Chyron Advanced Keyboard V2

Requires LyricX 4.1 or greater.

June 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 LyricX 4.1 or greater.

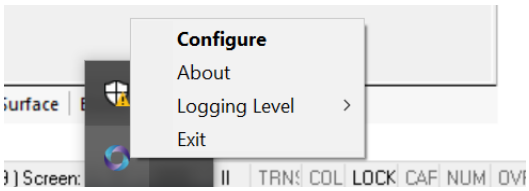
Requires “Advanced Keyboard Manager.exe” to be running in the system tray. Version 2.0.3 or greater.

Advanced Keyboard Manager

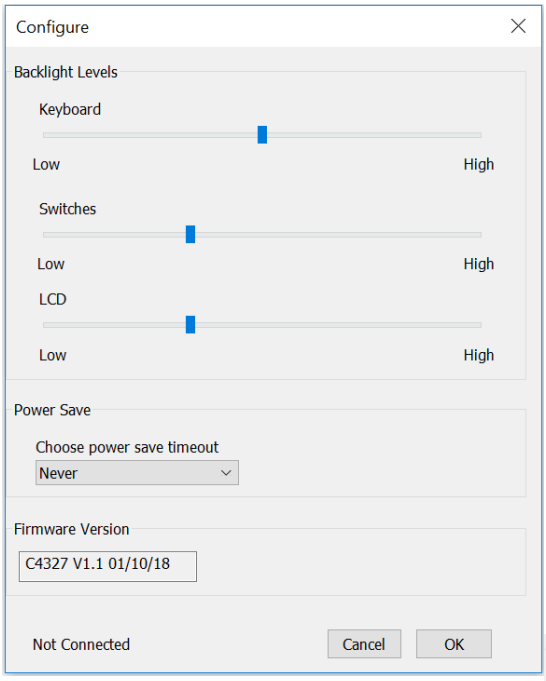
The Advanced Keyboard Manager should be running in the system tray.

Right click on it to access the available menus.

Configure

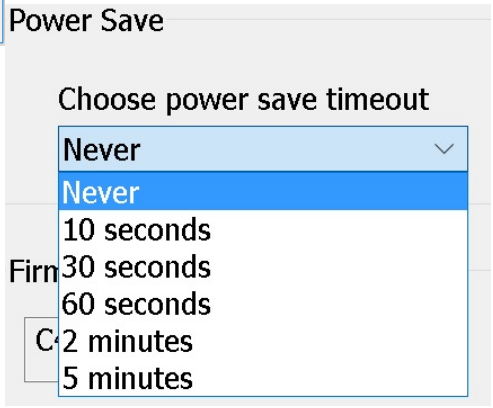


Back lighting & Power Save



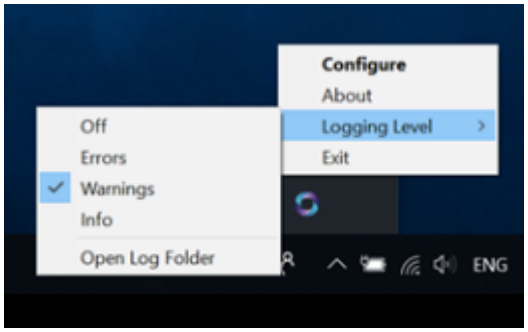
These controls will adjust the global keyboard settings.

Power Save Time outs



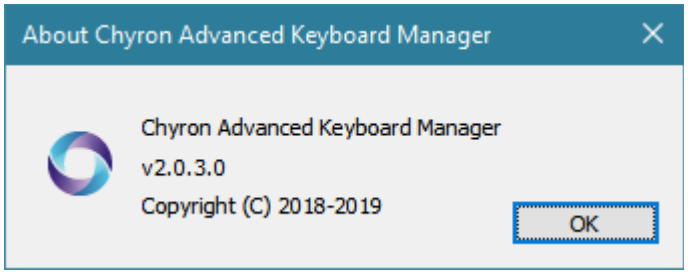
Logging Level

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

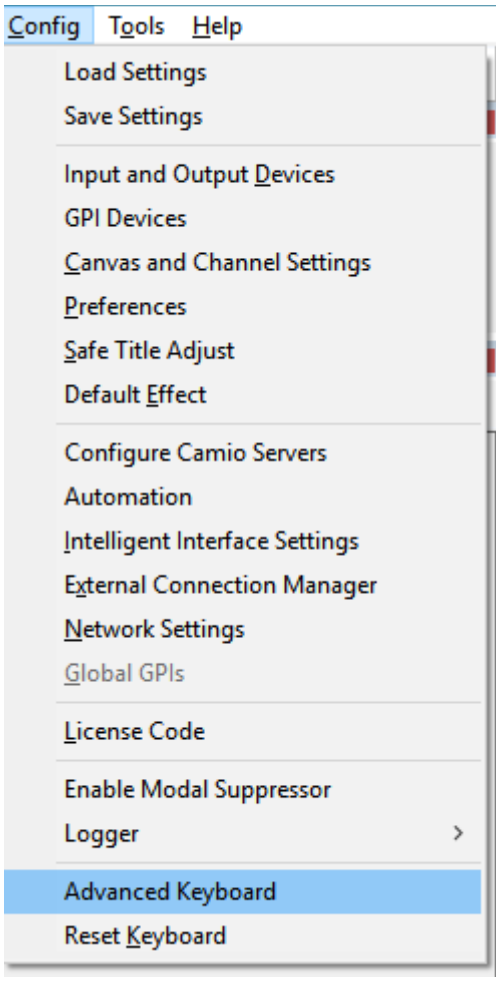
The gray keys are hard-coded for standard graphics playback operation. Works identical to the Advanced Keyboard V1.

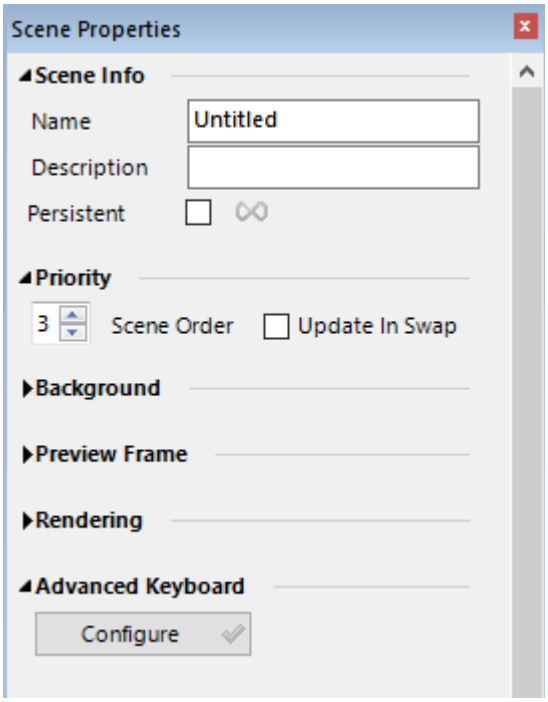
Main LCD Display

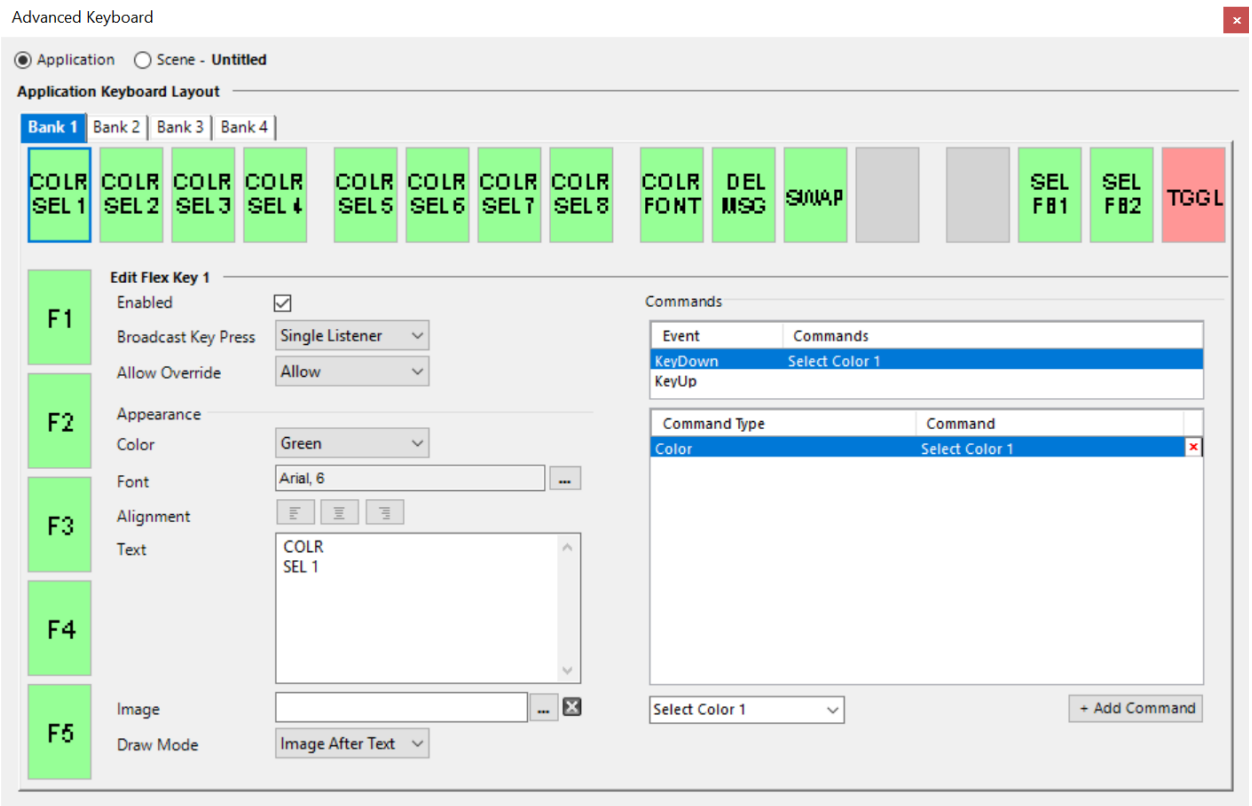
Not implemented in V2 of the Keyboard. The resolution is 128 x 64.

Flex Keys Design & Configuration

This Advanced Keyboard Configuration Dialog is accessible by selecting the Advanced Keyboard item on the Config menu OR by pressing the Advanced Keyboard button on the Scene Properties pane.







a. Advanced Keyboard Configuration Dialog

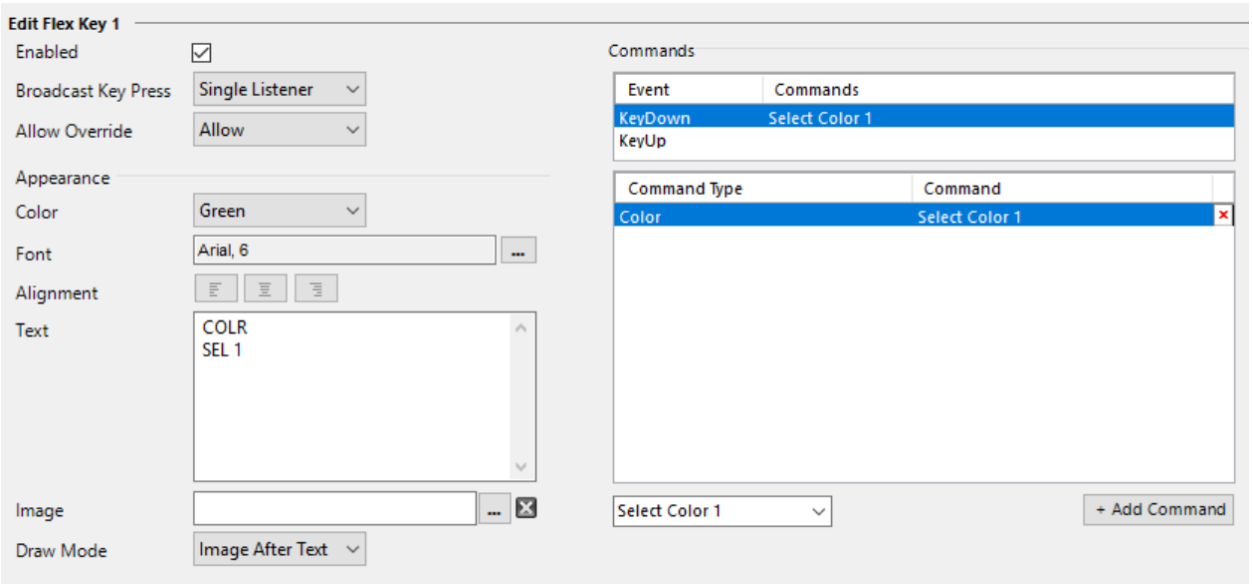
Each flex key can be custom-designed with text, color and/or an image.

Flex keys have two levels of hierarchy

1. Application
2. Scene

See Key Scope below

The selected Key can configured using the KeyEditor Control.



Enabled

Enables the key and allows the Application or a Scene to listen for key press events.
Appearance and Commands 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 Application).
- **Multiple Listener:** Key Up and Down events are broadcast to all available listeners (All Scenes on Output and the Application). The “Allow Override” option is disabled in this mode and set to deny. *See Multiple Listener Mode in detail below.*

Only available in Application configuration.

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 Application. Exception: See Broadcast Press Multiple Listener. *See Allow Override: Deny in detail below.*

Only available in Application 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.

Commands

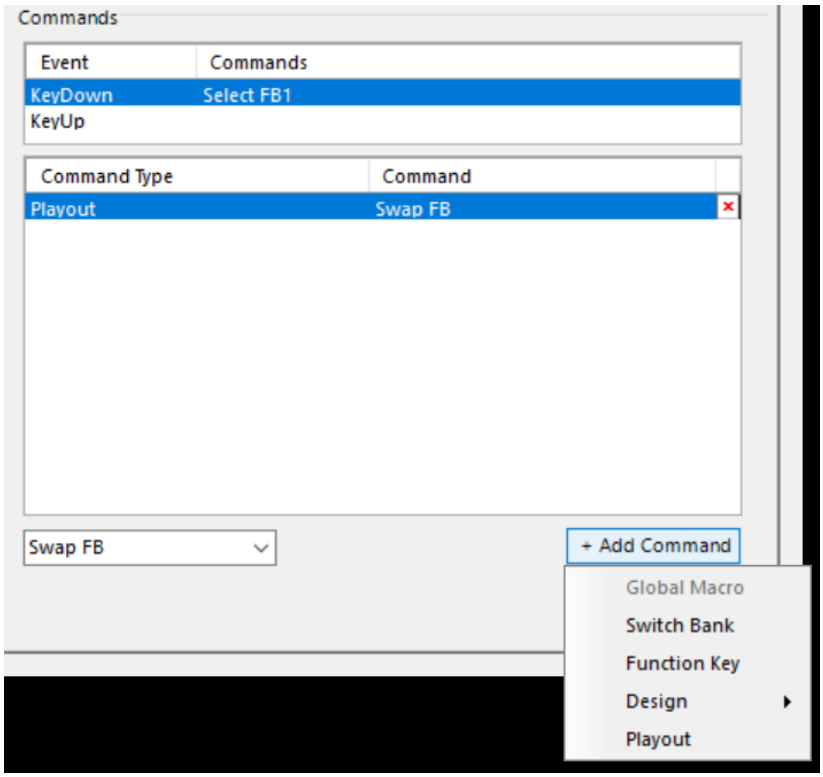
Commands can be triggered when key events occur (keys are pressed and/or released)
Assignable in both Application and Scene levels.
Executes a specific function or set of functions.
Ex: “Clear FB1”, “Activate Transition 1”, “Switch Bank 2”

Key Down: assign the Command(s) to execute when this key is pressed.
Key Up: assign the Command(s) to execute when this key is released.

Add Commands

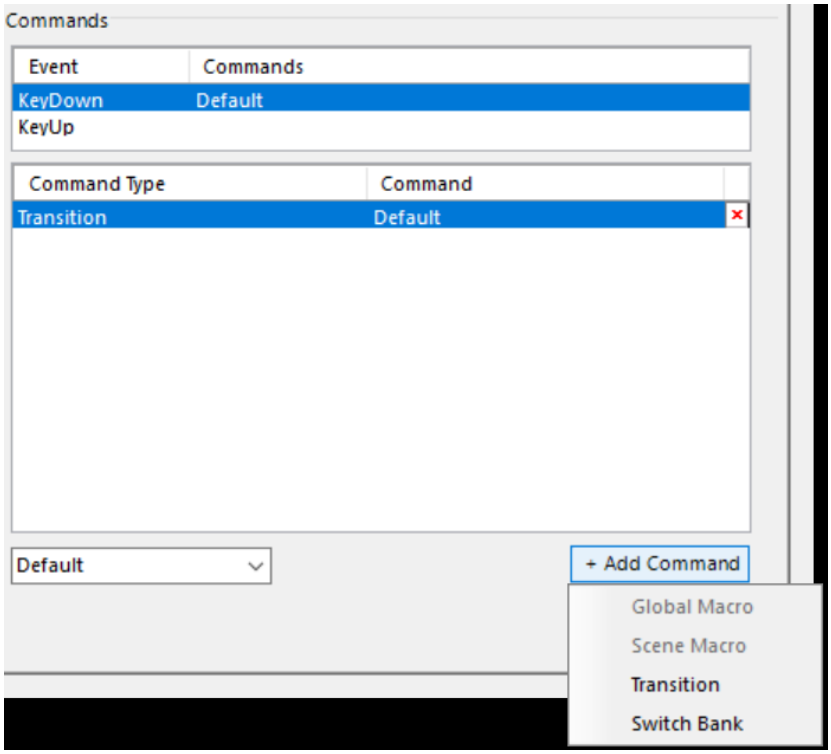
If the Key is enabled, you can add one or more Commands to the event by pressing the “Add Command” button. The list of available commands is different between the Application and Scene levels.

Application Commands

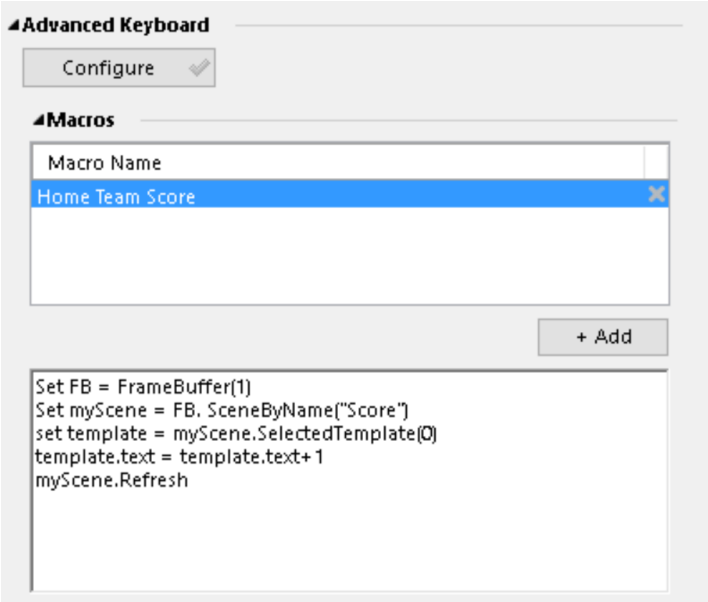


The Application Level configuration is stored in the file KeyboardSettingsV1.xml in C:\ChyronHego\Lyric\Settings.

Scene Commands



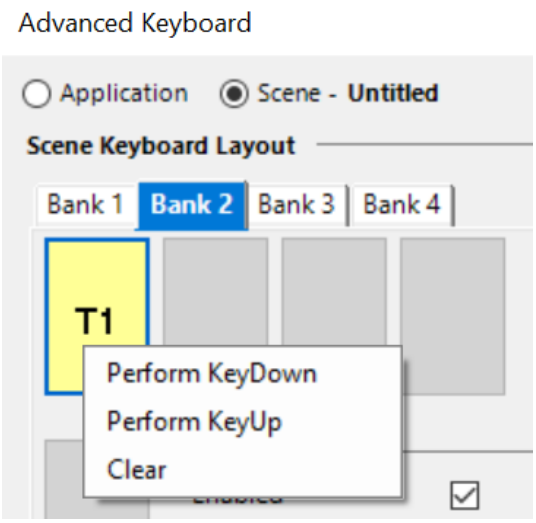
- *The list of available commands will be expanded in future releases*
- *Global Macros and Scene Macros will be enabled if any exist.*
- *Scene Macros can be added for the current scene from the Advanced Keyboard section of the Scene Properties Pane.*



- *The scene-level configuration and scene macros are embedded in the Lyric message when it is saved to disk.*

Key Control Context Menu

To test the Commands assigned to a key, right-click the key in the UI and select “Perform KeyUp” or “Perform KeyDown”



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

Perform KeyUp : Executes commands 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 and clear all commands assigned to key events.

Broadcast Key Press: Multiple Listener

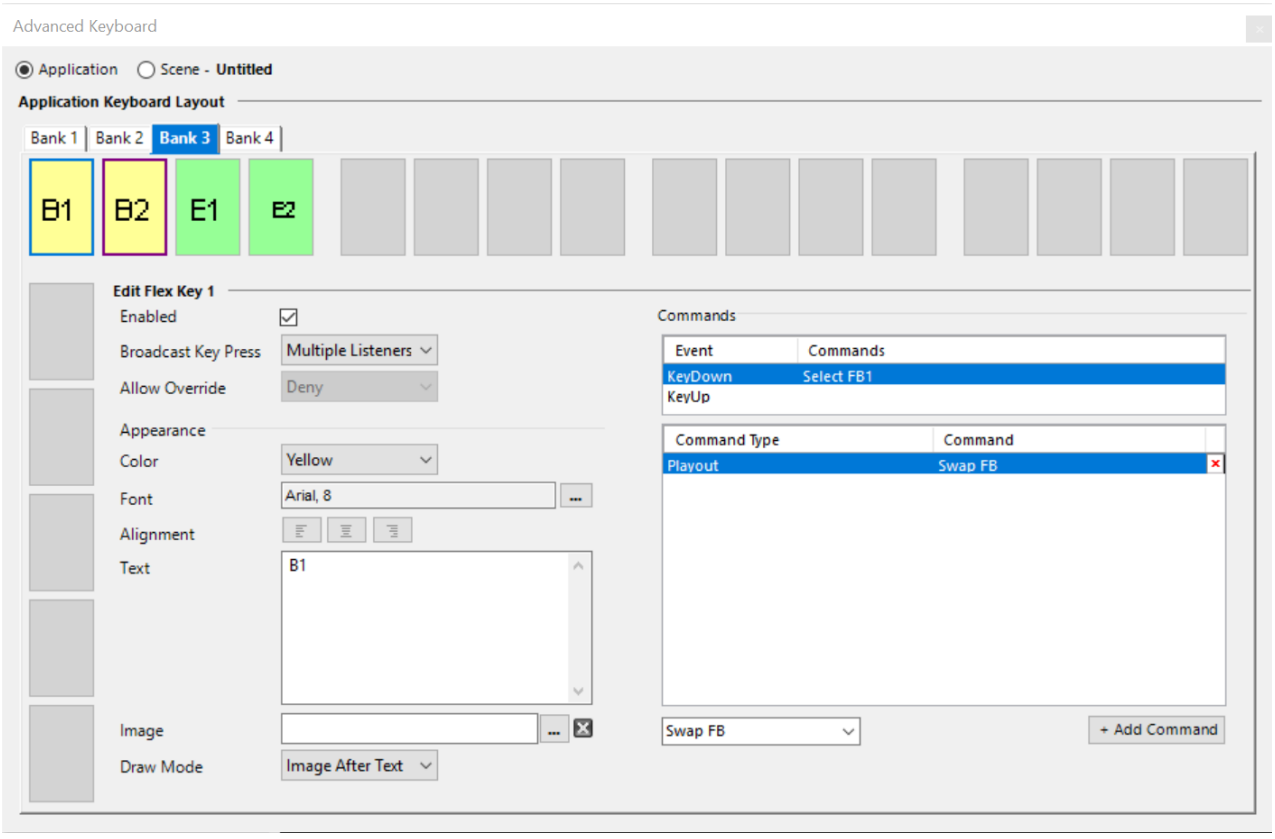
In Multiple Listener Mode:

- Key Up and Down events are broadcast to all available listeners. All the Scenes that are on output and the Application 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 Application Level. At the Scene level, the key appearance controls are disabled, the appearance settings as set at the Application 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, commands can be added in commands section.

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

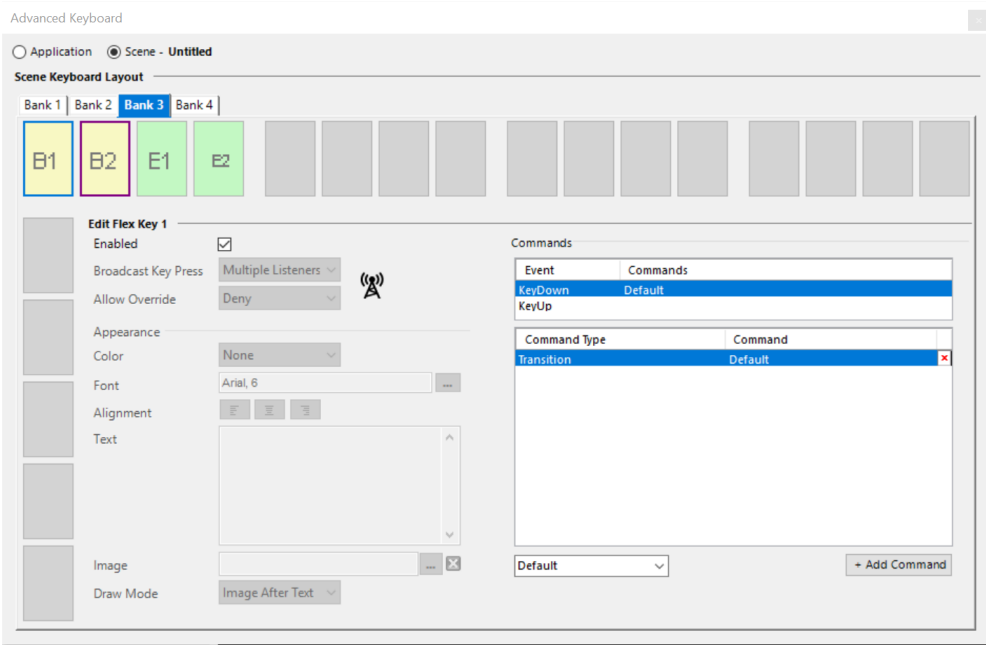
Application Level

- Purple Border around B1 and B2
- Allow Override is disabled
- Commands 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 commands 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 Application Level, the scene commands will automatically be hooked up to it**.**
- The appearance of the key as set at the application level is shown in the User Interface with a purple border around it, and an indicator is shown in the key editor.



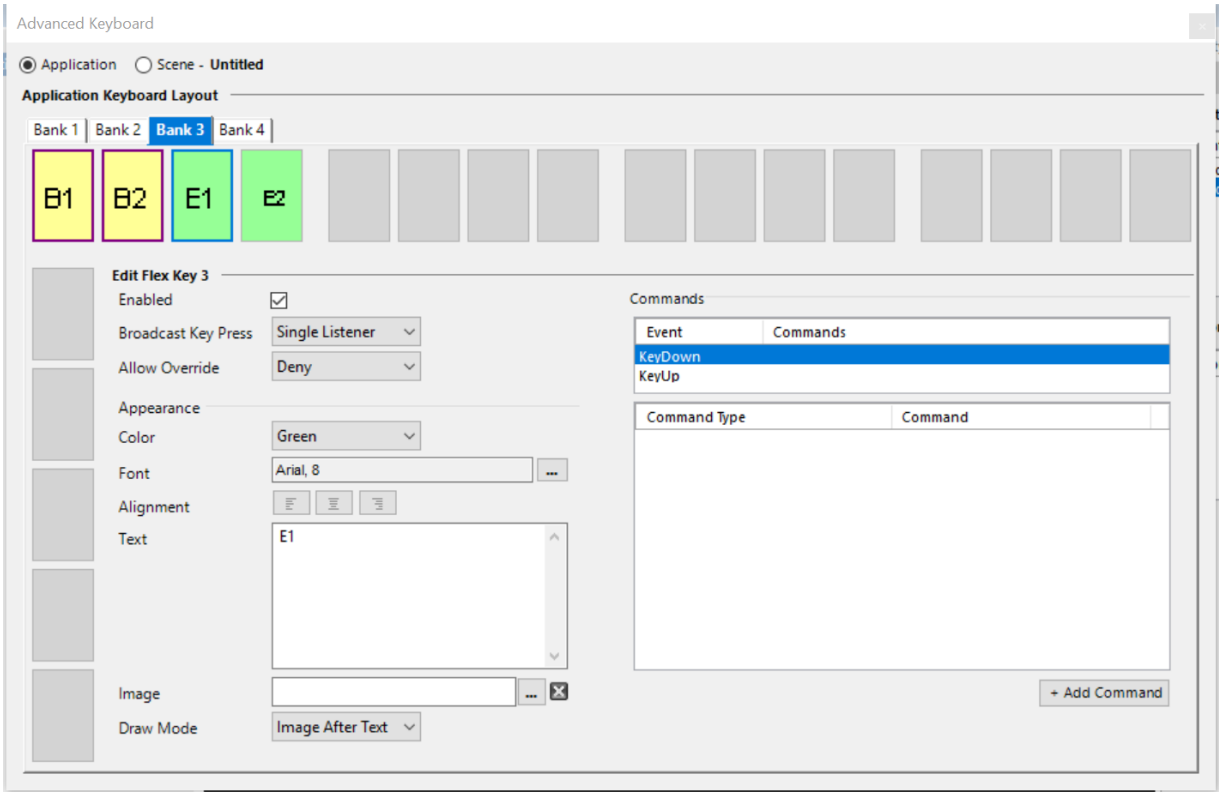
Allow Override: Deny

- A key becomes exclusive to the Application if **Allow Override** is set to **Deny** while **Broadcast Key Press Mode** is set to **Single Listener**.
- Appearance and Commands can only be set at the application 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.

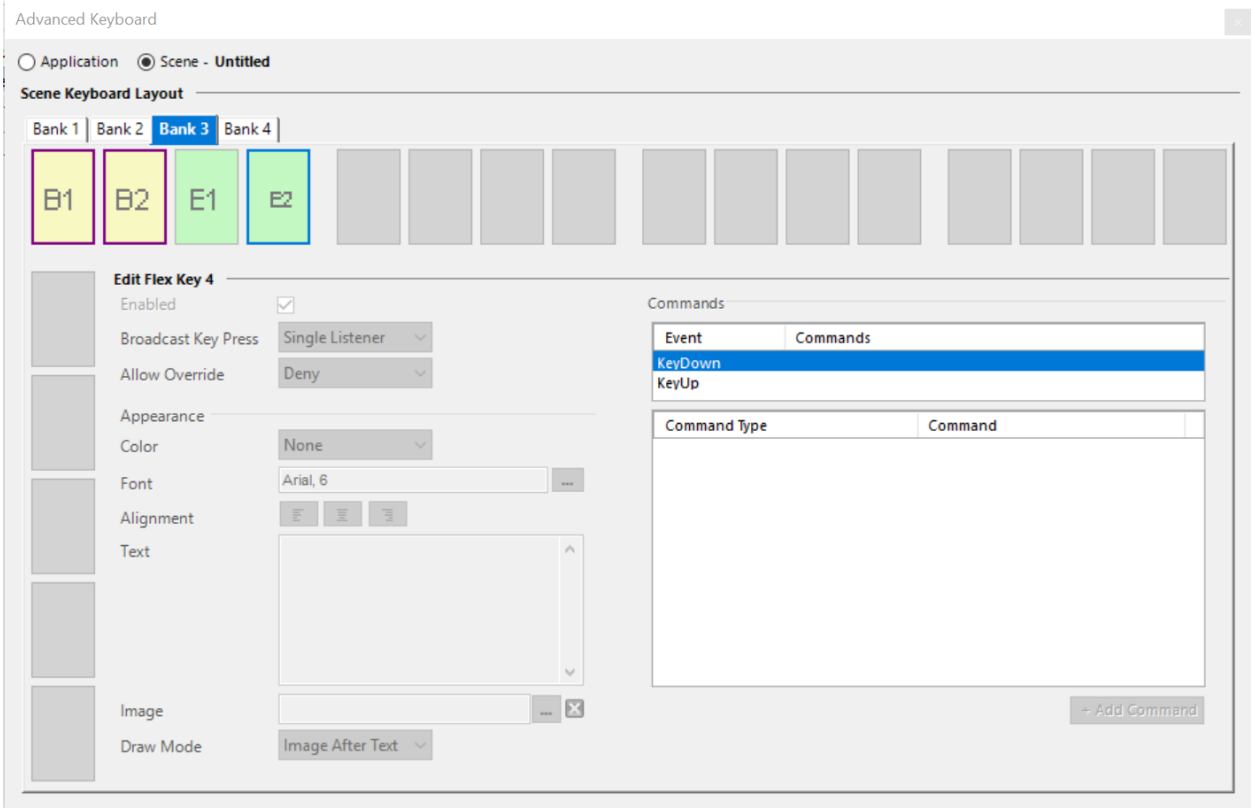
Application Level

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



Scene Level

- All the Key Editor settings are disabled for that key
- If the Scene had a set appearance and commands were assigned to a specific key and subsequently Allow Override is changed to Deny at the Application Level, the scene key configuration will be disabled.
- A preview of the appearance as set at the Application level is shown in the User Interface.



Flex Key Banks

There are four banks of 21 user assignable flex keys. Switching banks can be achieved by adding “Switch Bank” commands.

To have a single key cycle the banks, use an “Application” key set to “Command”.

1. Select Bank 1. Title the key “Bank 1”.
2. Add an “Command” -> “Switch Bank” and set the “Action” to “Switch Bank 2”.
3. Select Bank 2. Title the key “Bank 2”.
4. Add an “Command” -> “Switch Bank” and set the “Action” to “Switch Bank 3”.
5. Select Bank 3. Title the key “Bank 3”
6. Add an “Command” -> “Switch Bank” and set the “Action” to “Switch Bank 4”.
7. Select Bank 4. Title the key “Bank 4”
8. Add an “Command” -> “Switch Bank” and set the “Action” to “Switch Bank 1”.

Flex Key Commands

Application Level

Application level commands are commands that would be considered “Global” commands and not commands specific to any given scene. *Ex: Clear FB1, Clear All Frame Buffers*

Scene Level commands

Global Macro: List of all macros in the Macro Pane

Scene Macro: List of all macros for the scene in the Advanced Keyboard Section on Scene Pane

Transition: List of all the transitions in the scene

Switch Bank: Allows switching between the 4 banks

- Switch Bank 1
- Switch Bank 2
- Switch Bank 3
- Switch Bank 4

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 Application level.

Examples:

Example 1:

Application Key 1

- **Appearance:** “Clear FB1” Text
- **Broadcast Key Mode:** Single Listener
- **Allow Override:** Allow
- **Key Down Event Command:** Clear FB1

Scene 100 Key 1

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

Scene 200 Key 1:

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

Scene 100 is on output

When Scene 100 is opened and played to air on FB1, 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 transition“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 Application level (“Clear FB1”).

Scenes 100 and 200 on output

With Scene 100 on the output of FB1, Scene 200 is opened and played to air on FB2. In this scenario. the keyboard keys are in context to the scene that has focus. If FB1 has focus, Key 1 will activate “Bug On” and Display “Bug On”. If FB2 has focus, it will activate “Clock On” and display “Clock On”

When both Scene 100 and Scene 200 are cleared from output, key 1 will revert back to the appearance at the application level (“Clear FB1”).

Example 2:

Application Key 2

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

Scene 100 Key 2

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

Scene 200 Key 2:

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

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