BrightSign®

TECHNICAL NOTES

Editing Firmware Update Files in BSNEE

INTRODUCTION

BSNEE uses two mechanisms to distribute firmware updates: the API/WebUI allows users to distribute firmware updates to groups, while BrightAuthor provides beta, production, and minimum-compatible firmware versions that can be downloaded and bundled with player setup files. In both cases, BSNEE uses XML files in the *Resources* folder of the Persistent Storage site to determine which firmware updates are available for distribution.

This tech note outlines how to edit the XML files to include different firmware versions for distribution.
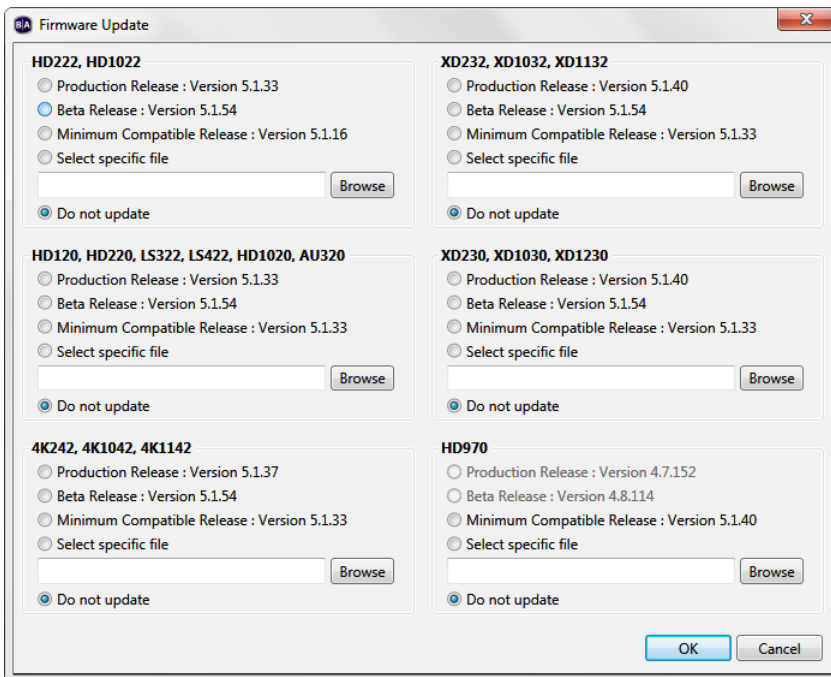
*The **Firmware Update** window in BrightAuthor*
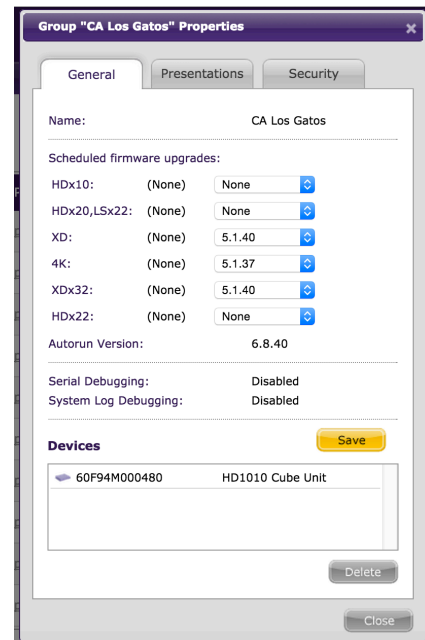
*The **Group Properties** window in the WebUI*

WebAPI/WebUI (BSNEE ver 3.9)

Locate and open the *WebUIAutorun.xml* file located in the *Resources* folder of the Persistent Storage site.

The file will contain an `<autorun>` entry for each compatible BrightAuthor autorun. Each `<autorun>` entry contains several `<minFirmware>` elements: Each denotes a specific minimum firmware version for a specific set of player models. Note that, unlike the BSNEE 4.0 WebAPI/WebUI, you cannot add new firmware file elements—you must modify the files that are already listed:

- `<firmware uses="WebUI">`: If you include the `uses="WebUI"` attribute and value, users will be able to select the firmware version in the **Scheduled firmware upgrades** dropdown list of the WebUI **Group Properties** window; otherwise, the update file will only be selectable via WebAPI calls.
  Note: *For the changes to take affect in the WebUI, you must restart the BSNEEWebSite and BSNEEWebServices application pools in IIS.*
    - `<family>`: The player model family to which the firmware update applies. The family code names correspond to the model numbers as follows:
        - `Tiger`: 4Kx42
        - `Lynx`: XDx32
        - `Cheetah`: XDx30
        - `Bobcat`: HDx22
        - `Panther`: LSx22, HDx20
        - `Monaco`: HDx10
    - `<version>`: The version number of the firmware update in X.Y.Z format
    - `<versionNumber>`: The version number of the firmware update calculated using the following expression: `X*256*256+Y*256+Z` (where the version number corresponds to X.Y.Z)
    - `<link>`: The local-path URL of the firmware update file
    - `<sha1>`: The SHA1 checksum of the firmware update file
    - `<filelength>`: The size of the firmware update file (in bytes)

WebAPI/WebUI (BSNEE ver. 4.0)

Locate and open the *BSNFirmwares.xml* file located in the *Resources* folder of the Persistent Storage site.

The file should contain several `<firmware>` elements; each element denotes a specific firmware version for a specific set of player models. You can either add new `<firmware>` elements (increasing the available versions for distribution) or edit the existing ones:

- `<firmware uses="WebUI">`: If you include the `uses="WebUI"` attribute and value, users will be able to select the firmware version in the **Scheduled firmware upgrades** dropdown list of the WebUI **Group Properties** window; otherwise, the update file will only be selectable via WebAPI calls.

Note: *For the changes to take affect in the WebUI, you must restart the BSNEEWebSite and BSNEEWebServices application pools in IIS.*

- o `<family>`: The player model family to which the firmware update applies. The family code names correspond to the model numbers as follows:
    - `Tiger`: 4Kx42
    - `Lynx`: XDx32
    - `Cheetah`: XDx30
    - `Bobcat`: HDx22
    - `Panther`: LSx22, HDx20
    - `Monaco`: HDx10
- o `<version>`: The version number of the firmware update in X.Y.Z format
- o `<versionNumber>`: The version number of the firmware update calculated using the following expression: `X*256*256+Y*256+Z` (where the version numbers correspond to X.Y.Z)
- o `<link>`: The local-path URL of the firmware update file
- o `<sha1>`: The SHA1 checksum of the firmware update file
- o `<filelength>`: The size of the firmware update file (in bytes)

BrightAuthor

Locate and open the *FirmwareCompatibilityFile.xml* file located in the *Resources* folder of the Persistent Storage site.

The file should contain several `<FirmwareFile>` elements; each element denotes a specific firmware version for a specific set of player models. Note that, unlike the BSNEE 4.0 WebAPI/WebUI, you cannot add new firmware file elements—you must modify the files that are already listed:

- `<FirmwareFile>`
    - o `<family>`: The player model family to which the firmware update applies. The family code names correspond to the model numbers as follows:
        - `Tiger`: 4Kx42
        - `Lynx`: XDx32
        - `Cheetah`: XDx30
        - `Bobcat`: HDx22
        - `Panther`: LSx22, HDx20
        - `Monaco`: HDx10
    - o `<type>`: The firmware-update type, which can be one of the following:
        - `Production`
        - `Beta`
        - `Minimum Compatible`
    - o `<BAVersion>`: The target BrightAuthor version for the `<FirmwareFile>` element.
    - o `<version>`: The version number of the firmware update in X.Y.Z format

- o `<versionNumber>`: The version number of the firmware update calculated using the following expression: $X*256*256+Y*256+Z$ (where the version numbers correspond to X.Y.Z)
- o `<link>`: The URL of the firmware update file. The default location is the *Resources* subfolder.
- o `<sha1>`: The SHA1 checksum of the firmware update file
- o `<filelength>`: The size of the firmware update file (in bytes)