Manager, page 2-6](#).

- 3 Select **Single Device Mode** and click **Continue**.

- 4 In the Single Device Mode warning box, click **OK**

Step result: The Software Download IP Validation window appears.



NOTE

This starts the download process. For procedures on how to download to a single device, see [2.7.1 Downloading Software to a Single Device, page 2-11](#).

2.6 Using the File Manager

The Software Depot File Manager window shows all the file sets referenced in the Software Depot configuration file, in a table format. The items in the table are grouped according to the application type.

The Software Depot is located on your hard drive. It contains all the configuration files and the file sets that SWDL uses to perform the SWDL operations.

The File Manager window contains the following information:

- **Label** – The software label associated with each component in the File table. It is the name that is visible in the **Software Component (Version (Index))** drop-down list when you are performing a software download operation to an application type.
- **Application Type** – The device type associated with each component in the File table.
- **Fileset Version** – The software version information associated with each component in the File table.

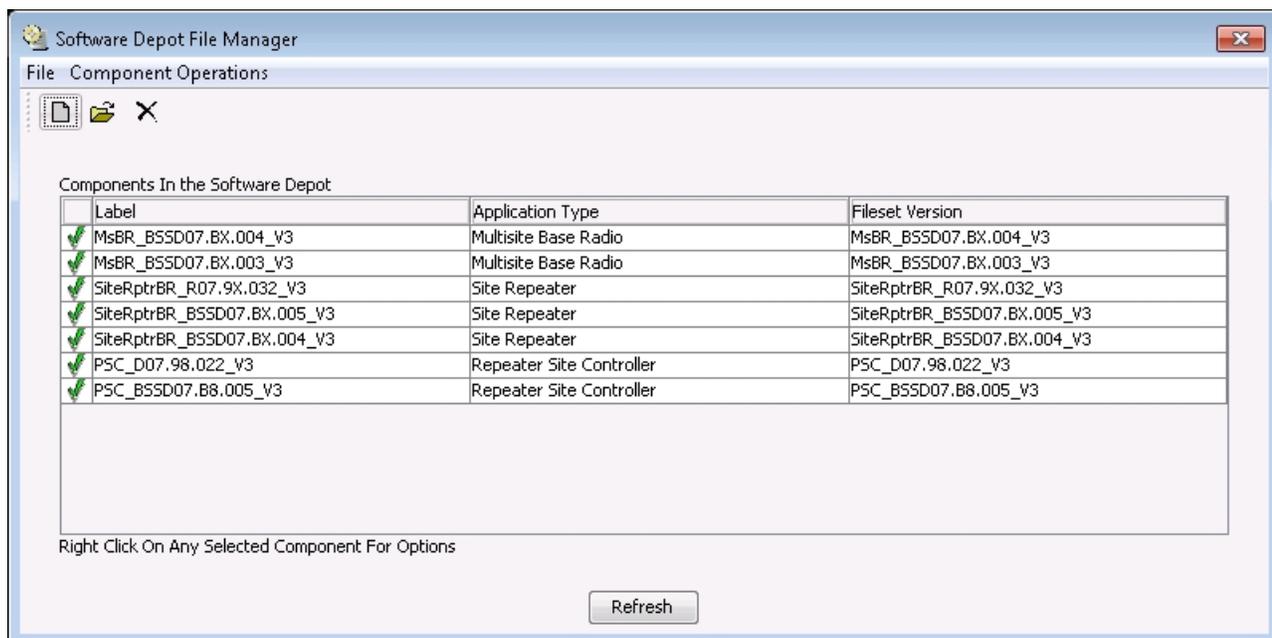
See also [2.6.1 Opening a Software Depot File Manager Window, page 2-6](#).

2.6.1 Opening a Software Depot File Manager Window

Procedure Steps

- 1 From the Software Download main window File menu, select **File Manager**

Figure 2-2 File Manager Window



Step result: The **Software Depot File Manager** window appears.

- 2 If the message window shows: There are no components in the SWDEPOT. Do you want to import them from old location (c:\SWDEPOT)?, click **OK**.

**NOTE**

Wait until the system copies all the file sets.

Step result: Software Depot File opens with the file sets already in the new location.

2.6.2 Importing a Component into a Software Depot

**NOTE**

In addition to importing the file set configuration file from the distribution media, the import operation also creates a component corresponding to the imported file set.

Procedure Steps

- 1 From the Component Operations menu, select **Import Fileset**.

Step result: The Import a Component Into the Software Depot dialog box appears.

- 2 In the Configuration File Path text box, enter the file path or click **Browse** to navigate to the file path of the configuration file you want to use. You can select one of five configuration files:

- **swdepot.cfg** – Remote Software Depot configuration file on the distribution media. It is the same as the swdepot.cfg file in the Software Depot, except that the **depotpath** parameter is assigned the path of the directory that contains the corresponding file set configuration file (for example, swdl.cfg), relative to this file.

For a file structure example of importing the software file set configuration, save a file from the CD to drive Y.

Figure 2-3 Remote Depot File Structure



If the **swdepot.cfg** is placed at the root of the Y drive, the **depotpath** parameter for the **swdl.cfg** file located under **v2** is **xfer/HPDSC/v2**.

- **swdl.cfg** – Software file set configuration file from SWDL Software Depot distribution media.
- **swdlv1.cfg** – Software file set configuration file from SWDL Software Depot distribution media. SNMPv1 is used for this configuration file.
- **swdlv3.cfg** – Software file set configuration file from SWDL Software Depot distribution media. SNMPv3 is used for this configuration file.

**NOTE**

If a selected device supports both **SNMPv1** and **SNMPv3**, two files are available: **swdlv1.cfg** and **swdlv3.cfg**. If a selected device supports only **SNMPv3**, only **swdl.cfg** file is available.

- 3 In the Software Fileset Version drop-down list, select a software file set version for the needed device type.
Step result: The application type for the selected software file set version is displayed in the dialog box.
 - 4 In the Component Label text box, enter a unique name for the new component or click **Generate** for an auto-generated label. **Generate** uses the software file set version string. The Component Label is the name that is visible in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.
 - 5 Click **OK** to accept the changes and exit the dialog box. Click **Cancel** to exit the dialog box without changing.
-

**NOTE**

In case of corrupted fileset the following message appears:

```
File Integrity Check failed.  
Please make sure the fileset is not corrupted  
and repeat the import operation.  
Change a damaged fileset for the correct one.
```

Step result: Reading the fileset may take a while and the hourglass symbol appears (depends on the PC and fileset).

2.6.3 Creating a New Component

Procedure Steps

- 1 From the Component Operations menu, select **Add a New Component**.
Step result: The Add a New Component dialog box appears.
 - 2 In the Application Type drop-down list, select an application type.
Step result: The software file set version for the selected device type is displayed in the dialog box.
-

- 3 In the Component Label text box, enter a unique name for the new component or click **Generate** for an auto generated label. **Generate** uses the software file set version string. The Component Label is the name that is visible in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.
-
- 4 Perform one of the following actions:
 - Click **OK** to accept the changes and exit the dialog box.
 - Click **Cancel** to exit the dialog box without changing.
-

2.6.4 Details of Component

To obtain details of a component that is selected in the File table, select **Details of Component** from the Component Operations menu. As a result, the Software Depot Component Details dialog box appears. This dialog box contains a detailed attribute list for the selected component.

2.6.5 Editing a Component

Procedure Steps

- 1 In the File Manager window, select a row representing a component that you want to edit.
-
- 2 From the **Component Operations** menu, select **Edit a Component** , or click the **edit** command button (the open folder icon button).

Step result: The Edit a Component dialog box appears.
-
- 3 In the Application Type drop-down list, select an application type.

Step result: The software file set version for the selected application type is displayed in the dialog box.
-
- 4 In the Component Label text box, enter a unique name for the new component or click **Generate** for an auto generated label. **Generate** uses the software file set version string. The Component Label is the name that is visible in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.
-
- 5 Click **OK** to exit the Edit a Component dialog box.
-

2.6.6 Deleting a Component

Procedure Steps

- 1 In the File Manager window, select a row representing a component that you want to delete from the File Manager table and the software depot configuration file.
-

- 2 From the **Component Operations** menu, select **Delete a Component** or click the **delete** command button (the X icon button).

Step result: The **Confirm Delete Operation** dialog box appears.

- 3 Perform one of the following actions:
 - Click **Yes** if you want to delete the selected component in the **Confirm Delete Operation** dialog box.
 - Click **No** if you want to cancel the delete operation.

2.7 Performing Operations on a Single Device

The Single Device Mode is used to transfer and/or install software to a single device that has been physically removed from the radio network. It is also used to a standalone device such as a conventional repeater. The device being downloaded to needs IP connectivity to the PC running the SWDL application. Ensure that there is no IP connectivity between the device being downloaded to and any other radio system devices.

Device types supported by the Single Device Mode are listed in [2.2.1 Subset of Device Types in a Subsystem, page 2-2](#).

You can also perform the following operations to a single device:

- Upgrade the version of the software running on the device
- Upgrade the file set information of the proxied device on its proxy
- Convert the software application type on supported hardware devices



NOTE

Only the “GTR 8000 for 3600 Operation” SWDL can be used to convert the GTR 8000 for 3600 operation.

Table 2-2 Converting the Software Application Type on Supported Hardware Device

Device
The supported hardware devices on which you can convert the software application type separately:
Multisite Base Radio
HPD Base Radio
Site Repeater
Conventional Base Radio

2.7.1 Downloading Software to a Single Device



IMPORTANT

- Ensure that the device is functioning properly before performing any operation.
- If you choose the Transfer and Install operation and a failure occurs at any time during the Transfer, the Install step does not start. Before attempting to install the software, correct the failure and re-transfer the software to ensure that it is valid.
- To force re-transfer of software that exists on the device, see [2.9 Purging a Software Version](#), page 2-20

2.7.1.1 Starting a Download Operation to a Device in a Single Device Mode



NOTE

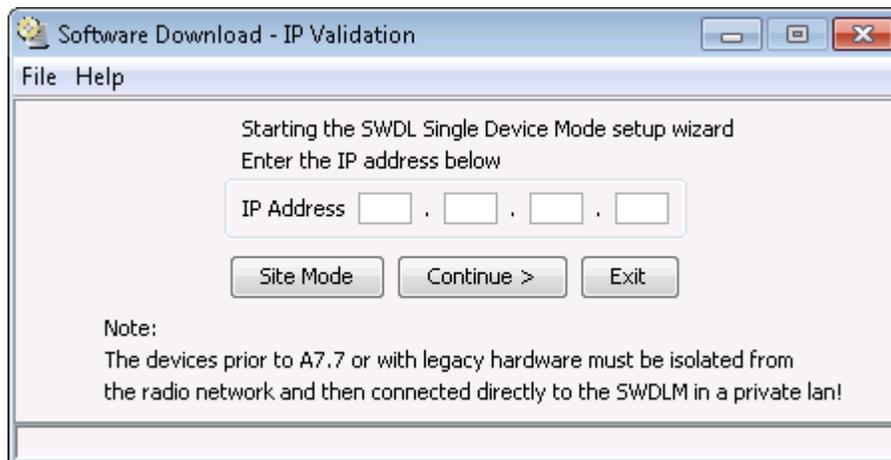
Contact your system administrator to obtain:

- IP addresses
- Account logins and passwords

Procedure Steps

- 1 After selecting **Software Download to Single Device**, see [2.5 Opening the Software Download Manager Application](#), page 2-5 type a valid IP address for the selected device in the IP address field of the Software Download IP Validation window.

Figure 2-4 IP Validation Window



- 2 Click **Continue** to open the Software Download – Device Options window. SWDL contacts the device and retrieves the information needed about that device. Enter your authentication password and encryption password if the chosen security level requires inserting these credentials.

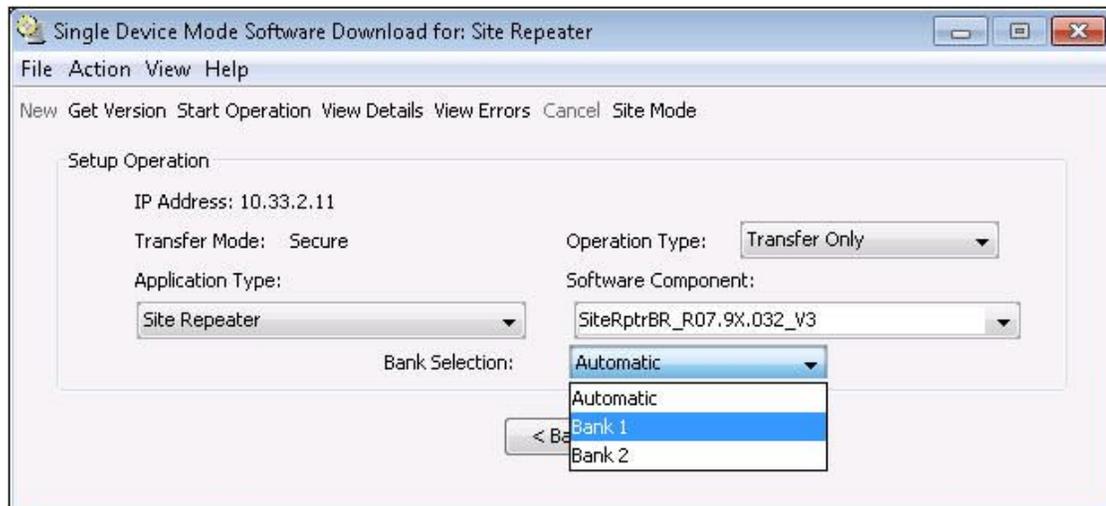
Figure 2-5 Login/Passphrase Window



Step result: A pop-up window appears displaying the security level option.

- 3 In the Single Device Mode – Device Options window, verify that the IP address and the Software Application reflect the device that you intend to upgrade.
- 4 In order to receive the software, from the Bank Selection drop-down list select the bank. Selecting **Automatic** for storing the software in the bank that is more suitable for the device.

Figure 2-6 Single Device Mode Software Download Bank Selection



- 5 Perform one of the following actions:

If...	Then...
If you want to convert the software on a device,	check Convert Software Application and click Continue . Step result: The Single Device Mode window opens. See 2.7.4 Converting a Single Device, page 2-17
If you want to upgrade the software on a device,	check Upgrade Software Application and click Continue . Step result: The Single Device Mode window opens, where you can perform any of the following: <ul style="list-style-type: none"> • 2.7.1.2 Performing Transfer Only Operation on a Single Device, page 2-13 • 2.7.1.3 Performing Install Only Operation on a Single Device, page 2-14 • 2.7.1.4 Performing Transfer and Install Operation on a Single Device, page 2-14 • 2.7.2 Obtaining the Software Version Information on a Single Device, page 2-15

2.7.1.2 Performing Transfer Only Operation on a Single Device

Procedure Steps

- 1 In the Single Device Software Download window, from the Operation Type drop-down list, select **Transfer Only**.
- 2 Confirm that the appropriate device type is displayed.
- 3 Next to the appropriate device type, from the drop-down list, select the software to transfer to this device type.
- 4 Before selecting **Start Operation**, make sure that the device is configured in the expected Transfer mode. The current mode is displayed in the **Transfer Mode** field (possible values for Transfer Mode field are : Clear or Secure).
- 5 In the Single Device Mode main window, click **Start Operation**.



NOTE

Clicking **New** closes the Single Device Mode window and returns to the Single Device IP Validation window.



NOTE

If a fileset is damaged, the Transfer operation stops. Import a correct fileset and repeat the operation.

Step result: If the transfer was successful, the device progress bar displays green.
If the transfer failed, the device progress bar displays red.

2.7.1.3 Performing Install Only Operation on a Single Device

Procedure Steps

- 1 In the Single Device Software Download window, from the Operation Type drop-down list, select **Install Only**.
 - 2 Confirm that the appropriate device type is displayed.
 - 3 Next to the appropriate device type, from the drop-down list, select the software to install to this device type.
 - 4 Click any field in the row of the file set you want to install, and click **OK**.
-



NOTE

Do not select the RAM version of the software for installation, or any version whose OpStatus is **Invalid**. You cannot select a version while in the **Detail** window.

Step result: The file set is loaded into the device type text box and is ready to install.

- 5 In the Single Device Software Download main window, click **Start Operation**.



NOTE

Clicking **New** closes the Single Device Software Download window and returns to the Single Device Software Download IP Validation window.

Step result: If the install was successful, the device progress bar displays green. If the transfer failed, the device progress bar displays red.

2.7.1.4 Performing Transfer and Install Operation on a Single Device

Procedure Steps

- 1 In the Single Device Software Download window, from the Operation Type drop-down list, select **Transfer and Install**.
 - 2 Confirm that the appropriate device type is displayed.
 - 3 Next to the appropriate device type, from the drop-down list, select the software to transfer and install to this device type.
-

- 4 In the Single Device Software Download main window, click **Start Operation** .

**IMPORTANT**

If you cancel the Transfer and Install operation during the Transfer operation, the Transfer operation finishes, but the Install operation is not invoked. It is not possible to stop a Transfer operation. The Transfer and Install operation cannot be stopped during the Install operation. If a failure occurs during the Transfer operation, the Install does not occur.

**NOTE**

If a fileset is damaged, the Transfer operation stops. Import a correct fileset and repeat the operation.

After the Transfer is successfully completed, the Transfer indicator displays 100% and SWDL begins the Install operation. After the Install is successfully completed, the Install indicator displays 100% and the Transfer and Install operation is finished.

Clicking **New** closes the Single Device Software Download window and returns to the Single Device Software Download IP Validation window.

Step result: The Transfer operation begins first.

Postrequisites:

See [4.4 API Process](#), page 4-2.

2.7.2 Obtaining the Software Version Information on a Single Device

Procedure Steps

- 1 In the Single Device Software Download window, click **Get Version**.

Step result: The Version Information window opens listing all versions of software available on the selected device.

- 2 For more detail about the software versions on the selected device, click the **Details** button.

Step result: The Details window opens.

- 3 Perform one of the following actions:

- Click the **Overview** button to return to the previous (Overview) window.
 - Close the window to return to the Single Device Software Download main window.
-

2.7.3 Obtaining More Information about Failures

SWDL can provide to the user more detailed information about failures occurring during the transfer or install operations. The information about failure is read directly from devices and interpreted for the user.

Procedure Steps

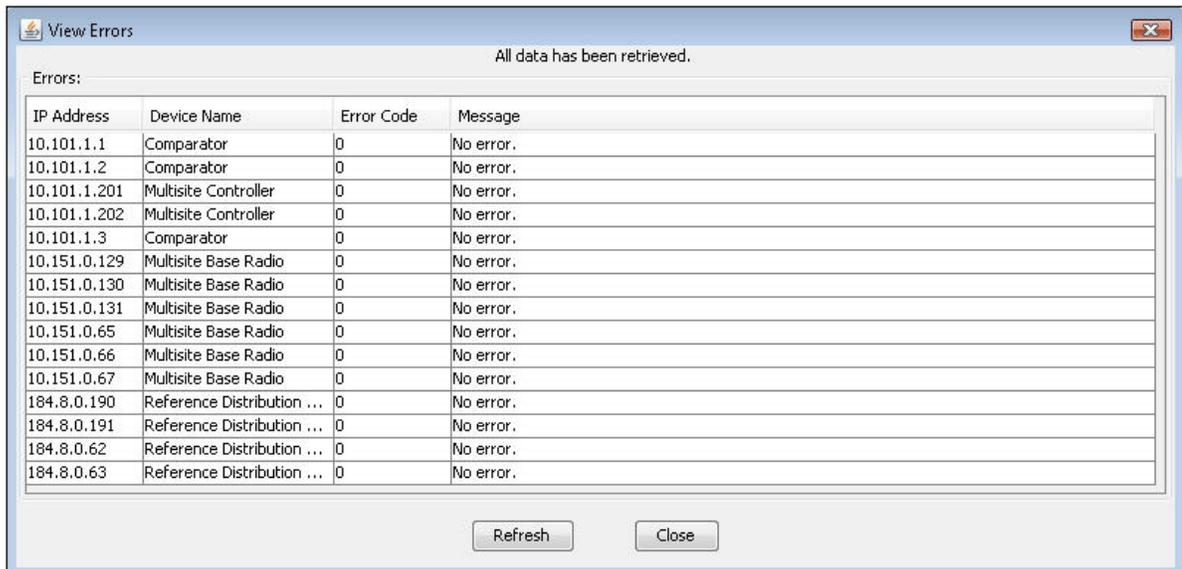
- 1 In the click **View Errors** button.



NOTE

In the Software Download main window when the subsystem has not yet been validated, the View Errors button can be grayed out.

Figure 2-7 View Errors Dialog Box



Step result: The **View Errors** dialog box appears.

- 2 Wait until all information is retrieved from all devices.

Step result: One of the following messages are displayed in the upper part of the dialog box:

All data has been retrieved. This message informs that SWDL was able to communicate to all devices.

OR

Error occurred while retrieving data! This message informs that SWDL was not able to communicate to all devices.

- 3 Look through the records in the Error table to find out the cause of the failure for the devices. The devices in the table can be identified by their IP address and device type name.

- 4 Click **Close**.

Step result: The **View Errors** dialog box closes.

2.7.4 Converting a Single Device

Prerequisites:

Check the currently supported hardware devices on which you can convert the software application listed in [2.7 Performing Operations on a Single Device, page 2-10](#).

Procedure Steps

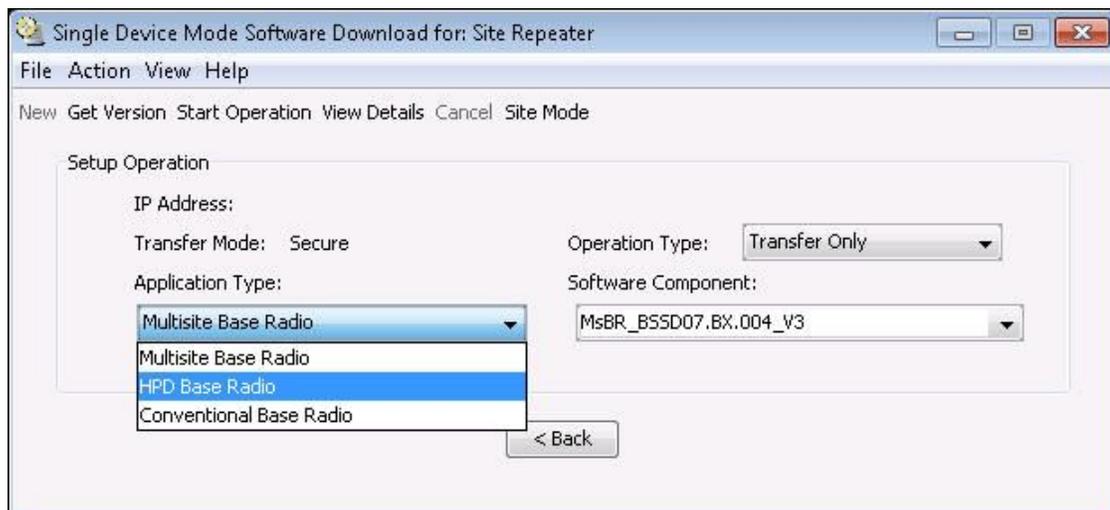
- 1 After checking **Convert Software Application** in the Single device Software Download – Device Options window (see [2.7.1.1 Starting a Download Operation to a Device in a Single Device Mode, page 2-11](#)), select the software application type to convert to from the drop-down list in the Single Device Software Download window.



NOTE

The window in this example shows the selected device being converted to a Repeater Site. Only one software application can be selected. Selecting a second one deselects the first one. Some hardware devices are not able to make this conversion. Single device SWDL utility checks the device and informs you which choices are available. If the Convert option is not available, then the device may need to be upgraded to the current station software release before continuing.

Figure 2-8 Single Device Software Download Device Options Window



- 2 Next to the appropriate device type, from the drop-down list, select the software to transfer and install to this device type.

- 3 In the Single Device Software Download main window, click **Start Operation**.

**NOTE**

Clicking **New** closes the Single Device Software Download window and returns to the Single Device Software Download IP Validation window.

Step result: If the transfer was successful, the device progress bar displays green. If the transfer failed, the device progress bar displays red.

2.8 Auditing a Session with the Log Files

Audits are turned on by default at the start of the SWDL application. All auditing information is placed in text files or logs. These text files contain valuable troubleshooting information. At any time, audits can also be started from the command line. You can also change the audit level, where higher levels provide more detail.

To start the SWDL application with audits turned off, see [2.8.3 Turning Off Audits at Application Startup, page 2-19](#).

2.8.1 Log Files

The operation logs provide a history of the actions that occurred during an SWDL session. The logs store following information:

- timestamp (indicating the time at which the operation is scheduled to start)
- identifier for the operation
- type of target site, subsite, and/or target devices
- identifier of target site, subsite, and/or target devices
- status of the operation (such as Scheduled or Running)

Operation logs, if any, are examined when SWDL is opened to determine the state of any operation as known before a close-down. This includes any task or operation that has not been completed before the close-down. If a failure occurs in an operation, SWDL asks the device for the cause and prints the information to a log file.

**NOTE**

Two simultaneous SWDL invocations are not permitted.

A log directory is created on the hard drive of the Network Management Client at:

- If you are using a Network Management Client, find the log files at:
C:\Users\Public\Documents\Motorola\Swdl on Windows Vista Business Edition and Windows 7.
- If you are using a PC with CSS, find the log files at:
C:\Users\Public\Documents\Motorola\CSS\3600\swdl on Windows Vista Business Edition and Windows 7.

2.8.2 Cleaning Log Files



NOTE

Periodically archiving and deleting log records from the hard drive is recommended.

Procedure Steps

- 1 In the **Action** menu, click **Clean Log Files**.
 - 2 In the **Confirm Operation** dialog box, click **Yes**.
Step result: **Information** window appears.
 - 3 Click **Ok**.
-

2.8.3 Turning Off Audits at Application Startup

Procedure Steps

- 1 Locate the **applparams.cfg** file:



NOTE

The paths listed are the default locations of the **applparams.cfg** file depending on your computer configuration, the path may vary.

- If you are using a Network Management Client, find the **applparams.cfg**:
C:\Users\Public\Documents\Motorola\Swdl on Windows Vista Business Edition and Windows 7
- If you are using a PC with CSS, find the **applparams.cfg** file at the path:
C:\Users\Public\Documents\Motorola\CSS\3600\swdl on Windows Vista Business Edition and Windows 7

- 2 Double-click the **applparams.cfg** file.
Step result: A prompt appears requesting you to identify the application which can open the **applparams.cfg** file.
- 3 From the list box, select **Notepad** and click **OK**.



NOTE

The **AuditLevel** parameter can be set within a range of **1** to **15**, where **1** is the lowest amount of detail and **15** is the highest amount of detail. The default setting for the **AuditLevel** parameter is **8**.

Step result: The **applparams.cfg** file opens in the text editor.

- 4 Save and close the applparams.cfg file.
-

2.9 Purging a Software Version

Prerequisites:

Contact your system administrator to obtain IP addresses.

Procedure Steps

- 1 In the **Software Download** main window, click **Single Device Mode**.
 - 2 In the **Software Download - IP Validation** window, type the proper IP address, and click **Continue**.
 - 3 In the **Login/Passphrase** window, enter your authentication password and encryption password if the chosen security level requires inserting these credentials, and click **OK**.
 - 4 In the **Software Download - Device Options** window, select **Upgrade Software Application** check box, and click **Continue**.
 - 5 In the **Single Device Mode Software Download** window, click **Get Version**.
 - 6 In the **Version Information** window, right-click the component you want to purge, and click **Purge**.
 - 7 In the **Confirm Operation** window, click **Yes**
Step result: The purged component is removed from the **Version Information** window.
-

2.10 Opening the Configuration Service Software (CSS)

Procedure Steps

- 1 From Start menu select **Programs**.
 - 2 From Programs menu select **Motorola**.
 - 3 From Motorola menu select **Configuration Service Software for A7.13**.
 - 4 From the Configuration Service Software for A7.13 menu select the **Configuration Service Software (CSS)** application.
Step result: The Configuration Service Software main window appears.
-

3 Software Download Manager Troubleshooting

This chapter provides fault management and troubleshooting information relating to Software Download Manager application.

3.1 Clearing In-Session Status



CAUTION

Be careful when manually clearing a device, as unexpected results occur if a device is involved in two or more Software Download operations.

The In-Session feature is used to prevent devices from being involved in more than one SWDL session at a time.

When an operation is in progress, the involved device status is set to **In-Session**. This indicates, to any additional SWDL contacting the device, that the device is currently involved in an operation and is not available for download or install. If the In-Session status was not cleared or a second SWDL tries to contact the device, then a warning is displayed.

If the device was not cleared properly due to a failed Software Download operation or other problem, you can manually clear the device and start again.

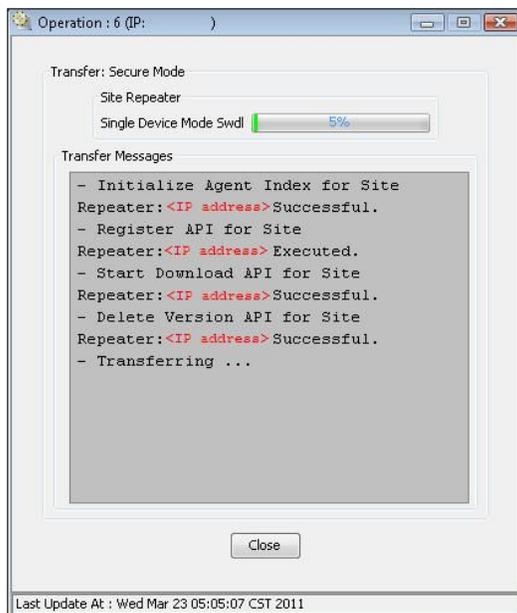
3.2 Fixing Transfer Failure Caused by an Incorrect Default Network Interface Controller



NOTE

If a transfer operation problem occurs on computers with two or more Network Interface Controllers, it is caused by the wrong default Network Interface Controller. In that situation, the transfer operation fails and in the Transfer Messages panel the `Transferring...` message **does not** appear (see the figure below).

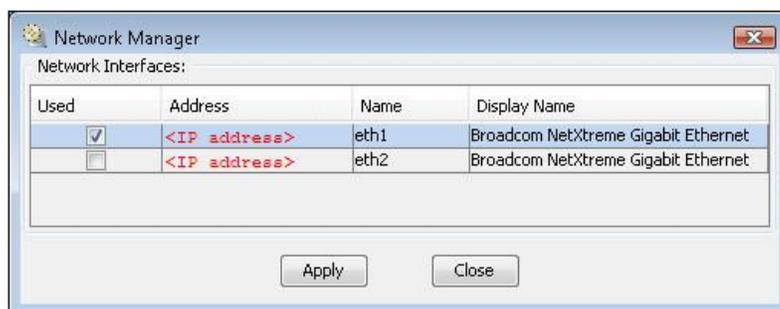
Figure 3-1 Operation Window - Transfer Message



Procedure Steps

- 1 From the Software Download Manager **File** menu, select **Network Manager**

Figure 3-2 Network Manager Window



Step result: The **Network Manager** window appears.

-
- 2 In the **Used** column check the correct Network Interface and click **Apply** button.

Step result: The **Network Manager** window closes.

- 3 Restart the transfer operation.
-

3.3 Checking for a Link Failure

A link failure may cause a transfer or install operation to take an excessive amount of time.

Process Steps

- 1 If you suspect that a Transfer or Install operation is taking too long to complete, check the link status of the target site using the fault management application.



NOTE

The timeout for the Transfer API is three hours. The timeout for the Install API is one hour.

- 2 If a link to an SWDL target device is down, you may choose exit and restart SWDL in order to perform software download on another subsystem.



NOTE

It is not possible to cancel a Transfer operation. The Transfer operation may continue to proceed on the subsystem with the failed link even though you exited SWDL. There is a possibility that it may still succeed, depending on the nature of the link failure (for example, the link failure could be intermittent).

- 3 After restarting SWDL, you can attempt to connect to the subsystem with the failed link and view the Validate table to check for version mismatches among the devices.



NOTE

It is not possible to re-initiate a Transfer to the subsystem until it exits SWDL mode by itself and the link failure is corrected.

3.4 Checking for an SFTP User Authentication Failure

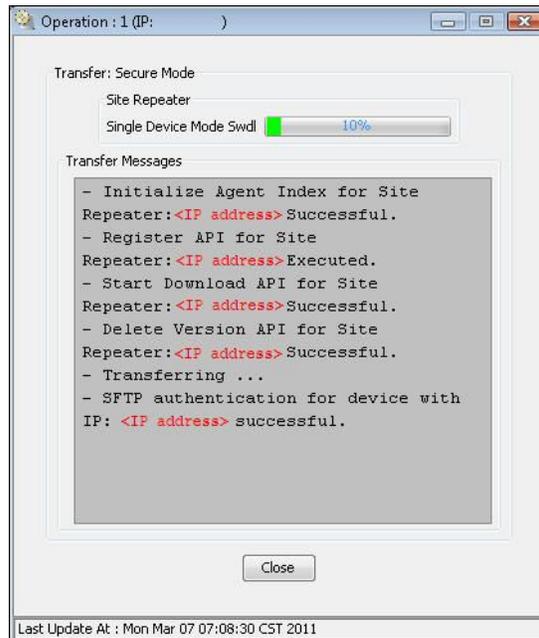
In case of an SFTP user authentication failure, the transfer operation is not possible. .

Possible causes:

- Problem with a device, to which you transfer files. All messages in the Operation Window, Transfer Message, that inform about the authentication problems should come from the identified by the IP address devices (from devices, that participated in that transfer).

- A problem with the blocked account for the SFTP user, caused by an attack, or illegal use of the SFTP server by unauthorized person. To state this, go to the Operation Window and in the Transfer Message panel you will see messages about attempting authentication from the unknown devices identified by the IP address.

Figure 3-3 Operation Window Displaying SFTP Authentication Status – Example



Possible messages concerning the SFTP authentication (where x.x.x.x is the device's IP address):

- SFTP authentication for device with IP: x.x.x.x successful.
- SFTP authentication for device with IP: x.x.x.x failed.

3.5 Verifying an initVerIndex API Failure

If the initVerIndex API fails, verify that the file set version for the device type is valid and not the active file set.

3.6 Receiving Notification of the Inability to Receive SNMP Traps

Process Steps

- 1 Open the Software Download Manager and validate your subsystem. See [2.5 Opening the Software Download Manager Application, page 2-5](#).

- 2 Select an operation. See [2.1 Types of Operations, page 2-1](#).

- 3 Select version of at least one device type.

If none of the UDP ports configured as potential SNMP trap ports are available, you see a message in the validation status window. This message indicates that the Software Download Manager application is not able to receive the SNMP traps, along with a list of the configured UDP ports that Software Download Manager attempted and failed to bind to.

In this case, when you select **Start Operation**, a dialog box appears that displays the same warning message, and prompts you to continue or to abort the operation.

- 4 Perform one of the following actions:

If...	Then...
If you click Yes in the dialog box,	the operation continues without receiving traps and polls for status.
If you click No in the dialog box,	you see a message indicating that the operation will not continue. The dialog box also displays a suggested resolution for making a UDP port available on which to receive SNMP traps, along with a list of the configured UDP ports that SWDL attempted and failed to bind to.

- 5 Click **OK** in the error dialog box to return to the operation setup screen. You can select **Start Operation**, with the same or modified operation setup selections.

3.7 Resolving Authentication Failures

If you use wrong credentials, there is an authentication failure. To resolve the failures that occur due to authentication problems, be aware of the following factors:

- When the IP of a device changes, its respective SNMPv3 settings are reset. After changing the IP, make sure that the credentials are set up properly. For details, see the *SNMPv3* manual.
- Passphrases are case sensitive.
- After using correct passphrases if the authentication fails, then check if the device is running.
- All devices in the site should have same credentials and run on the same SNMP version.

4 Software Download Manager Reference

This chapter contains supplemental reference information relating to Software Download Manager application.

4.1 Software Download File Transfer Status Definitions

You can view the file-transfer status of software that has been transferred to a device by selecting **Action** → **Get Version** in the Single Device Software Download window. The file set statuses are:

- **In Use** – This is the software the device is currently running.
- **Present** – This software was previously transferred and installed on the device. Another version was installed since this version was the **In Use** version.
- **Invalid** – A command was not received by the device.
- **Transferred** – This software was transferred to the device.



CAUTION

Do not attempt to install software with an Invalid status. Instead, purge the invalid file set and transfer the software again.

4.2 Software Download Operation Status View

To monitor the progress of Transfer and Install operations, Software Download Manager receives progress updates from target devices that show the rate of progress and completion percentage of the software download. .

Operation and task views refresh automatically as a result of operation and task status changes. For details, see the *3600 Software Download Manager Online Help*.

4.3 Software Download Historical Information

The Software Download Manager application creates and stores historical information about each task and operation in log files. See [2.8.1 Log Files](#), page 2-18.

4.4 API Process

Table 4-1 Definition of API Process

API Process	Definition
Register API	The Software Download Manager registers with the target to receive traps. The status window only shows that this API has been executed. For this method, success or failure is not shown. If the Register API fails, Software Download Manager does not get traps. Software Download Manager waits the timeout period and then polls the target. Software Download Manager operations take longer, but the operation's outcome does not change based on traps not being received.
Start Download API	This method puts the target into software download mode. The target does not know whether a Transfer or an Install takes place. The Start Download API can be rejected if the device is already in an Software Download Manager session.
Delete API	Performed before Transfer API, this method looks at the version table on the target and determines where to transfer the new software.
Transfer API	The Software Download Manager tells the target where to find the files to transfer. The target establishes an FTP or SFTP connection and pulls the software down to it.
Finish API	The target shifts out of software download mode.
Deregister API	Like Register API, the status window only shows that this method has been executed. If the deregister fails, the target automatically deregisters Software Download Manager at the end of the timeout period.
Prepare API	Only the proxy devices to be installed go through the Prepare API process.
Install API	The Install API process performs the actual installation of the new software. Only the proxy devices to be installed go through the Install API process.
Go API	Go API resets the target so that it comes up under the new software. This method is a full reboot. Only the proxy devices to be installed go through the Go API process.
init Version API	In order for a version to be installed, it is first transferred and a record of it is stored in the device's version table. This API process ensures that the index in the version table that the user selected to be installed matches the version on each of the devices' version tables.
init Agent API	Some agents proxy for other agents. This API process ensures that the Software Download Manager agent table has an entry for the agent that is about to participate in an Software Download Manager operation.



NOTE

Each API process applies to a single device only. In order to execute the same method on multiple devices, the API process is called iteratively for the desired number of times. The target device interprets commands sent to it by Software Download Manager through the API Processes.

If timeout is N/A the process times out in one minute or less.

The order in which the API Processes are called differs depending on the type of operation and the type of device. For the API process order for each type of operation, see [4.4.1 Ordering of API Process for Transfer Operation, page 4-3](#), [4.4.2 Ordering of API Process for an Install Operation to a Proxy Device, page 4-3](#), and [Ordering of API Process for an Install Operation to a Non-Proxy Device](#).

4.4.1 Ordering of API Process for Transfer Operation

Table 4-2 Order of API Process for Transfer Operation

API Process	Time Out
initAgent	N/A
Register API	N/A
Start Download API	20 seconds
Delete API	N/A
Transfer API	3 hours
Finish API	20 seconds
Deregister API	20 seconds

4.4.2 Ordering of API Process for an Install Operation to a Proxy Device

Table 4-3 Order of API Process for an Install Operation to a Proxy Device

API Process	Time Out
initAgent	N/A
initVersion	N/A
Register API	N/A
Start Download API	N/A
Prep to Install API	1 minute
Install API	1 minute
Go API	30 minutes
Finish API	N/A
Deregister API	N/A

4.5 Software Download Manager Terms and Definitions

Table 4-4 Software Download Terms and Definitions

Term	Definition
DHCP	Dynamic Host Configuration Protocol.
File	A window that shows all the file sets referenced in the Software Depot configuration file, in a table format.

Table 4-4 Software Download Terms and Definitions (cont'd.)

Term	Definition
HPD Base Radio	Base Radio used within an HPD subsystem.
Multisite Base Radio	Base Radio used within a Multisite subsystem.
Operation	A task performed on selected devices specified through the Software Download Manager application.
SiteRptr	A device within an ASTRO® 25 Repeater subsystem.
Software Download Manager	Software Download
Target Device	A Multisite subsystem device, ASTRO® 25 repeater site device, or Conventional Repeater receiving the software download.
GTR 8000 Base Radio	GTR 8000 Base Radio is a standalone repeater. It includes transceiver, power amplifier, power supply, chassis, and backplane. It supports HPD, circuit based and IP-based Simulcast, IP Simulcast and conventional operation, 3600 Trunking. Site Repeater System Software is supported when it is integrated into existing QUANTAR® Site.

4.6 Software Download Manager Online Help Reference

The Software Download Manager application user interface is comprised of the following windows and window elements:

- [4.6.1 Main Software Download Window, page 4-5](#)
- [4.6.2 File Manager Window, page 4-7](#)
 - [4.6.2.1 File Manager Window Command Buttons, page 4-8](#)
- [4.6.3 Network Dialog Box, page 4-9](#)
- [4.6.4 Import a Component Into the Software Depot Dialog Box, page 4-10](#)
- [4.6.5 Create a New Component Dialog Box, page 4-11](#)
- [4.6.6 Edit a Component Dialog Box, page 4-12](#)
- [4.6.7 View Errors Dialog Box, page 4-12](#)
- Single Device Software Download wizard:
 - [4.6.8 IP Validation Window, page 4-12](#)
 - ◆ [4.6.8.1 Wizard Window Command Buttons, page 4-13](#)
 - [4.6.9 Device Options Window, page 4-13](#)
 - [4.6.10 Single Device Software Download Window, page 4-13](#)
 - ◆ [4.6.10.1 Single Device Software Download Window Commands Button, page 4-15](#)
- [4.7 Software Download Manager Error Messages, page 4-15](#)

4.6.1 Main Software Download Window



NOTE

All the fields listed below are not supported by the "GTR 8000 for 3600 Operation" Software Download (SWDL) Manager.

Table 4-5 Main Software Download Window

Field	Default	Range	Description
The Setup Connect			
Select ASTRO® 25 Site Type	Simulcast Site	Simulcast Site, Repeater Site, or HPD Site	Select the type of site for SWDL to look for
Simulcast Site – Select Site ID			
Zone	1	1 to 7	Select zone from drop-down list for which software version information is to be obtained.
Site	1	1 to 64	Select site from drop-down list for which software version information is to be obtained.
Repeater Site – Select Site ID			
Zone	1	1 to 7	Select zone from drop-down list for which software version information is to be obtained.
Site	1	1 to 100	Select site from drop-down list for which software version information is to be obtained.
HPD Site – Select Standalone or Colocated Site ID			
Zone	1	1 to 7	Select zone from drop-down list for which software version information is to be obtained.
Site	1	1 to 100 if subsite = 0, 1 to 64 if subsite > 0	Select site from drop-down list for which software version information is to be obtained.
Subsite	0	0 to 15	Select subsite from drop-down list for which software version information is to be obtained. Simulcast subsites that have HPD base radios require the user to choose a non-zero subsite ID. For a single site or a prime site HPD base radio, choose zero.
Status Messages			
N/A	N/A	N/A	(Read Only) View the subsystem validation warnings and information about the operation.



NOTE

If the device supports SNMPv3 protocol, a pop-up window appears displaying the security level option. Enter your authentication password and encryption password if the chosen security level requires inserting these credentials. See the *SNMPv3* manual for additional information.

4.6.1.1 Action Menu

Table 4-6 Action Menu

Option	Description
Load DNS	Loads DNS information.
 <p>Not supported for 3600 SWDL operations</p>	 <p>Find the appropriate DNS host file in the list and click Select. Loading DNS information takes 30 seconds or longer. The Software Download cannot perform any other operations until the DNS information is loaded. If multiple DNS files are loaded, only the last file loaded is valid.</p>
Use Standard ASTRO IPs	Obtains IP addresses based on the standard algorithm.
 <p>Not supported for 3600 SWDL operations</p>	 <p>For ASTRO® 25 LE Multisite subsystems, do not use the Use Standard ASTRO IPs option because the standard IP scheme for ASTRO® 25 LE is different from the standard ASTRO® 25 system. Use the Load DNS option instead to load an ASTRO® 25 LE configured DNS file.</p>
Use DNS Server	Obtains IPs from the DNS server.
Clean Log Files	Removes log files from the hard drive.
	 <p>A pop-up warning asks you for confirmation before proceeding. Periodically archiving and deleting log records from the hard drive is recommended.</p>

4.6.1.2 Main Software Download Window Command Buttons



NOTE

Only **Single Device Mode** is supported for 3600 SWDL operations

Table 4-7 Main Software Download Window Command Buttons

Command Button	Description
Connect	Finds a valid site controller at the selected zone and site and determines the subsystem type. Set the correct IP resolution method before connecting to the subsystem. SWDL contacts all of the devices in the subsystem and performs a validation to determine its state.
Get Version	Opens the Get Version Dialog Box to obtain specific software file set and device information for the selected application type.
Start Operation	Begins the selected operation (Transfer Only, Install Only, or Transfer and Install). The button blinks green, and displays Processing... The button is unavailable when the operation has completed and it reverts back to display Start Operation . When an operation is completed, the New button is enabled and clicking the New button enables the Start Operation button.
View Details	Displays the progress window for either the current or previous operation.
View Errors	Displays the View Errors dialog box showing detailed description of failures reported by contacted devices.
Cancel	Cancels the running operation for a transfer and install operation only. You can cancel only the install portion of the operation, and only if it has not started yet.

4.6.2 File Manager Window

Table 4-8 File Manager Window

Field	De- fault	Range	Description
Components in the Software Depot			
Label	N/A	N/A	The component label associated with the Application Type and the Fileset Version in the File table. This is the name that is visible in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.

Table 4-8 File Manager Window (cont'd.)

Field	De- fault	Range	Description
Application Type	N/A	<ul style="list-style-type: none"> • 3600 Multisite Base Radio • 3600 IntelliRepeater • Multisite Base Radio • HPD Base Radio • Conventional Base Radio • Site Repeater 	<p>The application type associated with each component in the File table.</p> <p> NOTE</p> <p>Multisite Base Radio, HPD Base Radio, Conventional Base Radio and Site Repeater are supported only in single device mode, to allow conversion from and to 3600 IntelliRepeater and 3600 Multisite Base Radio.</p>
Fileset Version	N/A	N/A	The software version information associated with each component in the File table.

4.6.2.1 File Manager Window Command Buttons

Table 4-9 File Manager Window Command Buttons

Command Button	Description
Create a New Component	Opens a Create a New Component window.
Edit a Component	Opens the Edit a Component dialog box for the selected component from the File table.

 **NOTE**

Select a component row to perform this operation.

Table 4-9 File Manager Window Command Buttons (cont'd.)

Command Button	Description
Delete	Opens the Confirm Delete Operation dialog box. You can choose to remove the selected component from the File table and the Software Depot configuration file by clicking Yes , or cancel the deletion by clicking No . A Confirm Delete Operation dialog box opens.
	 <p>Select a component row to perform this operation.</p>
Refresh	Reload the file components from the Software Depot configuration file.
	 <p>Not all file sets present in the Software Depot are visible in the File table unless they are referenced in the Software Depot configuration file.</p>

4.6.3 Network Dialog Box

Table 4-10 Network Dialog Box

Column	Description
Used	A check box is placed next to the active Network Interface Card (NIC). Only one card is used by the Software Download Manager application at a given time.
Address	The IP address of the NIC.
Name	NIC name as seen by the computer.
Display Name	NIC name used by the vendor.

4.6.4 Import a Component Into the Software Depot Dialog Box

Table 4-11 Import a Component Into the Software Depot Dialog Box

Field	De- fault	Range	Description
The Setup Connect			
Configuration File Path	N/A	N/A	Click Browse to select the path to the following configuration files: <ul style="list-style-type: none"> • swdepot.cfg • swdl.cfg • swdlv3.cfg
 <div style="background-color: #00AEEF; color: white; padding: 2px 5px; display: inline-block; font-weight: bold;">NOTE</div> <p>Most devices support SNMPv3. If the device does not support SNMPv3, choose SNMPv1.</p>			
Software Fileset Version	N/A	N/A	Select the component software file set version from the drop-down list.
Application Type	N/A	<ul style="list-style-type: none"> • 3600 Multisite Base Radio • 3600 IntelliRepeater • Multisite Base Radio • HPD Base Radio • Conventional Base Radio • Site Repeater 	(Read-only) Displays the application type corresponding to the software file set version selected <div style="margin-top: 20px;">  <div style="background-color: #00AEEF; color: white; padding: 2px 5px; display: inline-block; font-weight: bold;">NOTE</div> <p>Multisite Base Radio, HPD Base Radio, Conventional Base Radio and Site Repeater are supported only in single device mode, to allow conversion from and to 3600 IntelliRepeater and 3600 Multisite Base Radio.</p> </div>
Component Label	N/A	N/A	Enter a unique name for the new component or click Generate for an auto generated label. Generate uses the software file set version string. The Component Label is the name that appears in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.

4.6.5 Create a New Component Dialog Box

Table 4-12 Create a New Component Dialog Box

Field	De- fault	Range	Description
The Setup Connect			
Application Type	N/A	<ul style="list-style-type: none"> • 3600 Multisite Base Radio • 3600 IntelliRepeater • Multisite Base Radio • HPD Base Radio • Conventional Base Radio • Site Repeater 	<p>Select the application type that you would like to create from the available components in the drop-down list.</p> <div style="display: flex; align-items: center;">  <div style="background-color: #0070C0; color: white; padding: 2px 5px; margin-left: 5px;">NOTE</div> </div> <p>Multisite Base Radio, HPD Base Radio, Conventional Base Radio and Site Repeater are supported only in single device mode, to allow conversion from and to 3600 IntelliRepeater and 3600 Multisite Base Radio.</p>
Version	N/A	N/A	Select the component software file set version from the drop-down list.
Component Label	N/A	N/A	<p>Enter a unique name for the new component or click Generate for an auto generated label. Generate uses the software file set version string.</p> <p>The Component Label is the name that appears in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.</p>

4.6.6 Edit a Component Dialog Box

Table 4-13 Edit a Component Dialog Box

Field	Default	Range	Description
The Setup Connect			
Application Type	N/A	<ul style="list-style-type: none"> • 3600 Multisite Base Radio • 3600 IntelliRepeater • Multisite Base Radio • HPD Base Radio • Conventional Base Radio • Site Repeater 	Select the application type that you would like to edit from the available components in the drop-down list.
Version	N/A	N/A	Select the component software file set version from the drop-down list.
Component Label	N/A	N/A	<p>Enter a unique name for the new component or click Generate for an auto generated label. Generate uses the software file set version string.</p> <p>The Component Label is the name that appears in the Software Component (Version (Index)) drop-down list when you are performing a software download operation to an application type.</p>

4.6.7 View Errors Dialog Box

Table 4-14 View Errors Dialog Box

Column	Description
IP Address	The IP address of a device.
Device Name	The name of a device.
Error Code	The error code reported by a device.
Message	The message description for the error code.

4.6.8 IP Validation Window

Table 4-15 IP Validation Window

Field	Default	Range	Description
IP Address	N/A	A valid IP address	Enter the IP address of the device selected for a software download.

4.6.8.1 Wizard Window Command Buttons

Table 4-16 Wizard Window Command Buttons

Command Button	Description
Site Mode	Returns to the Main Software Download Window.
Continue	Continues to the next window of the wizard.
Back	Returns to the previous window of the wizard.
Exit	Exits the Software Download Manager application.

4.6.9 Device Options Window

Table 4-17 Device Options Window

Field	Default	Range	Description
Device Information	N/A	N/A	(Read Only) View information for the selected device, including IP address and software application type.
Upgrade Software Application	N/A	N/A	Select the check box to select the upgrade software to a device option.
Convert Software Application	N/A	N/A	Select the check box to select the convert software to a device option.

4.6.10 Single Device Software Download Window

Table 4-18 Single Device Software Download Window

Field	Default	Range	Description
IP Address	N/A	N/A	(Read Only) View the IP address for the selected device.
Transfer Mode	N/A	Clear	A device operates in the Clear Mode.
		Secure	A device operates in the Secure Mode.
		Disabled	A device does not support the Transfer operation.

Table 4-18 Single Device Software Download Window (cont'd.)

Field	Default	Range	Description
Operation Type	Transfer Only	<ul style="list-style-type: none"> • Transfer Only • Install Only • Transfer and Install 	<p>Select one of the following software download operations from the drop-down list:</p> <p>Transfer Only: This operation transfers (but does not install) new versions of software. Transferring software takes an hour or more. The Transfer Only operation can occur at any time since call processing is not interrupted.</p> <p>Install Only: This operation installs software that has already been transferred to the device. Installing takes several minutes. Only software that has already been transferred using Software Download can be installed.</p> <p>Transfer and Install: This operation includes both the transfer and installation of new software. The Install occurs immediately after the Transfer operation. Transferring software takes an hour or more, while installing only takes several minutes. If you cancel the Transfer and Install operation during the Transfer operation, the Transfer operation finishes to ensure that incomplete files are not installed on a device. If a failure occurs during the Transfer operation, the Install does not occur. The Transfer and Install operation cannot be stopped during the Install operation.</p>
Application Type	The last selected application type	<p>Upgrade/Convert Software Application:</p> <ul style="list-style-type: none"> • 3600 Multisite Base Radio • 3600 IntelliRepeater • Multisite Base Radio • HPD Base Radio • Conventional Base Radio • Site Repeater 	<p>Select the application type for a software download from the drop-down list.</p> <div style="text-align: right;">  <div style="background-color: #00AEEF; color: white; padding: 2px 5px; display: inline-block;">NOTE</div> </div> <p>Multisite Base Radio, HPD Base Radio, Conventional Base Radio and Site Repeater are supported only in single device mode, to allow conversion from and to 3600 IntelliRepeater and 3600 Multisite Base Radio.</p>

4.6.10.1 Single Device Software Download Window Commands Button

Table 4-19 Single Device Software Download Window Commands Button

Command Button	Description
New	Opens a new software download session. The button is unavailable when you click the Start Operation button. The button is enabled when the operation is complete.
Connect	Finds a valid site controller at the zone and site selected and determines the subsystem type. Set the correct IP resolution method before connecting to the subsystem. SWDL contacts all of the devices in the subsystem and performs a validation to determine its state.
Get Version	Opens the Get Version Dialog Box to obtain specific software file set and device information.
Start Operation	Begins the selected operation (Transfer Only, Install Only, or Transfer and Install). The button blinks green, and displays Processing... The button is unavailable when the operation has completed and it reverts back to display Start Operation . When an operation is completed, the New button is enabled and clicking the New button enables the Start Operation button.
View Details	Displays the progress window for the current operation.
View Errors	Displays the View Errors dialog box showing detailed description of failures reported by contacted devices.
Cancel	Cancels the running operation.
Site Mode	Opens the Main Software Download Window . This button is unavailable once the operation has started and is re-enabled when the operation is complete.

4.7 Software Download Manager Error Messages

This section describes errors that can occur when performing operations in SWDL.

4.7.1 Unrecoverable Error Messages

Table 4-20 Unrecoverable Error Messages

Error Message	Possible Cause
Malformed packet: contact Motorola.	More devices are selected for download than the file set version information available (for example, you select two devices for download but only enter the file set version for one).
Requested file sets not found.	The file set selected is not available in the Software Depot.
File not found.	The file cannot be located by SWDL.

Table 4-20 Unrecoverable Error Messages (cont'd.)

Error Message	Possible Cause
Subsystem build error. For a single device Software Download operation, check that the IP entered is valid and the device type selected is correct. For centralized SWDL, check zone and site information and check that the correct IP resolution method has been selected if Domain Name Server (DNS) is not available.	Some possible causes are: <ul style="list-style-type: none"> An invalid zone ID passed into the buildZone method for the RSBuilder class. An exception returned from the buildSubsystem method of the RSBuilder. A REQUESTSTATUS_FAILED message returned from the buildSubsystem method of the RSBuilder - tests described in parentheses: (Device mismatch - different MIB than device selected by user). (Invalid IP - no simulator started). (Connection lost - simulator stopped after operation started). (No entry in MIB version table).
Unsupported transaction - contact Motorola.	You have selected a transaction other than TRANSFER, INSTALL, or TRANSFER_AND_INSTALL.
General error - contact Motorola.	The Operation is not able to start a thread.
Subsystem not found - contact Motorola.	The subsystem type is invalid. The range of this variable is constrained by the SWDL interface.
Get Version request failed to find device or any of its proxies.	You have entered an incorrect zone and/or site for a Get Version operation. For a single device Software Download, you have entered an invalid IP address for a Get Version operation.
No configuration information available for device type selected.	An invalid file was entered in the file selection box when browsing to get version information for a download.
Subsystem Unconfigured. No channels and/or subsites have been configured through the CSS application or Network.	Ensure that these subsystem parameters are configured properly. Set all devices in the subsystem to be configured using the CSS application.
Unable to set the In-session flags of the devices in the specified subsystem.	Some possible causes are: <ul style="list-style-type: none"> The subsystem is configured to send back an error when trying to set the In-session flags. You selected No when queried by the program if you want to clear the flags when they are already set.
Version Table Error	This message appears when SWDL cannot retrieve an agent's version table. The version table includes the VLAN number, running/alternate version string, version index, and so forth.
Wrong type file set	This message appears when value of appropriate OID (1.3.6.1.4.1.161.3.5.1.7) is not equal to 6 (file set).

Table 4-20 Unrecoverable Error Messages (cont'd.)

Error Message	Possible Cause
Wrong operation status	This message appears when the file set is valid but the value of OID (...13) is not one of following numbers: 3 (in Use), 2 (Present) or 4 (Transferred).
Wrong location ID	This message appears when the file set is valid (6), operation status is good, but the location ID is wrong. Location ID is the number of the bank where the software resides. It should be equal to 1 (RAM) for the Running or Alternate version.

4.7.2 File Error Messages

Table 4-21 File Error Messages

Error Message	Possible Causes	Solution
Error compiling user choices: No file set Versioning Failure of Progress Meter Appearance selected	You attempted to create components for application types whose file sets are not present in the Software Depot.	File sets should be imported into the Software Depot using the Import file set dialog in order to see them in the versions combo-box.
The file C:\swdepot.remote\xfer\HPDBR\v1\swdl\swdl is not a valid file in your file system. Please try again.	You selected an invalid filename for import. The SWDL only allows the following files for import: <ul style="list-style-type: none"> swdepot.cfg swdl.cfg swdlv3.cfg 	Choose only one of {swdl.cfg, or swdepot.cfg} for import.
 NOTE		
Most devices support SNMPv3. If the device does not support SNMPv3, choose SNMPv1.		
Fileset Import Failed: The file sets were successfully transferred, but there was an error in autogenerating the configuration file C:\swdepot\swdepot.cfg	<ul style="list-style-type: none"> The file permission for swdepot.cfg has been changed to read-only. The directory in which swdepot.cfg is placed has write-protected/restricted access. 	Ensure that you have permissions to create/modify a file in the directory specified in the SWDEPOTPATH parameter in applparams.cfg. See “Changing Folder Location (Default and Non-Default)”.

Table 4-21 File Error Messages (cont'd.)

Error Message	Possible Causes	Solution
Fileset Import Failed: Error Details: E:\swdepot\xfer\CM\v1\b1_4.bin (The parameter is incorrect). The file set components are not added to the Software Depot configuration file.	<ul style="list-style-type: none"> The FTP / SFTP server login directory set in the users.dat file either does not exist or is write-protected. The directory in which swdepot.cfg is placed has write-protected/restricted access. 	Ensure that you have appropriate space/permissions to create/modify a file in the directory specified in the users.dat file. See “Changing Folder Location (Default and Non-Default)”.
Retrieving the file sets from the remote Depot returned the error: Error during parsing C:\HPDSC_SWDL\swdl\swdl.cfg. Parser error: Found more than one file set declaration in the file C:\HPDSC_SWDL\swdl\swdl.cfg.between line numbers: 18 and 27 line 18: FileSetName="HPD Site Controller" line 27: HardwareId="0x04,0x05,0x06" Please contact the System Administrator to solve this problem.	The file set configuration file has more than one FileSet declaration. The SWDL considers file set configuration files with more than one file set component as invalid.	Remove any redundant/unnecessary FileSet declarations in the file set configuration file.