



# FIRMWARE RELEASE NOTES

Version 6.2.45 (BrightSign 4Kx42, XDx32, HDx22)

## Changes Since 6.1.76

### Known Issues / Limitations

- YouTube live streams do not work currently (however, non-live streams are supported).
- The `latency` parameter no longer affects latency when appended to a streaming URL (though playback will still work). To configure streaming latency, use the new *roVideoPlayer.SetProperties()* method in BrightScript or "brightsign-properties" attribute in the HTML `<video>` tag.

### End-User Notes

#### New Features

- On-screen device setup
- New **Factory Reset** option in the **Control** tab of the DWS

#### Improvements

- The framerate of HTML 2D canvas animations has been improved.
- The new `low_latency` parameter for RTSP streams allows you to achieve much lower latency than normal, but at reduced maximum bitrates: "rtsp://example/media.amp?low\_latency".
- The interface for uploading/deleting files on the Diagnostic Web Server has been improved.
- The file and directory ordering in the **Storage** tab of the DWS has been improved. For example, files are now listed in alphanumeric order, making it easier to locate the newest device screenshots.

- (4Kx42, XDx32) The DWS now reports whether the player is using Type 1 (12.5W) or Type 2 (25W) PoE.
- If the file-system check is taking a long time at startup, the splash screen will display "Checking FileSystems...".

### **Bug Fixes**

- If a video stream is paused and then restarted, attempting to pause it a second time now works.
- Tickers now correctly render all characters in long UTF-8 strings.
- Displaying multiple scrolling tickers no longer causes them to flicker.
- Rather than causing the player to crash, attempting to display more than 10 scrolling tickers (or nine if there is a mouse cursor) now simply doesn't work.
- Screenshots now correctly represent display output when it contains 1080i video playback.
- Tapping a multi-touch screen several times in a short span of time no longer causes the player to crash.
- (4Kx42) Video zones and Background Image zones can once again be displayed simultaneously.
- (4Kx42) Bitrate spikes in 4K playback are now handled more smoothly.
- (4Kx42) The Format Storage feature in the DWS has been fixed.

## Developer Notes

### New Features

- New `SetProperties()` and `GetProperties()` methods for the *roVideoPlayer* object, as well as a new "brightsign-properties" attribute for the HTML `<video>` tag. These allow you to specify various video attributes (streaming latency, z-order, rotation, etc.) using a single string or associative array.
- New `SetUserAgentSuffix()` and `GetUserAgent()` methods for the *roHtmlWidget* object

### Improvements

- New *roHtmlWidget.Enable2DCanvasAcceleration()* method allows you to improve 2D canvas animation, but there is a risk of GPU OOM errors if there are too many elements on the screen. This feature can be enabled in HTML by calling `canvasElement.getContext("2d", {accelerated2d:true})`.
- GPU rasterization is now enabled by default: You don't need to call `ForceGPURasterization(true)` to enable this feature any longer.
- HTML `<video>` video elements now support `EncryptionKey` and `EncryptionAlgorithm` attributes for decoding encrypted files and streams.
- A JavaScript "error" event is now triggered for an HLS or UDP stream when the URL is incorrect or data cannot be retrieved from the server.
- The *BSCECReceiverEvent* JavaScript object now supports the `getBytes()` method, which allows you to retrieve CEC data as an `ArrayBuffer`.

- New *roStorageHotplug.GetStorageStatus()* method allows you to determine the current status of a storage device, even if it is not mounted/formatted yet.
- The *roStreamQueue* object now supports the `SetPreferredVideo()` and `SetPreferredAudio()` methods.
- (4Kx42) Players will now output HDR video if you hot plug an HDR-compatible display while playing HDR content.
- Holding the SVC button while the player boots up will now always prevent the autorun from executing.
- Pressing the Reset button now results in a reboot even if the GPIO control port has not been opened via *roControlPort*.
- The `SetPreferredVideo()` and `SetPreferredAudio()` methods on the *roVideoPlayer* object now support streaming video.
- The *roHtmlWidget* object now supports the following audio-configuration methods:
  - `SetPcmAudioOutputs(a As Object) As Boolean`
  - `SetMultichannelAudioOutputs(a As Object) As Boolean`
  - `SetCompressedAudioOutputs(a As Object) As Boolean`
- HTML pages now support video playback from the Logitech ZC3XX USB camera.
- A player will now automatically substitute its physical address into the message payload of the following CEC messages: `ActiveSource`, `InactiveSource`, `SetStreamPath`, `SystemAudioModeRequest`, `RequestCurrentLatency`, `InactiveSource`, `SystemAudioModeRequest`.

- The *roCecInterface* object now supports the `GetPhysicalAddress()` method.
- A player will now send a CEC user message even if it hasn't yet negotiated a logical address.

### Bug Fixes

- The *roHtmlWidget.SetLocalStorageQuota()* method has been fixed.
- HDMI input now works on HTML pages when HWZ mode is disabled.
- The player no longer reboots if you use HTML to play a streaming URL that contains commas.
- Attempting to display an HTML page that uses the Web Audio API, which BrightSign players do not currently support, no longer causes the player to crash.
- Video playback will no longer stop if `load()` is called on an HTML video tag at the same time playback of the previous video stops.
- HTML `<select>` elements now work correctly with up/down keyboard presses.
- The Enter keypress event for HTML forms has been fixed.
- The player will no longer crash if you destroy an *roHtmlWidget* while interacting with an HTML pop-up window.
- The player will no longer crash if you assign, then remove, mosaic mode from a video decoder and attempt to play video.
- The `GetOpacity()` and `SetOpacity()` methods on the *roVideoPlayer* object have been fixed.
- The player will no longer crash if you attempt to quit a non-TS stream containing multiple audio channels.

- Using `SetPlaybackSpeed(0)` to pause video playback for more than 150 seconds no longer generates an erroneous media end event.
- Players will no longer crash when attempting to play HLS streams consisting of raw audio segments only.
- Passing a 0,0 rectangle to `roTextWidget.SetSafeTextRegion()` no longer causes the player to crash.
- The `roAssetPool.ProtectAssets()` method no longer blocks for a long period of time when there are multiple asset-pool threads operating simultaneously.
- Reusing an SQL statement with `roSqlite` no longer causes the player to crash.