



Trinix

Broadlinx Software

Release Notes
Software Version 3.0.2



Affiliate with the N.V. KEMA in The Netherlands



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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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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 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment



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Broadlinx Release Notes

Purpose

This document provides information about the new features and the software installation instructions for the 3.0.2 software release of the Broadlinx software.

Note For information about 3Gbs support, see the 3.0.1 release notes.

CAUTION Installation of this upgrade will interrupt video signals passing through the system. The length of this interruption will vary depending on system size and specific procedures used. Users of this equipment should consult with Grass Valley Technical Support personnel before proceeding.

Interoperability Requirements

- Any Encore system that is newer than version 1.7.3
- Any Jupiter system.

Related Documents

Trinix Planning and Installation Manual (Part # 071827608).

New Features

The main improvement in the 3.0.2 version of the Broadlinx software is the ability to update the FPGA firmware on multiple boards at the same time. This improvement will reduce the time it takes to update the FPGA firmware because it will update a group of boards in approximately the same

amount of time it takes to update one board. This improvement can happen due to two new Broadlinx commands:

- **updateFpgaGroup**: Updates the FPGA firmware on a selected group of boards.
- **restartFpga**: Restarts a select group of boards.

These commands will only update older firmware versions or in other words, firmware versions that are out of date. However the ability to force an update regardless of the firmware version is included in the release.

Updating the FPGAs Firmware

The steps needed to update the FPGAs Firmware are:

1. Installing the new 3.0.2 version of the Broadlinx software.
2. Updating the Re-loader and Loader firmware.
3. Updating the FPGAs firmware for a group of boards.
4. Restarting the updated boards

Each of these steps is described in detail below.

Installing the new 3.0.2 version of the Broadlinx Software

Note No installation is required to update new Broadlinx boards; Broadlinx boards are shipped with the current version of software installed.

The Steps needed to install the latest version of Broadlinx on existing boards are covered in the Broadlinx chapter of the *Trinix Planning and Installation Manual* (Part # 071827608).

Updating the Re-loader and Loader Firmware

Note The Re-loader and Loader Update procedure will not affect on-air operations.

Follow these steps to update all the boards within the frame (except an active NR-33000 card):

1. Connect to the Trinix NR-33000 (Broadlinx) board via a console session on a PC using either a serial connection or an Ethernet/ Telnet connection.
2. Open a console window associated with the active NR-33000.

Note HyperTerminal was the application that was used for the connection in these steps. The information may look different from what you see.

3. Type:

```
sendLoader -1
```

At the command prompt.

Note If the window shows a continuous list of “Bad FPGA data” etc., messages, enter the task suspend command `ts tLogger` to halt the logger process. Then re-enter the `sendLoader` command.

The system will then respond with the following console message; separate progress messages will be displayed for each board in the frame:

```
Suspend Health Check
Frame 00, Slot 08
Send reloader to frame 0 slot 8 (class 2, type 4)
100% done
Send succeeded for frame 0 slot 8
Send loader to frame 0 slot 8 (class 2, type 4)
100% done
Send succeeded for frame 0 slot 8
100% done...
```

and so forth.

Progress will also be indicated by red LEDs illuminating on the boards as they are updated.

4. Update the inactive NR- 33000 board after the frame boards have been updated:**a.** If the inactive NR is in the Primary slot, type:

```
sendLoader 10,0,0
```

b. If the inactive NR is in the Secondary slot, type:

```
sendLoader 10,0,1
```

The system will then respond with the following console message:

```
Suspend Health Check
Frame 00, Slot 01
Send reloader to frame 0 slot 1 (class 2, type
10)
100% done
Send succeeded for frame 0 slot 1
Send loader to frame 0 slot 1 (class 2, type 10)
100% done
Send succeeded for frame 0 slot 1
100% done
Frame 00, Slot 08 Release tributary bus
Resume Health Check
value = 0 = 0x0
```

and so forth

Press the **Enter** key to restore the command line prompt after you see the “Firmware Update Succeeded” message.

5. Update the active NR-33000 card:

- a.** If the active card is in the Primary slot, type, enter:

```
sendLoader 10,0,0
```

- b.** If the active card is in the Secondary slot, enter:

```
sendLoader 10,0,1
```

The system will then respond with the following console message:

Note A separate progress messages will be displayed for the re-loader, loader and firmware update.

```
Suspend Health Check
Frame 00, Slot 00
Send reloader to frame 0 slot 0 (class 2, type 10)
100% done
Send succeeded for frame 0 slot 0
Send loader to frame 0 slot 0 (class 2, type 10)
100% done
Send succeeded for frame 0 slot 0
20000123.154540: Firmware update requested for
frame
0 slot 0 (class 2, type 10).
(slaveDevice.cc:169)
100% done
Frame 00, Slot 01 Release tributary bus
Resume Health Check
value = 0 = 0x0
```

The Re-loader and Loader firmware is now current.

Updating the FPGAs Firmware for a Group of Boards

The FPGAs firmware can be updated using the `updateFpgaGroup` command.

This section will describe how to find the board type, update the FPGA firmware on a group, and how to force an update.

Follow these steps to update the FPGAs firmware for a group of boards:

1. Connect to the Trinix NR-33000 (Broadlinx) board via a console session on a PC using either a serial connection or an Ethernet/ Telnet connection.
2. Open a console window.

Selecting the Board Type

You need to know the board type ID to update that board.

1. Enter

```
deviceListShow
```

At the command prompt. The device list will then appear. The available boards and information about the frame will be displayed.

```

--- DeviceList -----
-----

```

Frame information →

```

Device Hardware: TRINIX NXT 256x512
                Frames: 16 (0 to 15)
                Slots: 64 (0 to 63)

```

App FPGA

Available boards →

FR	SL	clas	type	ver	ver	Name
00	00	2	10	8	21	NR-33000
00	28	2	25	9	8	HO-33300-3G
00	29	2	25	9	8	HO-33300-3G
00	30	2	25	9	8	HO-33300-3G
00	31	2	25	9	8	HO-33300-3G
00	32	2	26	7	1	HI-33300-3G
00	33	2	26	7	1	HI-33300-3G
00	34	2	26	7	1	HI-33300-3G
00	35	2	26	7	1	HI-33300-3G
00	48	2	25	9	8	HO-33300-3G
00	49	2	25	9	8	HO-33300-3G
00	50	2	25	9	8	HO-33300-3G
00	51	2	25	9	8	HO-33300-3G

```

-----
-- DeviceList ---

```

- Select the board type that you want to update. The 3G Input board (HI-33300-3G HD/SD Input - 3G) is type 26. This is the board type that will be used in the rest of the examples.

Updating the FPGA Firmware For a Group

1. Type

```
updateFpgaGroup 26
```

At the Command prompt.

The following will then occur:

- The lights on the selected boards will then go red.
- The update process will then look for and then report the selected board types in the different slots.

For example:

```
value = 0 = 0x0

Trinix1 > 20000528.000111: FPGA update
requested for frame 0 slot 32 (class 2, type
26). (deviceMaster.cc:977)
```

The search progress is displayed by a percent, when it is finished 100% done will be displayed. See the text below:

```
value = 0 = 0x0

Trinix1 > 20000528.000111: FPGA update
requested for frame 0 slot 32 (class 2, type
26). (deviceMaster.cc:977)

20000528.000111: FPGA update requested for
frame 0 slot 33 (class 2, type 26).
(deviceMaster.cc:977)

20000528.000111: FPGA update requested for
frame 0 slot 34 (class 2, type 26).
(deviceMaster.cc:977)

20000528.000111: FPGA update requested for
frame 0 slot 35 (class 2, type 26).
(deviceMaster.cc:977)

20000528.000111: Updating: 4 FPGA(s) for group
8582 (class 2, type 26). (deviceMaster.cc:1015)

100% done
```

The update process will then begin. When a card is updated a report will tell you if the update was a success or not and that the card must be restarted. See the text below.

```
20000528.001749: FPGA update succeeded for
frame 0 slot 32, new version is 2. Card must be
re-powered to use new version. (deviceMa)
```

20000528.001749: FPGA update succeeded for
frame 0 slot 33, new version is 2. Card must be
re-powered to use new version. (deviceMa)

20000528.001749: FPGA update succeeded for
frame 0 slot 34, new version is 2. Card must be
re-powered to use new version. (deviceMa)

20000528.001749: FPGA update succeeded for
frame 0 slot 35, new version is 2. Card must be
re-powered to use new version. (deviceMa)

20000528.001749: Updated: 4 FPGA(s) for group
8582 (passed 4, failed 0).
(deviceMaster.cc:1079)

100% done

The lights on the selected boards will remain red.

Verifying that the Update was Successful

You can verify that an update was successful by using the `deviceListShow` command.

1. Type

```
deviceListShow
```

At the command prompt. The device list will then appear. All updated boards will have an asterisk by the version number.

See the example below:

```

--- DeviceList -----
-----
Device Hardware: TRINIX NXT 256x512
          Frames: 16 (0 to 15)
          Slots: 64 (0 to 63)
          App FPGA
FR SL clas type ver ver  Name
-- -- ---- ---- --- --  -
00 00  2  10   8  21  NR-33000
00 28  2  25   9   8  HO-33300-3G
00 29  2  25   9   8  HO-33300-3G
00 30  2  25   9   8  HO-33300-3G
00 31  2  25   9   8  HO-33300-3G
Updated boards → 00 32  2  26   7  1* HI-33300-3G
                  00 33  2  26   7  1* HI-33300-3G
                  00 34  2  26   7  1* HI-33300-3G

```

2. Restart the boards.

Restarting the Updated Boards

The updated boards must be restarted for the firmware to be activated.

Follow these steps to restart the recently updated boards:

1. Type

```
Trinix1 > restartFpga -1
```

At the command prompt.

The system will then respond with the following console message:

```
value = 0 = 0x0

Trinix1 > 20000528.001933: Restart FPGA in frame 0
slot 32 (class 2, type 26). (slaveDevice.cc:640)

20000528.001934: Restart FPGA in frame 0 slot 33
(class 2, type 26). (slaveDevice.cc:640)

20000528.001935: Restart FPGA in frame 0 slot 34
(class 2, type 26). (slaveDevice.cc:640)

20000528.001935: Restart FPGA in frame 0 slot 35
(class 2, type 26). (slaveDevice.cc:640)
```

The FPGAs have been updated. The lights on the selected boards will then turn green.

Using Command Options

This section describes what will happen if a board type is not identified when the `updateFpgaGroup` is entered and how to force an update.

Board Type Was Not Specified

When a board type is not specified and only the `updateFpgaGroup` command is entered at the command prompt, a list of options will appear as well as the available board types.

For example: Type

```
Trinix1 > updateFpgaGroup
```

at the command prompt. The following text will be displayed.

List of options



```
Usage: updateFpgaGroup boardType [,force]

boardType is the card type,

force value of 0 = only update boards that are
out-of-date,

force value of 1 = force update all boardType
regardless of version
```


Board types

```

Currently available boardTypes:
    boardType  2  HI-33110  HD  Input
    boardType  4  SI-33110  SD  Input
    boardType  6  HO-33110  HD  Output
    boardType  8  SO-33110  SD  Output
    boardType  9  DM-33100  Fabric
boardType 10  NR-33000  BroadLinX  Controller
    boardType 14  SR-33000  Sync  Reference
    boardType 11  RP-33500  Rear  Panel
    boardType 12  SR-33500  Sync  Reference
    boardType 15  DM-33501  Fabric
    boardType 16  DM-33502  Fabric
    boardType 17  HI-33120  HD/SD  Input
    boardType 18  HO-33120  HD/SD  Output
    boardType 19  VI-33100  Video  Input
    boardType 20  HI-33200  HD/SD  Input

```

Forcing an Update

Entering a coma and then the number “1” after the `updateFpgaGroup` command will force all boards for the selected type to update regardless of the FPGA version.

For example:

```
updateFpgaGroup 26 ,1
```

The process will be similar to what is described in *Updating the FPGAs Firmware for a Group of Boards* [on page 7](#).

Troubleshooting

If you type the commands in correct but they do not respond, restart the boards. Re-type the commands after the boards have restarted.

Follow these steps to restart the board.

1. Enter
reset
at the command prompt. The boards will then start the reset process.
2. Ignore the prompt that says, "Press any key to stop auto-boot..." The prompt will time-out and the auto-boot process will then start.
3. Re-type the preferred command.

Encore Resync Comm

The Matrix Board configuration (Output and Input) is removed from the previous Primary matrix controller and are added to the current Primary matrix controller when you are doing Broadlinx switchover.

If a Take is being done and the boards have not yet been added to the new controller, the physical switching will not happen. However, the RCE will indicate that the Take was successful.

Takes that are issued during a switchover will physically switch the video by doing a Resync comms command after the Matrix boards have been added to the Primary controller.