grass valley

7600REF
REFERENCE GENERATORS

Release Notes

Software Version 5.0.0.4

Contacting Grass Valley

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Grass Valley Web Site

The www.grassvalley.com web site offers the following:

Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

FAQ Database — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

Software Downloads — Download software updates, drivers, and patches.

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END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.

For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.grassvalley.com/about/environmental-policy

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Version 5.0.0.4

APRIL 2012

7600REF Reference Generators Release Notes

Introduction

These release notes provide instructions and important information on upgrading the 7600REF Reference Generator software from v3.0.0.8 to v5.0.0.4.

These release notes contain the following sections:

- 7600REF 5.0.0.4 Software Overview ()
- Software Update Instructions ()

7600REF v5.0.0.4 Software Overview

This version of 7600REF software fixes some errors and adds functionality as described below.

- In the 7600MHD-REF model, a timecode jump that would occur when the unit was locked to GPS (10 units) has been fixed (38243).
- A new Remote User Interface accessed via a web browser allowing:
  - Simplified firmware upgrade,
  - Simplified addition of proprietary test patterns,
  - Status screen for at-a-glance error reporting, and
  - Simplified configuration.
- Black Burst and SDI timing alignment improved.
- NTP Server improved, allowing wider compatibility.
- Timecode user bits are adjustable allowing compatibility with SMPTE 309M.

- The number of SDI embedded audio channels has been increased to 16 and menus have been altered for ease of operation.

- Bootloader has changed to allow recovery from failed firmware upgrades.

- UTC offset is maintained through power cycle.

- GPI control over configuration "slots".

- Visible Timecode can be embedded on the test patterns.

- Improved boot time.

- HD-SD jitter has been improved.

- Improved GPS time accuracy.

- Genlock VITC lock added.

- Improved SNMP support.

- GPS, decreased number of 1PPS outages.

- Menu displays option card firmware.

Note   Disregard any information about 3G capability in 7600REF manuals. This functionality is not available at this time.

7600REF v5.0.0.4 Update Instructions

This upgrade process is carried out in three stages:

1. Upgrade the Bootloader using a TFTP server.

2. Upgrade the Firmware using a web browser.

3. Upgrade the Ancillary files using a web browser.

Preparation

You will need the following:

1. A PC running Windows XP or later.

2. The PC and the 7600REF frame connected to an Ethernet network using a switch or a direct connection from a PC to the frame. See **Note** below.

   Note   If you have a newer laptop or desktop computer that can auto-detect the network cable used, a standard cable can be used to connect from the PC directly to the 7600REF frame.

3. The two required upgrade files downloaded from the GV ftp site at the following URL (file names listed below):

   ftp://ftp.grassvalley.com/modular/

   • bootrom.bine

   • gv-5.0.0.4.spg

Check the following:

1. The current 7600REF software version. Confirm this from the 7600 front panel by selecting <Status>, <7600REF Info>, <Software Version>. If the version displayed is anything other than v3.0.0.8, please contact Customer Service for assistance. Refer to *Contacting Grass Valley* on page 2.

2. The version of Altera device installed. Confirm this from the 7600REF front panel by selecting <Status>, 7600REF Info>, <Altera>. If the version displayed is v25, please contact Customer Service.

Set the following:

1. Your 7600REF must have an appropriate IP Address to contact the TFTP server. During the upgrade process, you must use a static IP Address.

2. Confirm and, if necessary, change the network connection mode of the 7600REF from the front panel by selecting <setup>, <More>, <Comms>, <Network>, <Connection Mode> and choose <Fixed>. If your normal mode is to use DHCP, you can revert to this mode following the upgrade.

CAUTION During the upgrade, any saved configurations will be lost and must be re-created.

Upgrade the Bootloader using a TFTP Server

Preparing a TFTP Server

Solarwinds is a lightweight TFTP server, suitable for this process. It is easy to install on PCs running Windows XP or later. It is available as a free download by entering http://www.solarwinds.com into your web search engine.

1. Install Solarwinds on a PC which is network accessible by the 7600REF. To simplify the process, both the PC and the 7600REF should be configured with static IP addresses.

2. After installation, from the Windows startup menu, launch Solarwinds TFTP software and select Configuration from the File menu.

3. Select the Security tab (Figure 1) and ensure the **Transmit and Receive files** option is chosen.

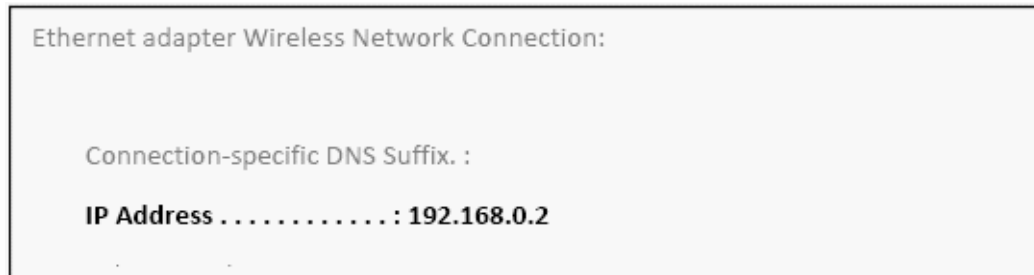**Note**   On later versions of Solarwinds, this is labeled **Transmit**.

Figure 1. Solarwinds Security Tab
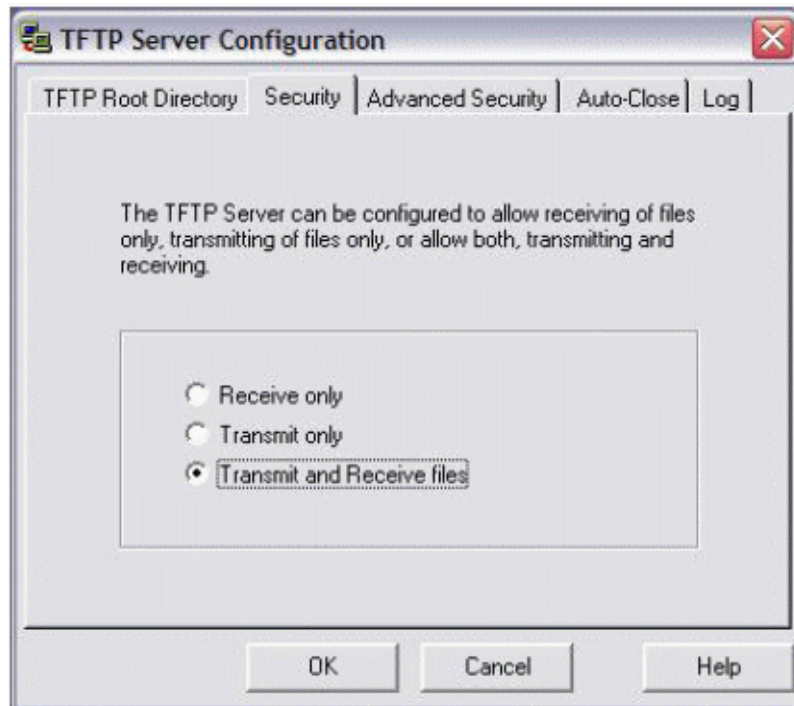
4. Using Windows Explorer, copy the file, bootrom.bine, into the TFTP root folder normally located at C:\TFTP-root. You may be required to create this folder manually.

5. Do not put the gv-v5.0.0.4.spg file in the TFTP root folder. It is needed for the upgrade using the web browser later in this procedure.

6. Ensure the Solarwinds server has started: a message will appear in the Solarwinds status window.

7. Note the IP address of the TFTP server. On the PC, select **Run** from the Windows Start menu. Type **cmd** then press **OK**. A command prompt window will open. Type **ipconfig** and press **Enter**. From the text which returns, locate the IP Address as shown in Figure 2.

Figure 2. Solarwinds Server Start Message

Ethernet adapter Wireless Network Connection:

Connection-specific DNS Suffix. :

IP Address . . . . : 192.168.0.2

Preparing the 7600REF

1. Power up the 7600REF and wait for initialization to complete.

2. Ensure the IP address of the 7600REF is set correctly by navigating to <Setup>, <More>, <Comms>, <Network>, < IPAddress>. Make a note of this address for later.

3. Navigate the 7600REF to < Setup >, < More >, <Upgrades >, <Server>, < Server Address>. Enter the IP address of the TFTP server PC and press **OK**.

Completing the Bootloader Installation Process

1. Navigate the 7600REF to <Setup >, < More >, <Upgrades>, <Bootloader>, and press <OK> twice following the directions on the display.

    If successful, a message, "Bootloader upgrade complete" appears on the display.

2. At this point, power-cycle the 7600REF by unplugging both AC cords to reboot the frame.

CAUTION   Do not skip the above power-cycle. Doing so will disable your frame.
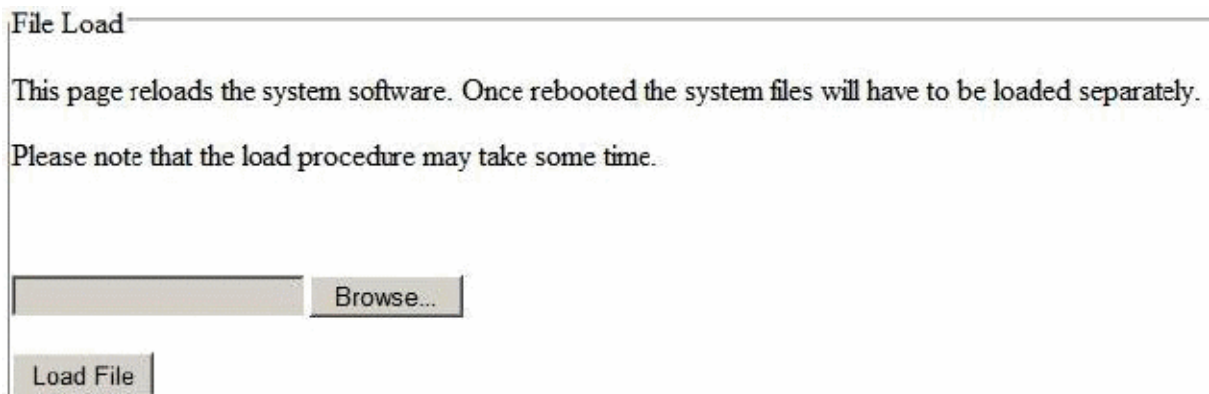
Upgrade Using the Web Browser

There are two steps to finishing the upgrade, upgrading the 7600REF firmware and updating the ancillary files. Both of these upgrades use the file, gv-v5.0.0.4.spg and the web browser.

Upgrading Firmware

1. After the frame has power-cycled from the last bootloader step, adjust the IP address on the front of the 7600REF to reflect the previously configured IP address.

2. Browse to the 7600REF using Internet Explorer or similar browser software. With most web browsers you can simply type the 7600REF IP Address (e.g. 192.168.0.3) into the address bar and press **Enter**. As the new Bootloader is installed but the new firmware is not present you will see the "Boot Recovery" page (Figure 3).

Figure 3. Boot Recovery Page

File Load

This page reloads the system software. Once rebooted the system files will have to be loaded separately.

Please note that the load procedure may take some time.
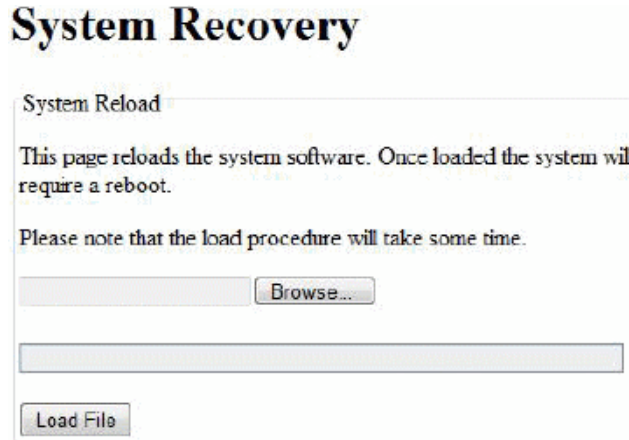
[Browse...]

[Load File]

3. Click the **Browse** button and navigate to the supplied .spg file, gv-v5.0.0.0.spg on your PC, and click **Load File**. Wait for the software to load (this can take up to 8 minutes) and then click the **Reboot** button when prompted.

4. On reboot, there will be a message on the 7600REF front panel concerning Incompatible Defaults. This may safely be ignored.

Update Ancillary Files

1. Check, and if necessary set, the correct IP Address for the 7600REF. Next, browse once again to this address and you will see the System Recovery page (Figure 4).

Figure 4. System Recovery Page

System Recovery

System Reload

This page reloads the system software. Once loaded the system will require a reboot.

Please note that the load procedure will take some time.

[   ] [Browse...]

[   ]

[Load File]

2. Click the Browse button and navigate again to the supplied .spg file, gv-v5.0.0.4.spg.

3. Click **Load File**.

4. When the system recovery is complete, the System Recovery –Update Successful page will appear (Figure 5).

Figure 5. System Recovery – Update Successful

System Recovery

System Reload

Update successful

System needs rebooting.

[Reboot]

5. Click **Reboot** when prompted.

6. The 7600REF should now restart with a fully operational version of V5 Firmware installed. (Check in <Status >, <7600REF Information>).

7. If the 7600REF halts with an on-screen message Initialising System, disconnect the power. Then re-power the 7600REF while holding the **Setup** button.

8. Select <Default BBSRAM> from the front panel and follow the prompts to reset the memory. This happens instantly: from the same menu, select **Exit** and the 7600REF will re-start.

The upgrade is now complete.

Web Browser Application Login

1. To access the web interface application, type in the currently assigned IP address of the unit into the web browser address line.

2. A default user-name and password is assigned for access:

• Username: **admin**

• Password: **admin**

Note   The user name and password settings can be modified on the web browser IP/Login web page.