

Chyron Advanced Keyboard V2

Requires Prime 3.5 or greater.

September 2019

Document version 1.0



Description

The **Chyron Advanced keyboard** is a physical device that communicates with the outside world over USB. In fact, the keyboard consists of several USB devices:

- A large LCD
- An additional keypad
- 4 banks of 21 smaller LCD keys for a total of 84 assignable keys
- A standard QWERTY keyboard

- A power cable
- A USB cable
- A USB port

Software components required

Requires Prime 3.5 or greater.

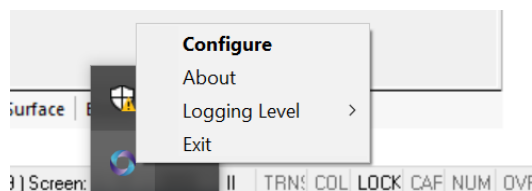
Requires “Advanced Keyboard Manager.exe” to be running in the system tray. Version 2.0.3 or greater.

Advanced Keyboard Manager

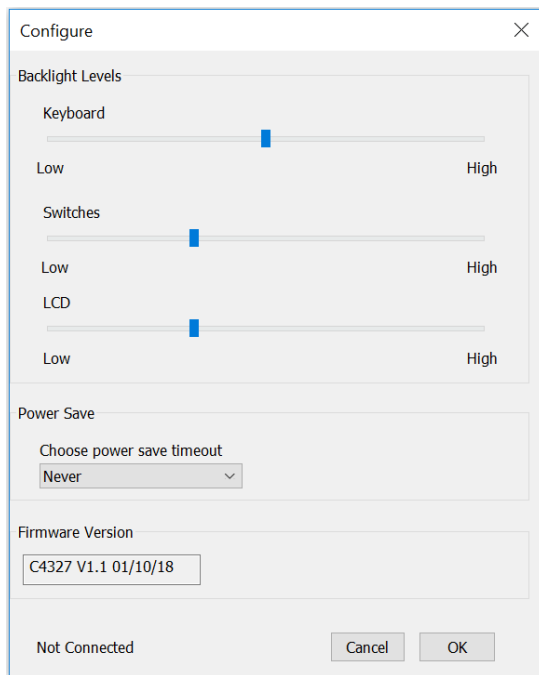
The Advanced Keyboard Manager should be running in the system tray.

Right click on it to access the available menus.

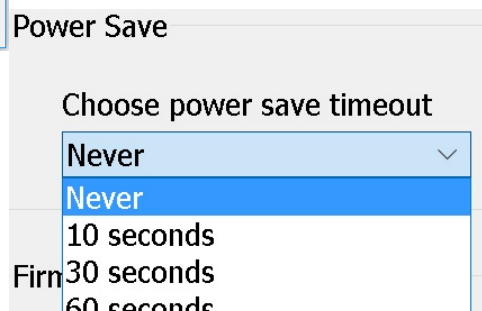
Configure



Back lighting & Power Save



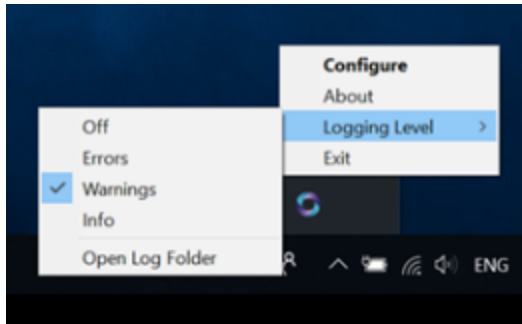
These controls will adjust the global keyboard settings.



Power Save Time outs

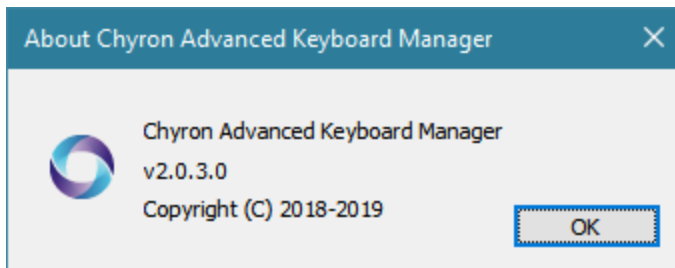
Logging Level

Set logging to “Off” under normal operation. Chyron support may ask to set it to a different logging level as a diagnostic tool.



About

Shows the current version of the Keyboard Manager.



Flex Keys & Banks

There are 4 banks of 21 LCD Flex keys for a total of 84 assignable Flex keys..

The topmost and leftmost keys can be individually designed. Key Press (Up and Down) commands can be assigned to these keys using the Advanced Keyboard Configuration Dialog.



Gray Keys

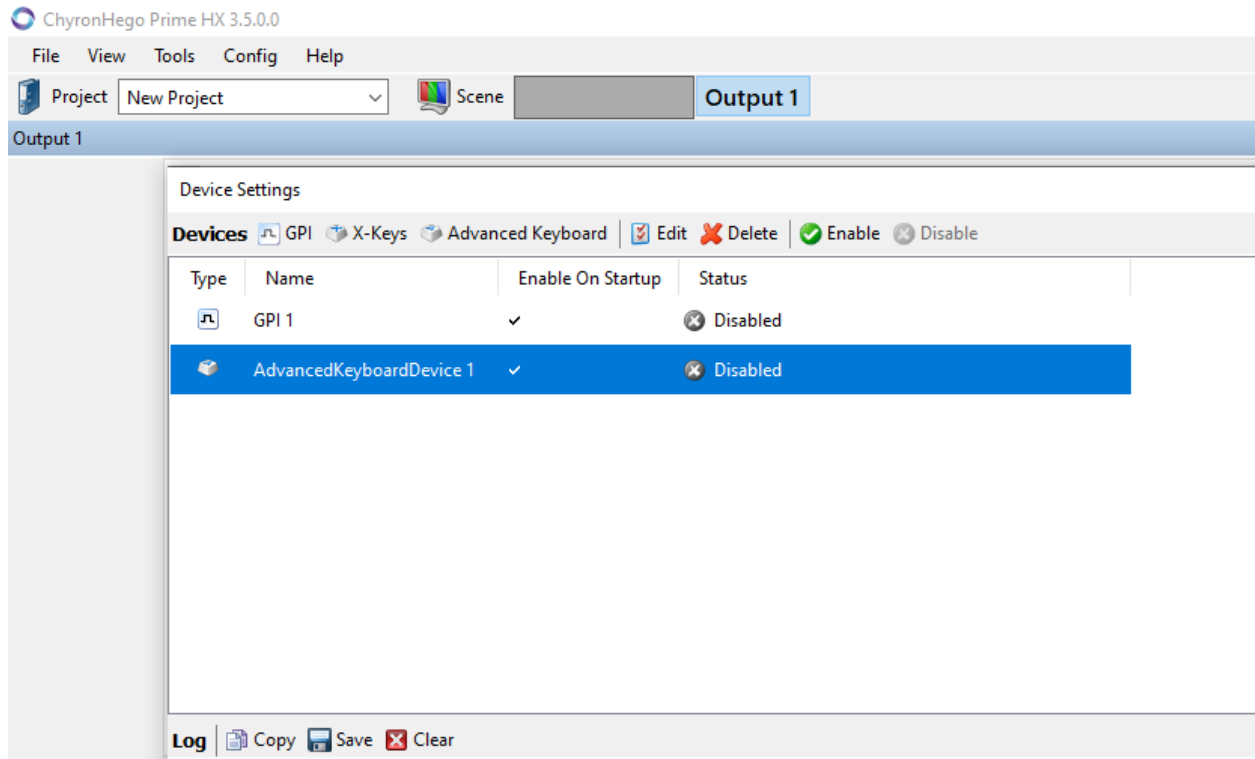
The gray keys are hard-coded for standard graphics playback operation.

Main LCD Display

Not implemented in V2 of the Keyboard. The resolution is 128 x 64.

Add Keyboard Device to Prime Application

- Go to Config Devices.
- Click on Advanced Keyboard to Add Advanced Keyboard Device
- Prime need to run as **Administrator** to run and use Advanced Keyboard Device
-

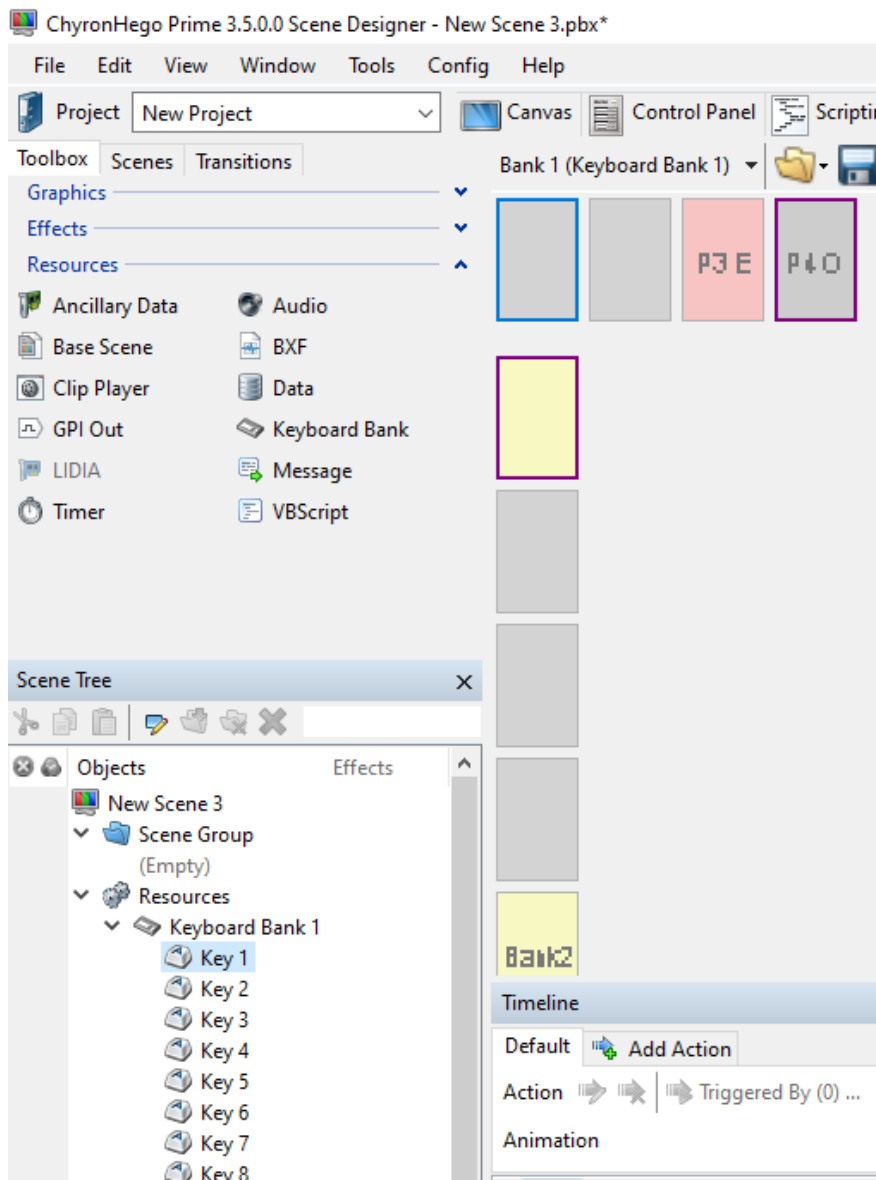


Device only needs to be added for Playout, designing of flex keys and assigning events can be done through editor without the need to add keyboard device.

Editor Flex Keys Design & Configuration

Configure Flex Keys look and Keypress events, a Keyboard Bank resource is added to the Scene or Project file.

- The Keyboard Bank resource is added under a Resource section of Scene Tree.
- The view bank of the bank is shown in separate dialog.
- User can select keys to configure either by clicking Keys in Scene Tree or on Keyboard Bank Dialog



**Keyboard Bank resource is available under Resource section of Scene Editor's Toolbox.*

Each flex key can be custom-designed with text, color and/or an image.

Flex keys have two levels of hierarchy

1. Project
2. Scene

See Key Scope below

The selected Key can be configured using the properties window

The screenshot shows a software interface for configuring a Flex Key. At the top, there are two tabs: 'Properties' (selected) and 'Events'. Below the tabs, the key name 'Key 1' is displayed in a text box, accompanied by a checkmark icon and a small device icon. The configuration is organized into several sections:

- Behavior:** Contains three settings: 'Enabled' (checked), 'Broadcast Key Mode' (set to 'Single Listener'), and 'Allow Override' (set to 'Allow').
- Appearance:** Contains five settings: 'Color' (set to 'None'), 'Font' (set to 'Arial, 6.00'), 'Alignment' (with three icons for left, center, and right alignment), 'Text' (a large empty text area), 'Image' (an empty image selection box), and 'Draw Mode' (set to 'Image After Text').
- Events:** Contains two settings: 'Key Down' and 'Key Up', each with an empty dropdown menu.

Behavior

Enabled

Enables the key and allows the Project or a Scene to listen for key press events. *Appearance and Events can only be configured if the key is enabled.*

Broadcast Key Press

- **Single Listener:** Key Up and Down events are only broadcast to one listener (Single Scene or Project).
- **Multiple Listener:** Key Up and Down events are broadcast to all available listeners (All Scenes on Output and the Project). The “Allow Override” option is disabled in this mode and set to deny. *See Multiple Listener Mode in detail below.*

Only available in Project Editor configuration.

Allow Override

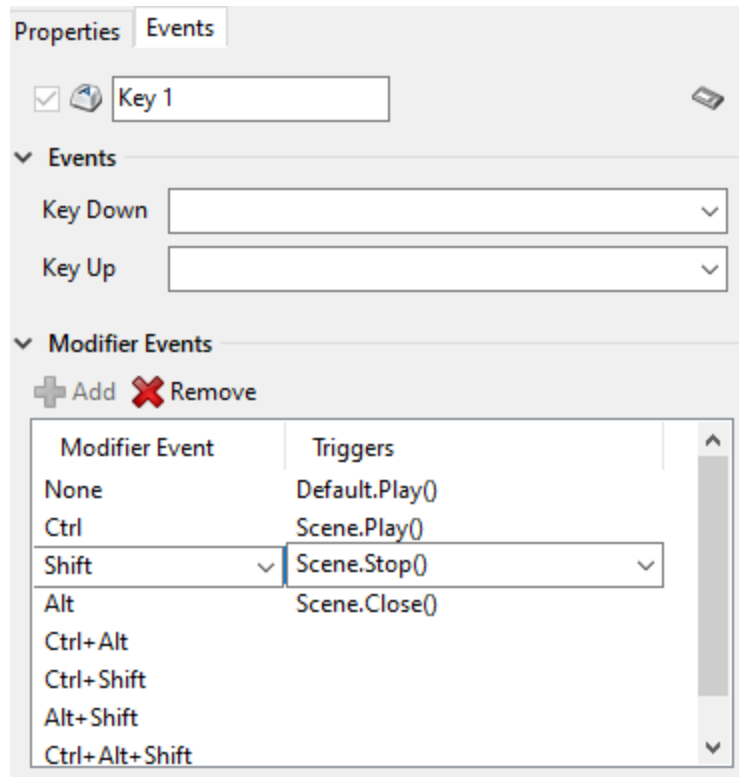
- **Allow:** Allows the key’s appearance and commands to be configured by a scene (depending upon which scene is selected).
- **Deny:** This key’s appearance and commands cannot be overridden at the scene level. This key becomes *exclusive* to Project.. Exception: See Broadcast Press Multiple Listener. *See Allow Override: Deny in detail below.*

Only available in Project Editor configuration.

Appearance

- **Color:** Background Color for the key. Choices are Red, Green, Yellow and Off.
- **Font:** The font facename, style and size for the text on the key.
- **Alignment:** Justification of the text on the key. Choices are Left, Center or Right
- **Text:** Text to be shown on the key.
- **Image:** Filename of an image to appear on the key. Image is black and white with a maximum resolution of 24x36 pixels. Supported image formats are PNG or BMP.
- **Draw Mode:** Position of the image with respect to the text. Choices are Image After Text or Image Before Text.

Events



Actions can be triggered when key events occur (keys are pressed and/or released)

Assignable in both Project and Scene levels.

Executes a specific function or set of functions.

Ex: "Clear", "Activate Action", "Bank 2: Activate"

Key Down: assign the Trigger Action(s) to execute when this key is pressed.

Key Up: assign the Trigger Action(s) to execute when this key is released.

Modifier Events

In addition to Key Down and Key Up , KeyDown events with different Modifier Keys (Ctrl,Alt,Shift). Assign Trigger to different Modifier Keys combination.

*KeyDown Event occurs, if user presses modifier keys with Key Press, but didn't add Modifier Event for that key combination

Keyboard Bank Dialog

Representation of Bank Layout. Also allow user to Select Keys



Bank DropDown

- Shows to which bank of keyboard, bank resource is assigned.
- Clicking on DropDown items allow to move the bank resource to available(empty) bank or swap bank resources (if another bank resource is already assigned to clicked bank)
Actions can be triggered when key events occur (keys are pressed and/or released)

Open Bank Xml

- **Load:** Load Keyboard Bank xml and override all configured keys. (Appearance only)
- **Append:** Load Keyboard Bank xml and only override the keys that are not configured.(Appearance only)

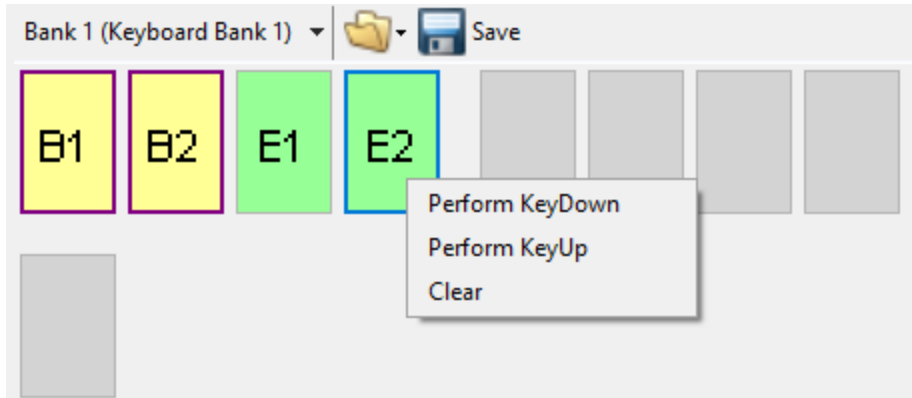
Save Bank Xml

Save the Bank Resource as Xml to loaded into different keyboard bank. (Only Appearance is saved , not the events)

Live Preview

Show live preview of the currently selected bank in the Editor on the Physical Keyboard

Right Click Key Context Menu



Perform KeyDown: Executes Trigger Action that should trigger when the key is pressed.

Perform KeyUp : Executes Trigger Action that should trigger when the key is released.

Clear: Resets the Key. This will disable the key, restore all **Appearance** settings to their default values.

Broadcast Key Press: Multiple Listener

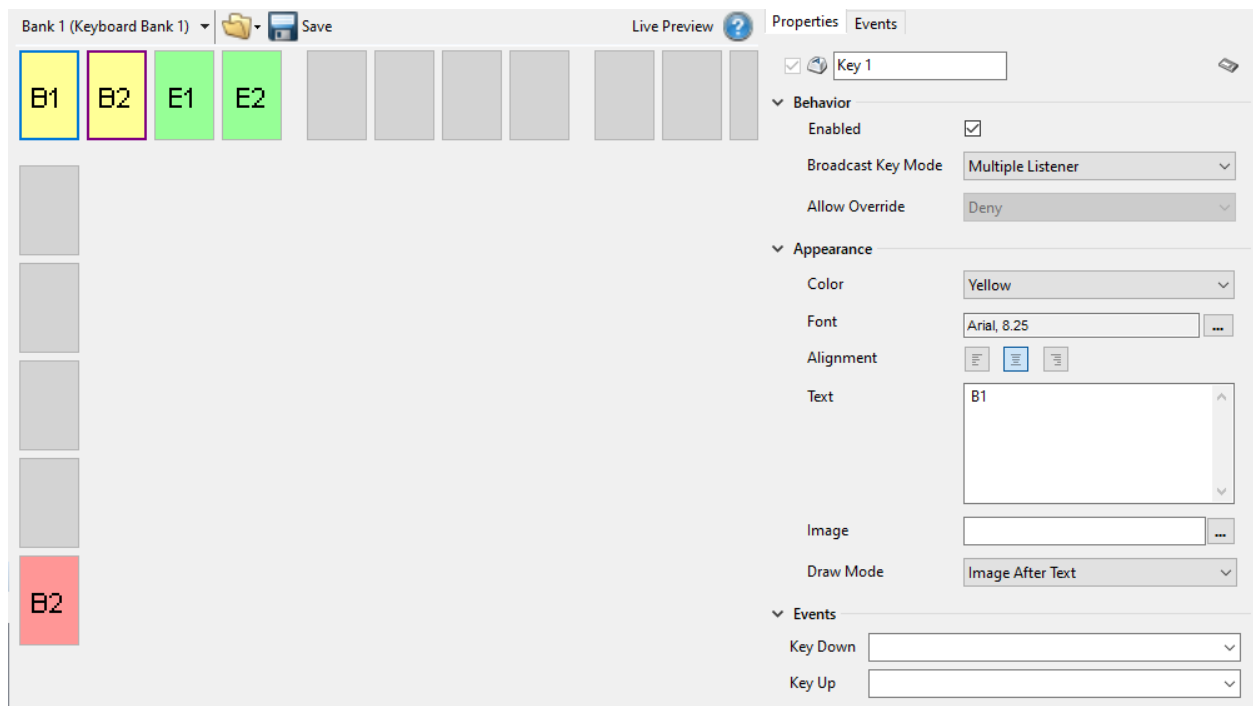
In Multiple Listener Mode:

- Key Up and Down events are broadcast to all available listeners. All the Scenes that are on output and the Project can react to the events.
- The key will be highlighted with a purple border around it.
- The Allow Override option is disabled and set to deny.
- Key Appearance can only be set at the Project Level. At the Scene level, the key appearance controls are disabled, the appearance settings as set at the Project level are shown on the key, and a broadcast key indicator is also shown.
- Any scene can react to key press events. Once the key is enabled at the Scene level, Events can be added in Events Section

In the screenshots below. Key 1 (B1) and Key 2 (B2) are marked as Multiple Listeners

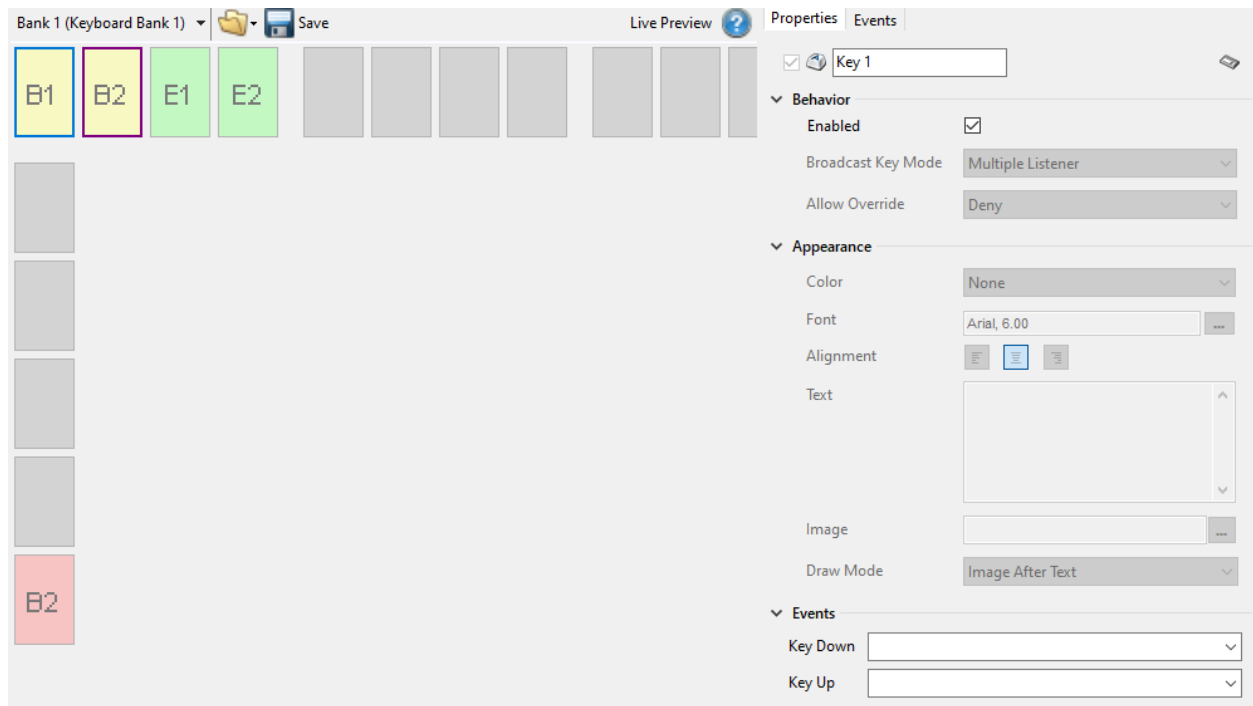
Project Level

- Purple Border around B1 and B2
- Allow Override is disabled
- Events can be added to react to key press events.



Scene Level

- Scene keys can hook up to a key if the *Broadcast Key Press mode* is set to *Multiple Listener* by enabling the key and adding Events to react to key press events
- Key Appearance controls are disabled as scenes cannot override the appearance.
- If a scene already has commands assigned to a specific key and subsequently you change the *Broadcast Key Press mode* to Multiple Listener at the Project Level, the scene commands will automatically be hooked up to it.
- The appearance of the key as set at the project level is shown in the User Interface with a purple border around it.



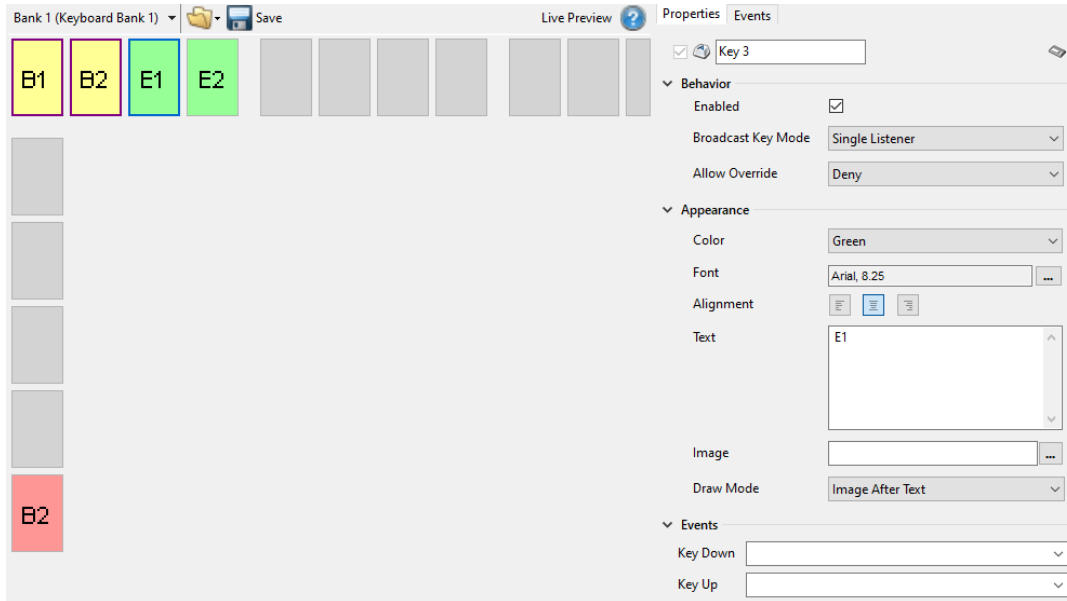
Allow Override: Deny

- A key becomes exclusive to the Project if **Allow Override** is set to **Deny** while **Broadcast Key Press Mode** is set to **Single Listener**.
- Appearance and Events can only be set at the project level. The Scene's configuration settings are disabled.

In the screenshots below, Key 3 (E1) and Key 4 (E2) are marked with Allow Override Deny option.

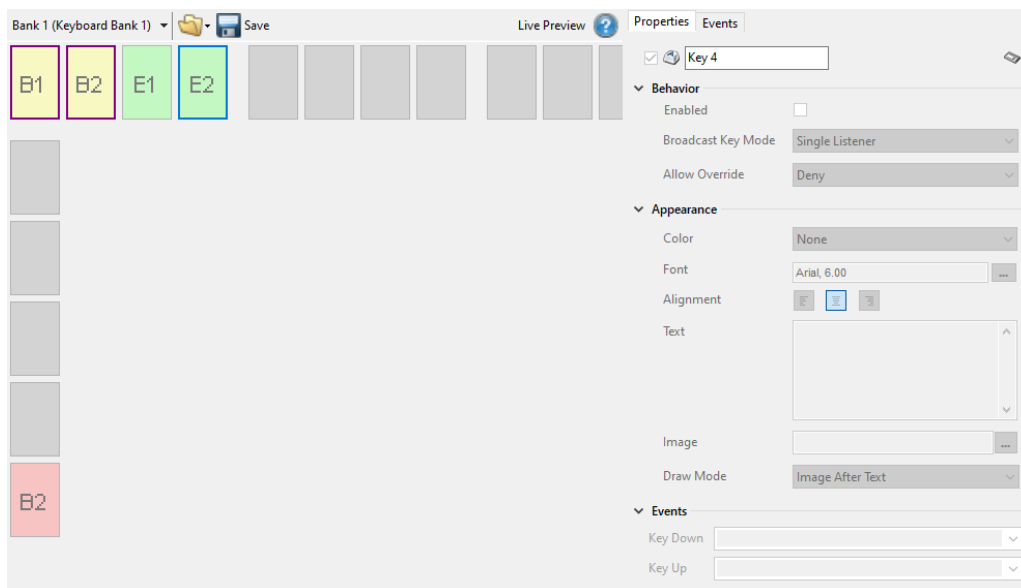
Project Level

- Both Appearance and Events can be configured
- Broadcast Key Mode is set to Single Listener



Scene Level

- All the Key Properties are disabled for that key
- If the Scene had a set appearance and events were assigned to a specific key and subsequently Allow Override is changed to Deny at the ProjectLevel, the scene key configuration will be disabled.
- A preview of the appearance as set at the Project level is shown on the key..

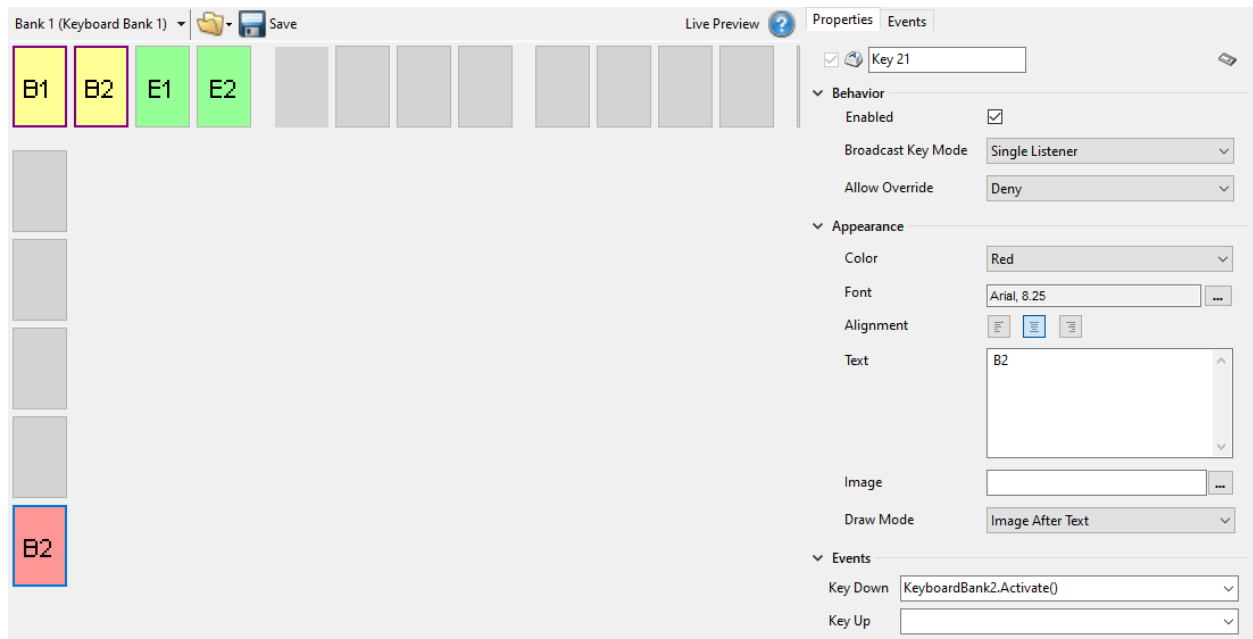


Switching Flex Key Banks

There are four banks of 21 user assignable flex keys. Switching banks can be achieved by assigning Keyboard Bank to Activate on KeyDown or KeyUp. Only the banks that are assigned Keyboard Bank Resource's can be activated

In the screenshot below, Bank 1 with “Keyboard Bank 1” Resource's Key 21(Red B2) is assigned to activate KeyboardBank2 Resource (assigned to Bank2) on Key Down.

Pressing the Bank 1's Key 21 will activate Keyboard Bank2 Resource and switch to Bank2



Flex Key Behaviors

Scenes have first priority to respond to a keypress. If a key is assigned in multiple scenes, the output scene that has focus will have priority. If the key is not assigned in any scene currently on output, then the key will revert to what was configured at the Project level.

Examples:

Example 1:

Project Key 1

- **Appearance:** “Clear” Text
- **Broadcast Key Mode:** Single Listener
- **Allow Override:** Allow
- **Key Down Event:** Scene:Clear

Scene 100 Key 1

- **Appearance:** “Bug On” Text
- **Key Down Event Command:** Activate Action“Bug On”

Scene 200 Key 1:

- **Appearance:** “Clock On” Text
- **Key Down Event Command:** Activate Action“Clock On”

Scene 100 is on output

When Scene 100 is opened and played to air on Program, Key 1 will display “Bug On”. The Appearance of the key is under control of Scene 100 as long as it remains on output.

Pressing Key 1 will activate the action“Bug On” as long as scene 100 is on air.

Once Scene 100 is cleared from output, Key 1 reverts back to the Appearance set at the Project level (“Clear”).

Scenes 100 and 200 on output

With Scene 100 on the output of Program, Scene 200 is opened and played to Program. In this scenario. the keyboard keys are in context to the scene that has focus. If Scene 100 has focus, Key 1 will activate “Bug On” and Display “Bug On”. If Scene 2 has focus, it will activate “Clock On” and display “Clock On”

When both Scene 100 and Scene 200 are cleared from program, key 1 will revert back to the appearance at the project level (“Clear”).

Example 2:

Project Key 2

- **Appearance:** “Play Actions” Text
- **Broadcast Key Mode:** Multiple Listener

Scene 100 Key 2

- **Key Down Event Command:** Activate Action“Bug On”

Scene 200 Key 2:

- **Key Down Event Command:** Activate Action “Clock On”

The Appearance of this key cannot be changed at the scene level and will always say “Play Actions”. However, any scene can react to this key by adding events at the scene level. When the key is pressed, both the “Bug On” action of Scene 1 and “Clock On” action of Scene 2 will be activated.