

# ImproTron User Guide for Release v2.0

## Introduction

Welcome to v2.0 of ImproTron, a Windows Desktop application designed to support theaters in presenting ComedySportz ® shows, based on the design of the Janis Software. The motivation for creating this application was to bring the Janis experience to a supported technical platform and introduce ideas that could further assist theaters in elevating their show quality and experience.

## Installation

- Download the latest release from the [ImproTron Github Repository](#).
- Unzip into an appropriate directory such as **C:\Program Files\ImproTron**. However, any directory will do. The application is *main.exe*. Create a shortcut

### Note on Virus Scanners

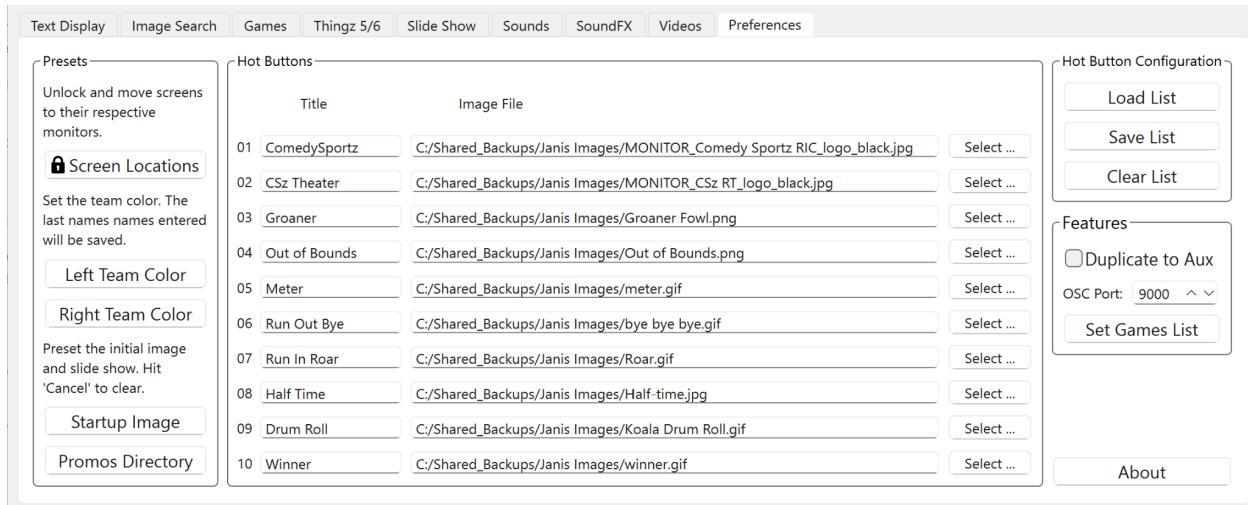
Modern virus scanners often give a false positive and tag the executable as a file containing a virus. Once you allow it to run, there should be no other warnings about viruses. Some scanners may detect it using network ports for connection to the Companion software. Once allowed, there should be no more such messages.

## Locations of Files

ImproTron will look for and store files in default locations within Windows. Some of these locations can be changed, but should ideally be left to their defaults. <USER> refers to the user under whom the application is installed and run.

Configuration and List Files	C:/Users/<USER>/AppData/Local/ImproTron
Images and GIFs	C:/Users/<USER>/Pictures
Sounds	C:/Users/<USER>/Music
Videos	C:/Users/<USER>/Videos

## Preferences Tab - Running ImroTron for the First Time



**ImroTron will first open a Text Window in which error messages will appear. Do not close this window. When reporting errors, please either screenshot this window or copy the text from it. A log file is also created in the configuration directory.**

ImroTron will always start with a delay due to its indexing of pictures and sound files. After that process, the control panel and two monitor windows will appear, showing the words “Main” and “Auxiliary” respectively. Minimize but don’t close the Auxiliary if only one monitor is available.

- Go to the Preferences tab and unlock the screens by pressing on the Screen Locations button, which will show an unlocked icon.
- Move the screens to the monitor they will need to appear on.
- Lock the screens, and the monitor windows will snap to the size of their containing screen. The location will be stored and used when the application is next run.
- Select the left and right team colors. The names can be set on the main control panel. Both colors and names will be stored.
- Set up the ten hot buttons by selecting image files and giving the names of the buttons. Store the buttons in the file “default.hbt”. Load the same file as ImroTron remembers the last file loaded.
- Set the default start-up image to be shown on both monitors.
- Optional: Set the default promos drive where images and movies should be picked up to play at startup and any time the Promos button on the Slide show feature tab is pressed..
- On the text display feature tab, click on the colors button. Drag and drop colors to the

- On the Slide Show Feature tab, set the number of seconds to default to when showing slide shows.
- Exit ImproTron to make sure the configuration file is saved.

## Other Preferences Options

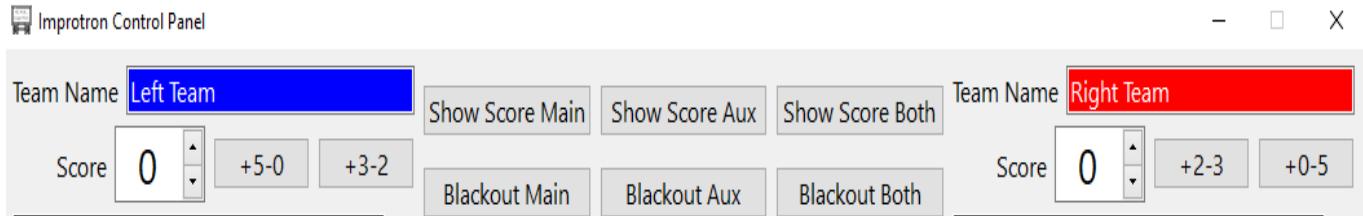
Set Games List allows you to populate the games available in a predefined .CSV file. One is shipped with ImproTron. Use any tool like Google Sheets or Excel to add. If you create an extensive list please send to support to share with the community.

The OSC Port applies to a remote control feature described under Companion integration.

The About button shows the current version but also all stored values which can be useful in support situations.

# Main Control Panel

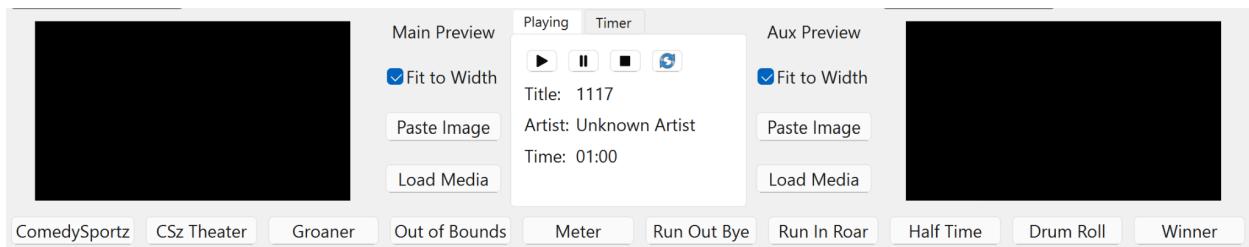
## Scoring Control Section



The Main Control Panel houses the controls for managing the team image display and the timer. Scores can be shown on the Main, Auxiliary, or both monitors. Team names are entered on the main Control Panel and are stored for future sessions. Scores can be changed by entering numbers, incrementing with the spin box controls, or using the Quick Add buttons (+5-0, etc). The Quick Add buttons will add to the scores and immediately show on both monitors for quick scoring updates. For example clicking on +5-0 will add 5 to the Left Blue Team and display.

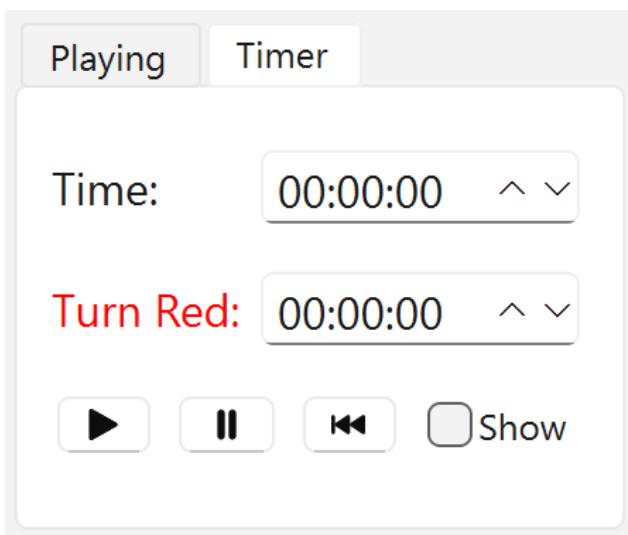
Monitors can be blacked out individually or both at once.

## Monitor Preview Section



Images or GIFs can be quickly loaded in the Control Panel. The location defaults to the same location as the Image Search Library (See Image Search Tab). Images can be “copied/pasted” from other applications, specifically browsers. Find images in the browser. Right-click and copy the image. Hit the paste button of the target monitor to have it display.

The “Fit to Width” check box will expand or contract the image so it fits the width of the Monitor.

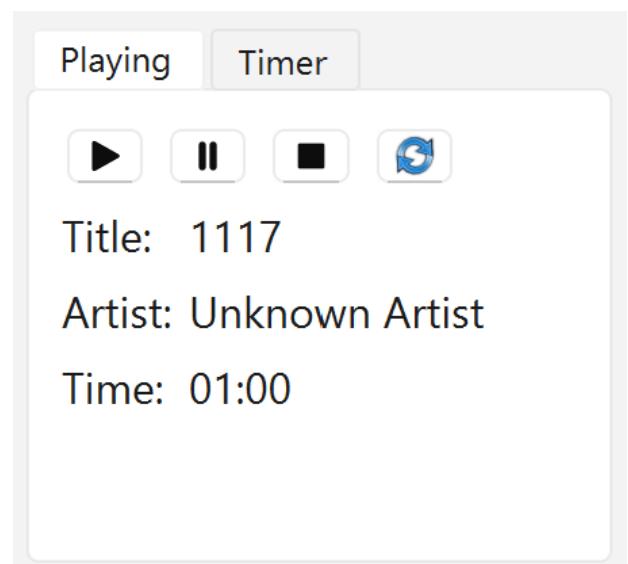


## Timer Display

The countdown timer overlays an LCD-style countdown timer on the main monitor. The start time and the time at which the monitor turns red can be set independently. If the Turn Red time is left at zero then the timer will still turn red as it times out. The timer will continue to run if it is hidden. The Play button will always start the time from the beginning. The Pause button when toggled will pause the timer. When clicked again it will continue counting from where it was paused. The Rewind will reset to the start time but continue to countdown.

## Playing Controls

The playing controls provide universal start, pause and stop for music, and videos. For promos, which are a combination of videos and static slides, only the countdown for the videos will be displayed. The time for static slides is set on the Slide Show Feature Tab. The Playing controls also allows an infinite loop to be set. If the loop is disabled, it will also immediately stop the currently playing media.

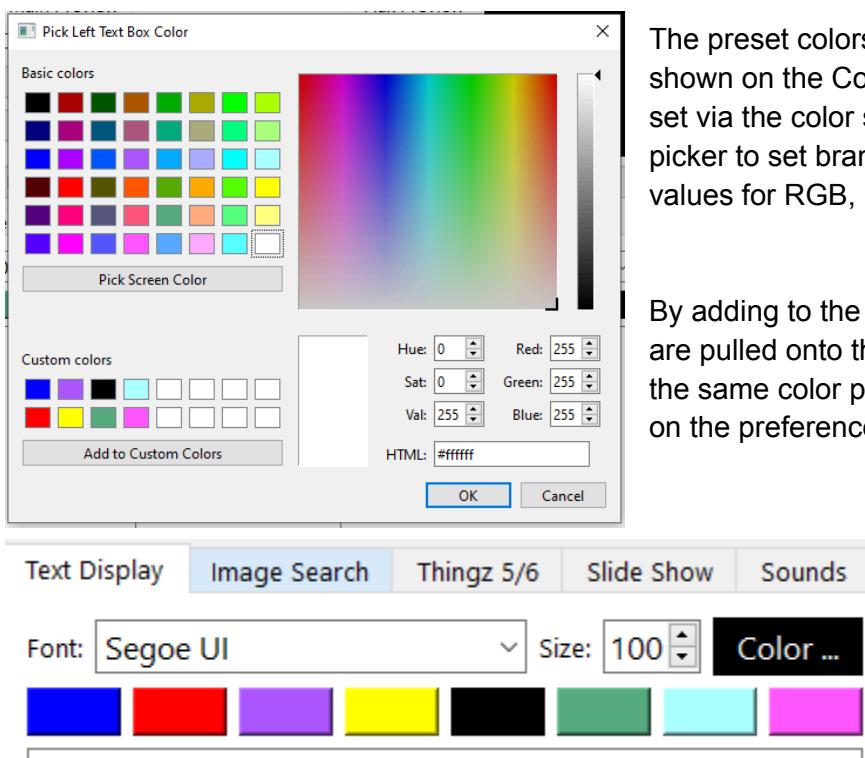


# Feature Tabs

## Text Display



The Text Display offers two independent windows of text that can be directed to either monitor. The text background color and font can be set independently. For accessibility reasons, the text is displayed in black and white on the control panel. It is centered in the font and color selected when pushed to the monitor of choice. Text can also be loaded from storage.



The preset colors are the first eight colors shown on the Color Picker. The presets can be set via the color selection dialog. Use the color picker to set branded colors using numeric values for RGB, HSV, or Hex (HTML).

By adding to the custom colors, the same colors are pulled onto the text display. Note that this is the same color picker used to set Team colors on the preference page.

The font foreground color is automatically calculated as either black or white based on the background color.

# Image Search Tab

## How Image and Sound File Search Works

It is important to understand how image searching has been implemented to set your image library up to be correctly indexed. The same approach has been used for sound files. ImproTron breaks up the file name using these separators: `_+-.ls+`. It treats each fragment of file name text as a keyword much like a social media hashtag. It builds an internal database of tags along with the file extensions. It is this database that can be searched. By changing the file name to describe the contents with a few keywords, you will make it easier to know what the file contains and to therefore search for it.

For example, imagine a file containing a GIF of a cat shaking its head with the word “nope”. Name the file “cat\_nope.gif” or “cat nope.gif” for example. Imagine then you also had a JPEG image of a cat wearing a hat called “cat+hat.jpg”. Search for “cat” would return both files because “cat” is one of the keywords. Searching for “jpg gif” would return both files because they each have a file extension that matches the list of tags. A search for “cat gif” with the “All Tags” checkbox check would just return “cat nope.gif” (if that’s how it was named) because all the tags have to apply to the file for it to match.

## Finding Images

Common file formats such as BMP, JPG, and PNG are supported. The examples below show the impact of forcing all tags to be present. Note that “cat” and “cats” will be treated as separate tags.

### Any tag search:

The screenshot shows the 'Image Search' tab selected in a menu bar. The main search input field contains 'cat jpg'. Below it, there are buttons for 'Search', 'All Tags' (unchecked), and 'Media Files: 1316'. To the right of the search area is a large empty rectangular box labeled 'Image:' which is currently blank. On the far right, there is a vertical column of four buttons: 'Show Main', 'Show Auxiliary', 'Add to Slideshow', and 'Game Frame'.

Search for tags in the filenames in the Image Library

cat jpg

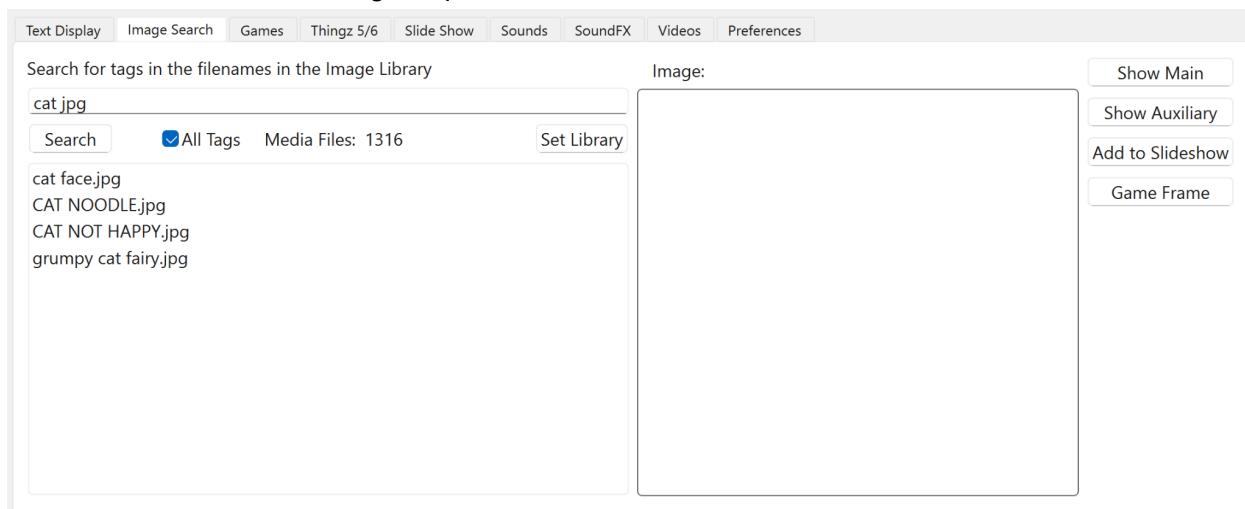
Search All Tags Media Files: 1316 Set Library

battlescene galactica.jpg  
battleship.jpg  
breakin'.jpg  
cassanova.jpg  
continuation.jpg  
da doo ron ron rap rap.jpg  
da doo ron ron.jpg  
dance party.jpg  
dick van dyke.jpg  
dueling soundtracks.jpg  
echo.jpg  
elimination rap.jpg

Image:

Show Main  
Show Auxiliary  
Add to Slideshow  
Game Frame

The same search with All Tags required:



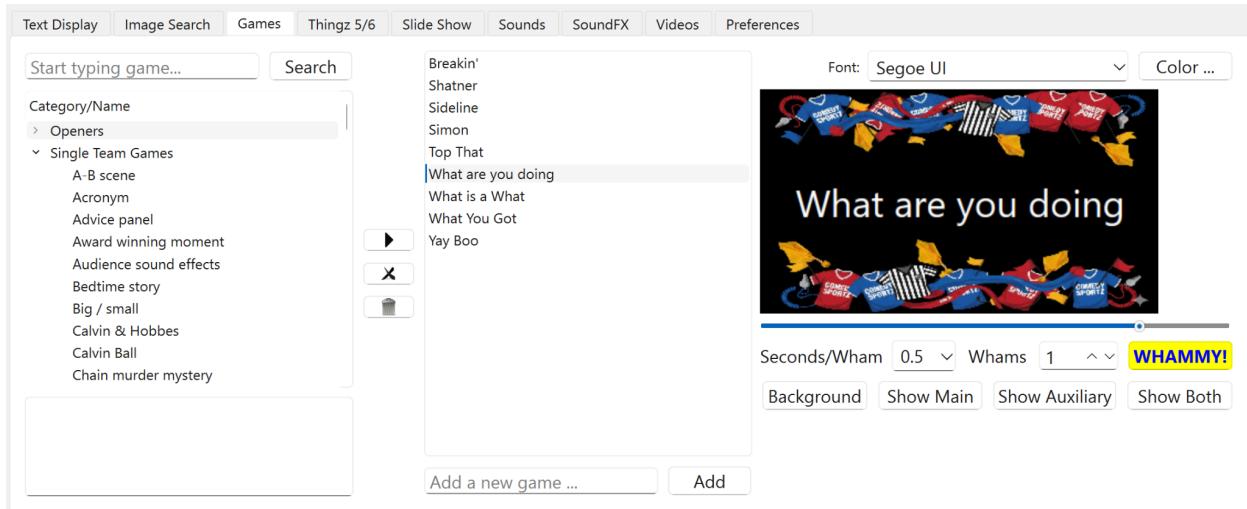
Once a short list of images has been returned, each can be previewed on the tab. The currently previewed file can be pushed to either monitor or added to the slide show list on the Slide Show tab to assist in building slide shows. The location of the file appears above the preview.

The image can be added to the current list of slide show images. The image can also be sent to the Games Feature to be used as a background.

The location of the image library used on both this tab and the Slide Show tab is set using the "Set Library" button. Once the directory is selected, there will be a short delay while ImproTron builds a new internal database of keywords. This same sequence can be used to index new images saved after ImproTron was started.

## Games Tab

The Games tab is intended to allow the Loyal Fans to see what game is being played. It also supports a Whammy feature to allow a random game selection.



## Setup

Have a creative person make borders that can act as frames for games. Store them in a directory within the folder selected to house all images.

Click on Background and navigate to the desired frame to load. It can also be found via an image search or navigating on the Slide Show tabs. Both have buttons to move a slide directly to game background view on this tab.

Use the Color button to select a contrasting color. Initial the text will be displayed as 'No Game Selected'.

Use the slider right below game image to scale the text to fit comfortably within the frame.

Enter the games being played by searching for them in the games list and using the right pointing arrow button. You can also use the add text entry and add button.

Select the game you want to show and send it typically to the Auxiliary monitor.

## Whammy

Set up the list of games to select from. If you double click on a game category, the entire category will be added to the games list.

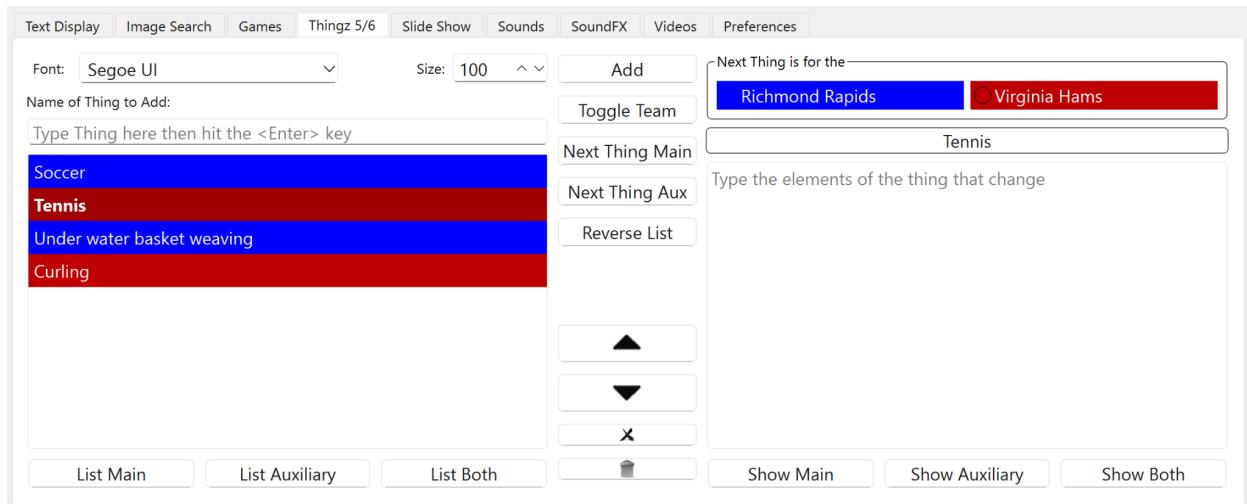
Set the delay between showing the next game. 1 Second will give enough time to see it.

Set the number of random selections. 10 can be a good starting point.

Press Whammy! and ImproTron will randomly show games stopping after the prescribed number of Whams. The choices will be shown on the main monitor.

## Thingz Tab

This tab is used to facilitate capture and display during the Thingz round. The flow works best if the activities are entered first followed by the substitutions.



## Thingz Flow

1. The Referee gets the things. Enter in the “Name of Thing to Add” text box and hit the enter key. This is faster than the Add key. The color will be toggled starting with blue then red in the example.
2. The Referee gets substitutions. Click on each thing then type in the substitutions into the left hand side text box. In the example, Tennis is selected.
3. Fix any spelling errors or color errors:
  - o Double click on the list item to correct spelling
  - o Select the item and edit the substitution to fix.
  - o Toggle team to correct colors.
  - o Use the X button to delete the selected item. Use the trash can button to clear the list.
  - o Use the up down arrows to move the currently selected up and down the list.
4. For the first guess use Show Auxiliary while the first thing is selected. After the guess, use Show Main.
5. Subsequently use Next Thing Aux, followed by Show Main to cycle through the game.

## “Twelve Days of” Flow

Enter the things in the format 1 - First Thing, 2 - Second Thing etc

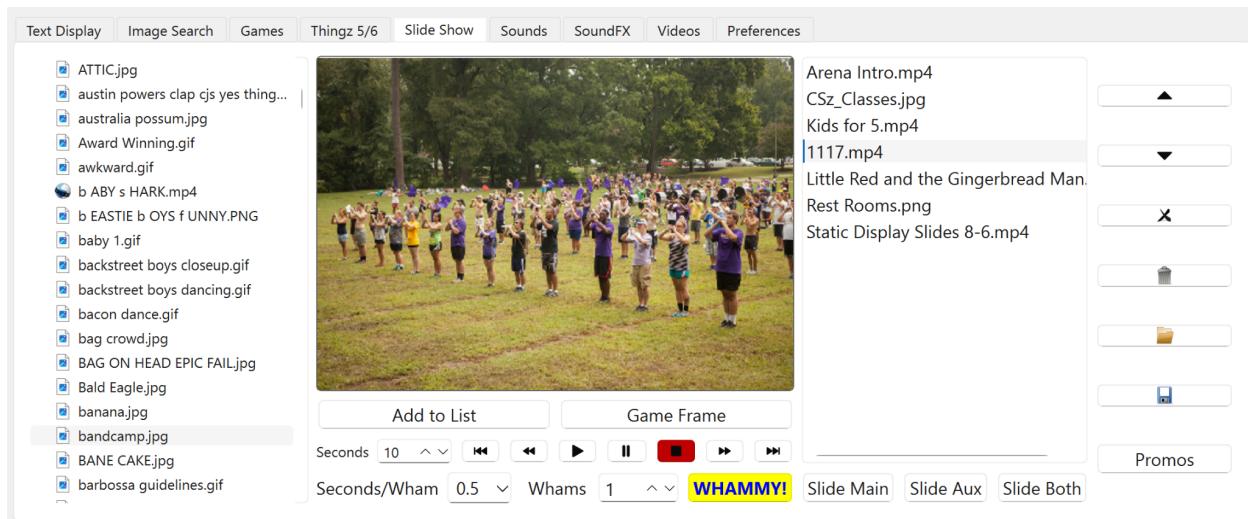
When the players are about to sing use the Reverse List button to place the 12th thing at the top of the list.

You can display the list all at once using the List Main Button.

Or you can use Show Main and cycle through the list using Next Thing Main.

## Slide Show Tab

The Slide Show tab is where you can build a list of images to be shown before the show or intermission. The tab consists of a few areas. To the left is a hierarchical view of folders within the image library. The location of the image library is set on the Image Search tab. To the right is where a list of images can be viewed and managed. There are buttons to move an image up and down the list, delete images from the list, and clear the list. Lists can be loaded or saved. In the center section of the tab is a preview area. Files that are found via the folder structure will be previewed as well as any item selected from the list of images. Any image from a list can be pushed to one or both monitors. The can be added to the list or copied to the Game Feature tab to be used as a frame.



Typical controls for running the slide show are provided below the preview. The main buttons are the Play, Pause, and Stop buttons. The delay between slides can be set via the Seconds spin box. This setting will be remembered between sessions.

This tab also supports a random selection feature. The Whammy button will cause the random selection of slides from the list for as many “Whams” as has been set. The delay between slides can be set to 0.5, 1.0, 1.5, or 2.0 seconds.

The Promos button will automatically load a predefined set of slides from a directory. They can be static slides or movies without sound. The intent is that you set of a capability to sync media down from a cloud drive such as Google Drive or Dropbox. Marketing managers can then define the content and the media can be synced down. It will be displayed in alphabetical order. Slides will be shown for the length of time given by the Seconds spin box. Movies will play their entire length.

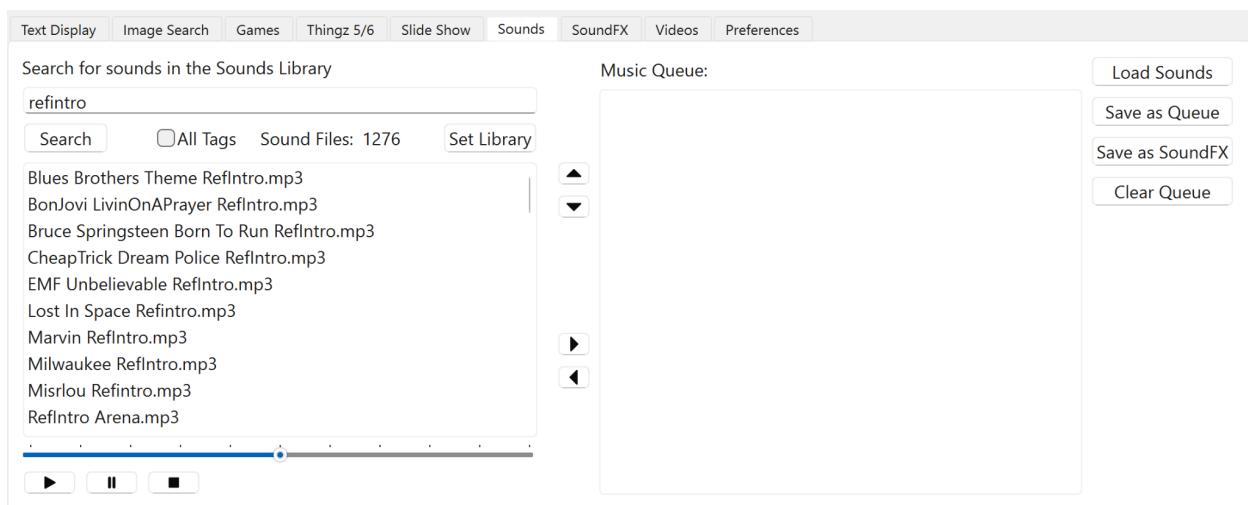
Note that the Promos will be automatically show on start up. Unless they are explicitly stopped via the red highlighted stop button, they will write over the top of any other media actions.

## Sounds Tab

The Sounds tab is an experimental feature for audio files. The following are supported:  
".aac", ".avi", ".flac", ".m2a", ".m3a", ".m4a", ".m4b", ".mkv", ".mov", ".mp2", ".mp2a", ".mp3",  
".mp4", ".mp4a", ".mp4v", ".mpg4", ".mpga", ".ogv", ".qt", ".wav", ".wma", ".wmv"

A similar strategy as described in the Image Feater section applies to sound files. Name them with file name fragments as to what they contain and what use they are e.g.

- bird sfx.wav
- high energy bumper.mp3
- singit country ballard.mp3



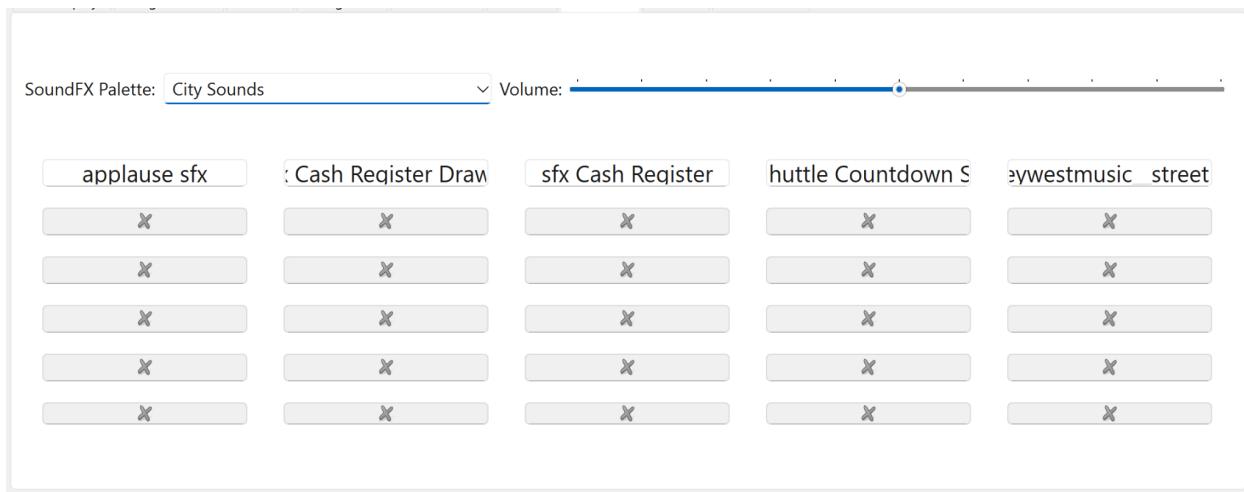
The sound library defaults to where Music files are typically stored but can be changed via the "Set Library" button. To play a sound from a list, move it back to the search results window. Controls allow for sounds to be played from the search results.

Much like lists of images can be created so can lists of sounds. The main use is to create lists of .wav sounds to be used in the Sound FX Feature. To do this, execute searches and use the left right arrows to move a result into the Music queue. Use the Save as SoundFX to make available as a sound palette on the Sound FX Feature. Add "wav" to an All Tags search to ensure only wav files are included.

## Sound FX Tab

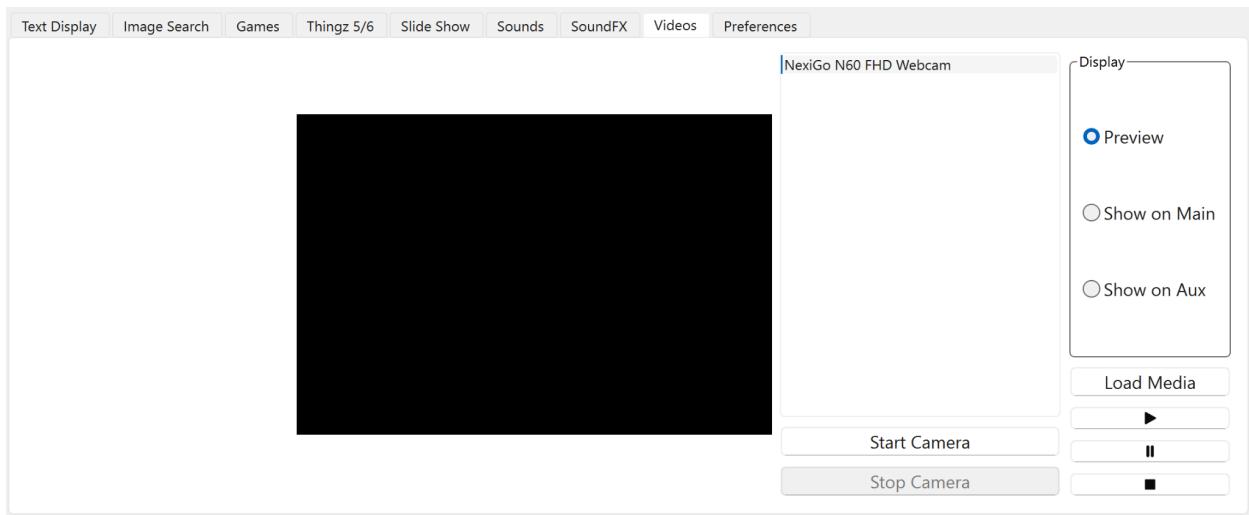
The Sound FX tab is intended to be used to enhance a show by using prebuilt lists, or palettes of sounds. Only WAV files are currently supported.

Any list saved as a Sound FX palette will be made available on the Sound FX Palette drop-down. When a palette is selected, the sounds are assigned to buttons from left to right, top to bottom. If any file type besides WAV files is included in the list, they will be skipped. Playback can be started and then stopped by clicking on the associated button. Multiple sound effects can be played at once. Volume can be controlled from this tab as well.



## Videos Tab

The Videos tab combines the ability to display MP4s and webcams on monitors. The webcam feature could be used for showing Voice and the booth team during the introductory ref spiel. Currently, the webcam or video can only be shown on one monitor or preview at a time.



Select where you want to view the media from the three options provided in the Display radio buttons. Load an MP4 then hit play to see the video. If the computer is connected to the sound system, the sound will play. The loop button can be pressed to make the video continuously replay.

To use a webcam, select which device you want to use then “Start Camera”. To halt the webcam, click the “Stop Camera” button.

# Companion Integration

[Bitfocus Companion](#) is a free desktop application designed to give operators a unified, customizable control surface for almost any audiovisual device or software. At its core, Companion acts as a command-routing and macro engine: you build “buttons” on virtual pages, and each button can trigger one or more actions across dozens of supported protocols (OSC, HTTP, WebSockets, TCP/UDP, MIDI, DMX, tally, vendor-specific APIs, and more). These buttons can then be executed from a Stream Deck, web browser, tablet, or keyboard—letting you consolidate control of complex AV systems into a single, operator-friendly interface.

Companion’s real strength is its extensibility. It uses a modular architecture where each device or platform is supported by a module (e.g., for QLC+, vMix, OBS, ATEM, Lightkey, HyperDeck, etc.). Modules expose actions, feedback, and variables, allowing you to build sophisticated, state-aware workflows without writing code. Companion can listen to device status and update button colors, text, or logic dynamically—so your control interface doubles as a live status monitor. It can also run sequences, conditional logic, delayed actions, and multi-step macros, making it ideal for show control, broadcast workflows, and theater cueing.

ImproTron can be controlled via the Generic OSC module. It uses the tag method for querying for set of images or sounds. The diagram below is intended to show how light and sounds can be integrated into a simple pushbutton or a more advanced queued control environment. In this setup ImproTron acts as a simple sound and visual controller.

## Supported OSC Commands

In the command table below, tags is a string of space-delimited tags. These operate in the same way tags do in the sound and image search, when “All Tags” is checked. When configuring buttons in Companion, use the search tools in Improtron to isolate a specific file. Otherwise, unless it is the Stinger command, Improtron will use the first item of the set of files returned.

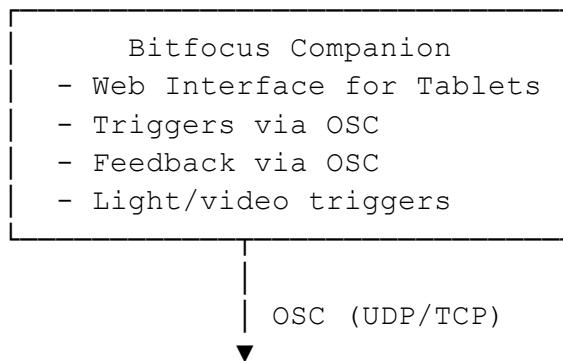
### Commands

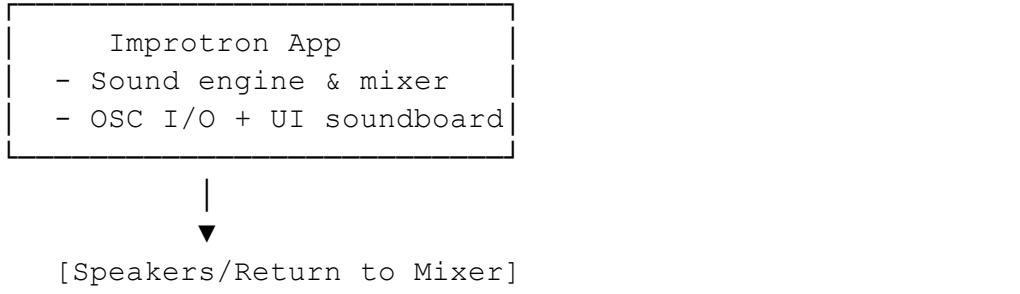
Feature	Description/Structure	Description
Play Command	<code>/sound/play tags</code>	The first sound of the tag search result set plays immediately. Send as a string argument.
Play Command	<code>/sound/seek seconds tags</code>	The first sound of the tag search result set plays starting at ‘seconds’ from the start. Seconds expressed as a floating number. Send as multiple arguments.

Stop Sounds	<code>/sound/stop</code>	Stop sound gracefully
Randomized Groups	<code>/sound/stinger tags</code>	Random sound of the tag search result set plays immediately. Send as a string argument.
Stop Command	<code>/media/show monitor tags</code>	Shows the first media (image or GIF) matching tags. Monitor can be <i>main</i> , <i>aux</i> , or <i>both</i> . Send with multiple arguments.
Play FX Command	<code>/soundfx/play tags</code>	Designed for WAV files only. Can play multiple at once.
Stop FX Command	<code>/soundfx/stop</code>	Stops all active sound effects
Button Press	<code>/button/press buttonID</code>	Presses any button on the UI using its Qt ID
Adjust a Spin Box	<code>/spinbox/change spinboxID delta</code>	Changes the number in a spin by the supplied numerical delta. If 0, then resets the spin box to 0. QT IDs for Scores teamScoreLeft, teamScoreRight
Fade Out	<code>/sound/fade seconds</code>	Sound fades smoothly in seconds, given as a floating number

The current list of available buttons and spinboxes can be obtained by emailing support. See below.

## Architecture Summary





## Imrotron Control Architecture Overview

### Primary Control Modes

Imrotron acts as the sound and media player, which any OSC source can control. QLC+ is a free light control software. Lights would be controlled via a [network-attached DMX device](#):

Mode	Master Controller	Imrotron Role	Typical Use Case
<b>Standalone / Companion-Controlled</b>	<b>Companion</b>	<b>Performer tool</b> – plays sounds, reacts to button presses, triggers visuals or lights via OSC	Small shows, rehearsals, improv matches
<b>Cue-Integrated / QLC+ Controlled</b>	<b>QLC+</b>	<b>Server module</b> – executes sound cues	Full productions or shows with complex timing and cue lists

### Communication Flow

#### Scenario 1: Companion → Imrotron

[Stream Deck / Browser UI / Tablet]

↓  
[Companion]

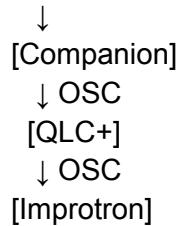
↓ OSC

[Imrotron]

- **Companion** provides a rich, browser-based button interface.
- **Imrotron** handles execution: audio playback, visuals, etc.
- Simple, low-latency, one-to-one relationship.

## Scenario 2: QLC+ → Imrotron (via Companion optional)

[Stream Deck / Browser UI / Tablet]



- **QLC+** becomes the **show control master**: it runs cue lists that trigger both lights and sounds.
- **Companion** still acts as a **front-end** — but now it's just sending cues to QLC+.
- **Imrotron** executes only what QLC+ tells it to do (i.e., it becomes a **sound engine**)..

## OSC Configuration

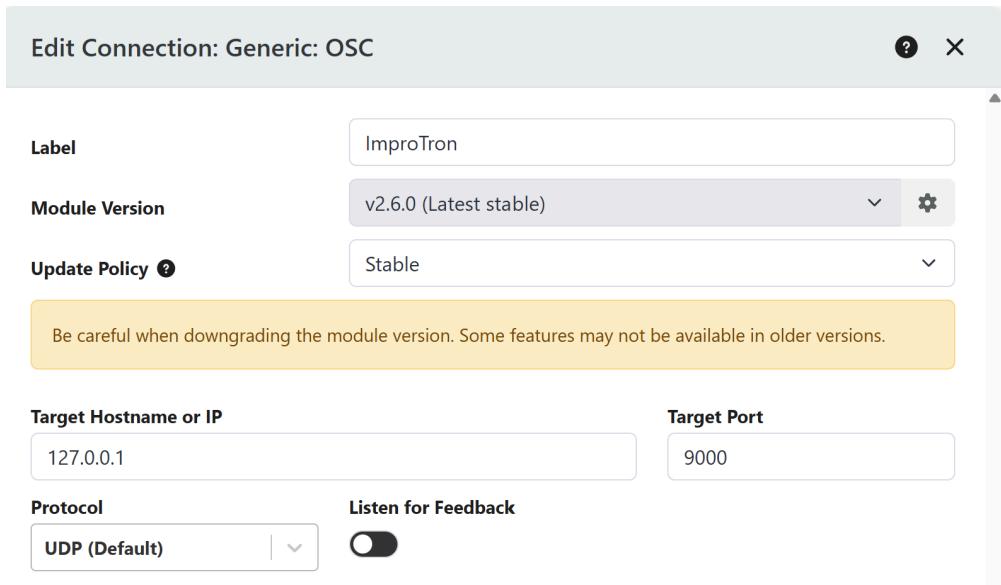
The Imrotron OSC Listener listens on a configurable port. This port must be set in Imrotron and in the controlling app. In Companion, this is set up when the Generic: OSC connection is established. Port 9000 is the default for Imrotron. If it is changed in preferences, then Imrotron must be restarted. The diagram below shows the setup to control Imrotron via Generic OSC.

### Connections

When you want to control devices or software with Companion, you need to add a connection to let Companion know how to communicate with whatever you want to control.

Connection	Status	Actions
ImproTron Generic: OSC	v2.6.0 OK	Toggle More
Spotify Spotify: Web API and Controller	v2.5.0 OK	Toggle More

The settings for Generic OSC. ImproTron and Companion must be installed on the same PC.



An example button setup which will request ImproTron look for any matches matching all tags then play a random selection.

The screenshot displays a Streamdeck interface with a grid of buttons labeled with various functions like 'CSz Preshow', 'Half Time', 'Stop Promos', etc. To the right, a detailed configuration panel for a specific button is shown. The panel is titled 'Edit Button 1/2/3' and includes tabs for 'Pages', 'Presets', and 'Recorder'. The main configuration area is for a 'Bumper' button. It features a preview window showing the button's appearance with a blue background and white text. Settings include 'Font size' (18pt), 'Text' (empty), 'BG' (blue), 'Topbar' (Follow Default), and 'Text' (containing 'bumper'). Below this are sections for 'Step Progression' (Auto) and 'Rotary Actions' (disabled). The 'Press actions' section is set to 'ImproTron: Send string' with an 'OSC Path' of '/sound/stinger' and a 'Value' of 'bumper'. There is also a '+ Add action' button.

An example that request ImprTron show on both monitors the first image file that matches all the tags given: “comedy sportz ric”

The Streamdeck interface shows a grid of buttons. One button is labeled "CSz Logo". The Companion app configuration for this button includes:

- Button text string:** CSz Logo
- Font size:** Auto
- Text color:** White
- Background color:** Blue
- Topbar:** Follow Default
- Step Progression:** Auto
- Rotary Actions:** Enabled
- Press actions:**
  - ImprTron: Send message with multiple arguments
  - OSC Path: /media/show
  - Arguments: both comedy sportz ric

An example show multiple things happening. The Promos button kicks off the promos. A specific image of a ComedySportz logo is shown on the aux monitor. A specific Spotify playlist is started.

The Streamdeck interface shows a grid of buttons. One button is labeled "CSz Logo". The Companion app configuration for this button includes:

- Step 1:**
- Press actions:**
  - ImprTron: Send string
  - OSC Path: /button/press
  - Value: startPromosPB
- Press actions:**
  - ImprTron: Send message with multiple arguments
  - OSC Path: /media/show
  - Arguments: aux comedy sportz ric
- Spotify: Start Specific Album / Artist / Playlist**
- Type:** Playlist
- Item ID:** 0HgMLIQLRsdBSfLoztQFK
- Action Behavior if Provided Item is Currently Playing:** Play (if paused)

Use of Companion is a more advanced configuration but quite powerful. Any application that controls via OSC should work. However this feature is new and untested on the universe of applications and so contact support to discuss your needs.

# Support

You can enter feature request directly in the associated github repo or email feedback and other issues to [guy.winterbotham@gmail.com](mailto:guy.winterbotham@gmail.com). Please give the context of the issues, the steps to reproduce and what you expected would happen.