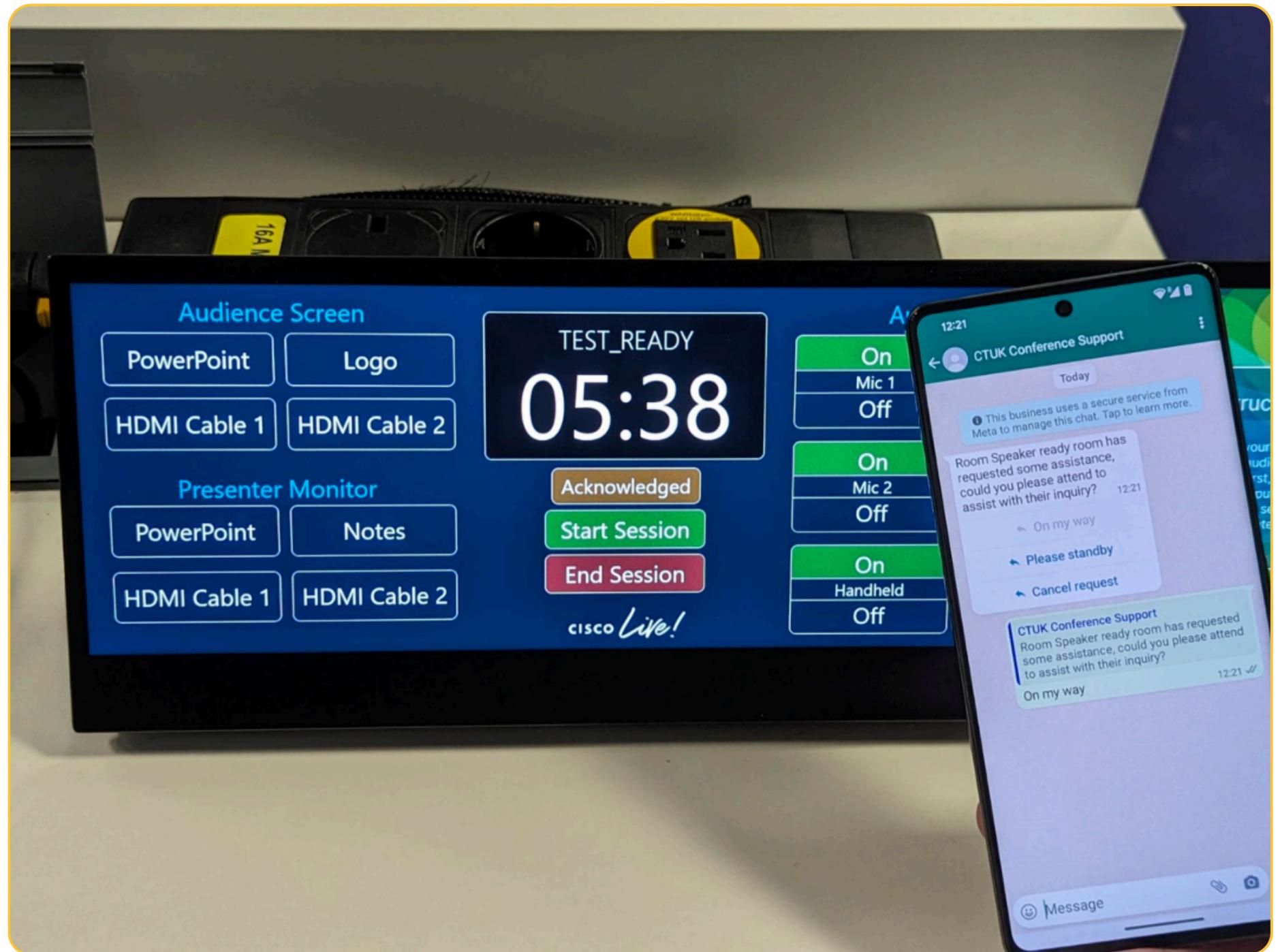


Touch Controller V2

User Guide

Touch Controller V2

Widget based touch screen controller for professional AV applications.





The Touch Controller V2 system is a versatile touchscreen control platform designed to simplify complex AV operations. With a strong focus on ease of use, it allows a wide range of users, from experienced AV technicians to non-technical event staff, to manage AV environments with confidence.

Originally developed for live event settings, the system has proven valuable in many different roles and situations. Presenters can coordinate sessions and trigger technical cues with a single tap. Hospitality managers can switch multiple televisions to specific channels, control background music, or adjust lighting scenes, all through a clear and straightforward interface.

Introduction

Touch Controller V2 offers:

- A fully customisable layout with support for custom backgrounds and a wide selection of widgets
- Compatibility with any touchscreen that works with Microsoft Windows or with a supported Linux distribution
- Support for multiple outputs and advanced AV routing

Whether you are managing a keynote presentation or setting the atmosphere in a hotel lounge, Touch Controller V2 provides powerful control without added complexity.



Touch Controller V2 is built around a widget-based structure that defines everything displayed on the screen. Each control, display element, or interactive button is a widget, allowing for complete flexibility in how the interface is designed and used.

The system supports multiple pages, each of which can have its own custom background image to suit the environment or branding. Pages can also be secured with a PIN, making it easy to restrict access to sensitive or advanced controls.

Multiple units can be linked together to create a networked system. This allows for coordinated control across rooms, zones, or even entire venues, expanding the system's capabilities and reach.

System Overview

Widgets

- Text label
- Pagination button
- Jump to page button
- Network Information dialog
- Embed website (Iframe)
- Countdown clock programmer
- Countdown clock display
- BitFocus Companion button
- BitFocus Companion Variable Setter
- Apollo Insights Call for assistance (WhatsApp)
- Apollo Insights automated session countdown clock
- Apollo Insights session time logging (started/ended)
- Apollo Insights current and next session dialog
- Apollo Insights session occupancy logging
- Apollo Insights session issue reporting



System Requirements

Touch Controller V2 is designed to run on commonly available hardware and supports both Windows and Linux platforms. Below are the minimum system requirements:

Supported Operating Systems

- Microsoft Windows 10 or later
- Ubuntu 20.04 LTS or later

Minimum Hardware Specifications

- Intel i5 processor or equivalent
- 8 GB RAM
- 20 GB available hard drive space
- Gigabit Ethernet network connection
- Touchscreen compatible with the chosen operating system
- Internet connection (to license and to use Apollo Insights widgets)

Additional Software

- BitFocus Companion version 3 or later must be installed and running to enable integration with Companion-based widgets.
- Docker (Ubuntu)

A stable wired network connection is recommended for reliable operation, especially when using features such as multi-unit coordination, external integrations, or Companion connectivity.



To install Touch Controller V2, users must first contact the Software Solutions Team at Creative Technology (UK). The team will provide an initial download link and offer guidance tailored to your deployment requirements.

Windows Installation

On Windows systems, Touch Controller V2 is installed using a standard guided installer. During installation, you will be able to choose:

- Whether to enable BitFocus Companion and Apollo Insights integration
- Whether to install a clean blank system or load a demo configuration to explore key features right away

These installation choices cannot be changed later through the web interface but can be adjusted manually by editing the configuration file, see advance configurations for more details.

Once installed, updates can be downloaded and applied directly through the built-in web interface.

Ubuntu Installation (Coming Soon)

Linux support is currently in development and will be delivered through a Docker image, targeting systems running Ubuntu 20.04 LTS or later. This deployment method will streamline setup, updates, and portability across environments.

Until the Docker image becomes available, direct installation support is offered by the Creative Technology Software Solutions Team. Users interested in Linux deployment are encouraged to contact the team for assistance.

Installation



Touch Controller V2 runs as a background service and starts automatically when the system boots. The application includes a built-in web interface for management and configuration.

Accessing the Interface

1. Open a web browser on any device connected to the same network.
2. Enter the IP address of the machine running Touch Controller V2, followed by port 5500.
Example: `http://192.168.1.100:5500`
3. The system dashboard will load.

Accessing the web interface

Tip: If you're unsure of the device's IP address, add a Network Information widget to the touchscreen to display it.

Web Interface Features

- About: View the current system version and check for updates
- Canvases: Launch the canvas designer to manage pages, widgets, and layout
- Background Media: Upload and manage background images for each page
- Import/Export: Backup or restore system configuration
- License Management: View and manage the activation status of the software



Licensing

Touch Controller V2 requires a valid license to activate the touch interface and enable full system functionality. Without a license, users can access the web interface and configuration tools, but the on-screen touch interface will remain disabled.

How Licensing Works

Licenses are issued in the form of a *.license* file and are tied to a project rather than a single device. A license file can be used across multiple units within the same deployment and will report usage back to the central licensing hub.

Obtaining a License

Licenses are issued by the Software Solutions Team at Creative Technology (UK). Users without access to the self-service portal will need to request a license directly from the team. If you have access to the portal, you can generate your own project licenses.

Applying a License

1. Open the web interface and navigate to License Management
2. Upload your *.license* file using the provided upload tool
3. The system will validate the license with the licensing hub over the internet
4. Once validated, the system can continue to operate offline

License Expiry

All licenses have a defined expiry time. This is shown on the License Management page and should be monitored if your deployment is time-sensitive or temporary.

For renewals, replacements, or offline-use requests, contact the Creative Technology Software Solutions Team.

Note: The device must be connected to the internet during the initial license activation. After activation, an internet connection is not required for standard operation.

Tip: If your system uses Apollo Insights widgets, an active internet connection is required at all times for those features to function correctly.



Images

Each page in a canvas can have a custom background image to enhance usability, branding, or visual clarity. These images are managed through the Image section in the web interface.

Uploading Background Images

1. Use the upload form to select and upload your image file (commonly used formats include JPG and PNG)
2. Once uploaded, the image will appear in the list of available backgrounds

Managing Uploaded Media

- Preview: See a thumbnail of each uploaded image
- Rename: Give the image a meaningful name to make it easier to find later
- Delete: Remove any unused or outdated images to keep your workspace tidy

Once uploaded, background images can be assigned to individual pages within the Canvas Designer.

Tip: For best results, match the resolution of your background image to the canvas resolution to avoid stretching or blurring.



Canvases

The Canvas Designer is accessed through the web interface and is where you create and manage your canvases.

Creating a New Canvas

When creating a canvas, you'll be prompted to:

- Choose a screen resolution manually or select from predefined presets (e.g., 1920x1080, 1920x550)
- Give the canvas a name to help identify its purpose (e.g., "Speaker Panel" or "Hospitality Control")

Multiple canvases can exist in the system, allowing you to experiment with different layouts or tailor designs for different user groups.

Managing Canvases

After a canvas is created, you can:

- Use the Edit button to enter the canvas designer and begin laying out widgets
- Use the View button to preview the canvas as it will appear on the touchscreen
- Rename or delete a canvas using the provided controls

Hint: If you've installed a demo configuration, you may see one or more example canvases preloaded. It's recommended to delete these before starting your own layout to ensure a clean working environment.



The Canvas Designer is the main tool for building and customising the touch interface. It allows you to place, configure, and arrange widgets across pages, apply backgrounds, and manage layout details visually.

Canvas Designer



Canvas Designer

Designer Layout

The interface is divided into three main panels:

- Left Panel – Widget Selection
This panel contains all available widgets. To add a widget, simply click on it. It will appear in the canvas preview, placed on the currently selected page. A default page is available when a new canvas is created.
- Right Panel – Properties
This panel shows settings for the selected item – whether it's a widget, a page, or the canvas itself. The panel updates contextually depending on what is selected. Page and canvas settings are shown together when applicable.
- Bottom Panel – Page Management
From here, you can select pages and manage them by adding, renaming, copying, or deleting as needed.

Working with Widgets

Once widgets are added to the canvas, they can be freely moved and resized by clicking and dragging or using the standard resize handles. When a widget is selected, the properties panel on the right becomes active, allowing you to:

- Adjust position and size
- Change colours and font sizes
- Modify widget-specific options and behaviours

Saving and Editing

- Save: Once changes are made, the Save button at the top becomes active and must be clicked to apply your edits
- Undo: A simple undo tool is available to revert recent changes
- Zoom: A zoom scale option in the top-right corner allows you to adjust your view for precision editing



Canvas Designer

Canvas & Page Properties

Canvas properties

Width

1920 px

Height

550 px

Enable Apollo Insights messages

Roles

Tech

Page properties

Foreground colour



Background colour



Background image

CT-TouchController-BG

Access code

123

Sort order

7

The properties panel in the Canvas Designer allows you to configure both canvas-level and page-level settings. These settings help define how your layout behaves, how it's displayed, and who can access certain parts of it.

Canvas Properties

When no widget is selected, the properties panel shows options for the currently active canvas.

- **Canvas Size**
You can change the canvas resolution if it was entered incorrectly during setup. Make sure the resolution matches the actual screen resolution of the device that will display it. A mismatch will result in no canvas being found to display.
- **Apollo Insights One-Way Messaging**
Enabling this feature allows the Apollo Insights platform to send notifications to users of the touch panel. These messages appear as pop-up notifications on the interface.
- **Canvas Role**
A role can be assigned to a canvas, allowing the system to identify its purpose in multi-device environments. For example, an “AV Tech Panel” and a “Presenter Panel” may share the same resolution but have different roles.
- **Note:** Canvas roles are assigned per instance of the software — not per screen — and can be configured through the Touch Interface Launcher (covered later).

Page Properties

When a page is selected, additional options appear in the properties panel.

- **Background Style**
You can choose a solid background colour or apply a background image from the uploaded image library.
- **Access Code (PIN)**
Pages can be restricted using a PIN. When navigation to that page is triggered, a PIN entry dialog will appear. This is useful for limiting access to configuration or sensitive controls.
- **Sort Index**
Each page has a numeric sort index. This affects both its order in the Canvas Designer and how it is navigated using pagination widgets.
The page with sort index 1 is considered the default and will be the first page shown when the canvas is loaded.



The Touch Interface Launcher is responsible for displaying the appropriate canvas interface on connected screens. It runs as an OS-level background service and is designed to launch automatically when the operating system's desktop environment loads.

When the system starts:

1. The launcher scans for all currently connected displays.
2. It determines the resolution of each screen.
3. For each resolution, it checks the available canvases.

If only one canvas matches a given screen resolution, that canvas is automatically launched.

If multiple canvases are available at the same resolution, the system will:

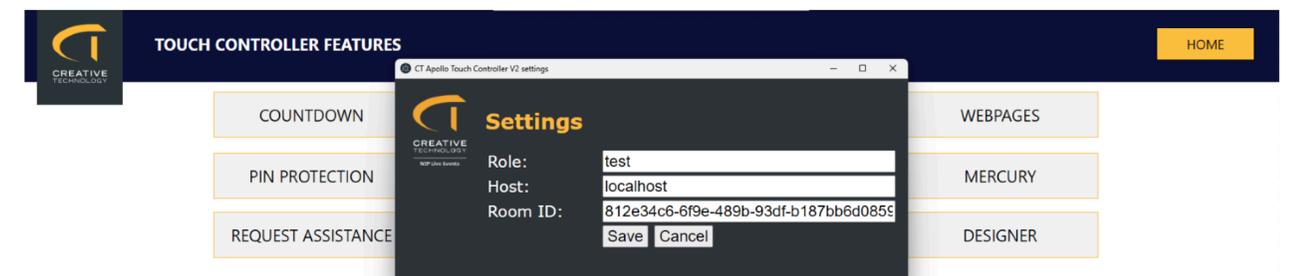
- Use any defined canvas roles as a preference to auto-select the correct one.
- If no clear match is found, display a canvas picker dialog allowing the user to choose which canvas to load.

If no canvas matches the screen resolution, or if the system is unlicensed, a UI message is displayed explaining the situation (e.g. “No matching canvas” or “License required”).

A shortcut to the Touch Interface Launcher is also placed on the desktop, allowing users to close and reopen the UI manually if needed.

While the UI is running, pressing F2 on a connected keyboard opens a settings dialog. This dialog allows advanced configuration of the launcher's runtime behaviour:

- Role Tag
Assigns a role to the local instance, which helps the system auto-select the correct canvas when multiple options exist.
- Host Address
Defines the server instance that the launcher should connect to. This defaults to localhost, but can be changed by its IP address. This is particularly useful for shared panel deployments where multiple UIs need to be synchronised – for example, countdown clocks across a room.
- Room ID
This field is used when Apollo Insights widgets are in use. It sets the panel's Apollo Insights Room ID, which is required for data collection, messaging, and occupancy tracking features to function.



Creative Technology Touch Controllers can be used at any event to make systems easier and more accessible for clients, speakers or volunteers.

Select a feature to see how it works. Use the INFO button on each page to get more details

Touch Launcher



Label

Purpose

Used to display static text, such as instructions, section titles, or room names. Ideal for guiding users or marking interface areas.

Use Cases

- Displaying section headings (e.g., “Audio Settings”)
- Showing instructions or notes for users
- Labelling grouped widgets visually

Properties

- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction

None



Widgets

The screenshot shows a dark blue header bar with the Creative Technology logo on the left, the text 'TOUCH CONTROLLER FEATURES' in the center, and a yellow 'HOME' button on the right. Below the header is a grid of nine light grey buttons with yellow borders, arranged in three columns and three rows. The buttons are labeled: COUNTDOWN, CONTROL, WEBPAGES, PIN PROTECTION, NETWORK INFO, MERCURY, REQUEST ASSISTANCE, EVENT EXAMPLE, and DESIGNER. A yellow arrow points to the 'TOUCH CONTROLLER FEATURES' text in the header. Below the grid is a paragraph of text: 'Creative Technology Touch Controllers can be used at any event to make systems easier and more accessible for clients, speakers or volunteers. Select a feature to see how it works. Use the INFO button on each page to get more details'.



Pagination

Purpose

Allows users to navigate between different pages within a canvas. Designed for quick movement between sequential or predefined positions in a multi-page layout.

Use Cases

- Moving forward or backward between content pages
- Jumping directly to the first or last page on a canvas
- Used commonly at the bottom of touch panels for intuitive navigation

Properties

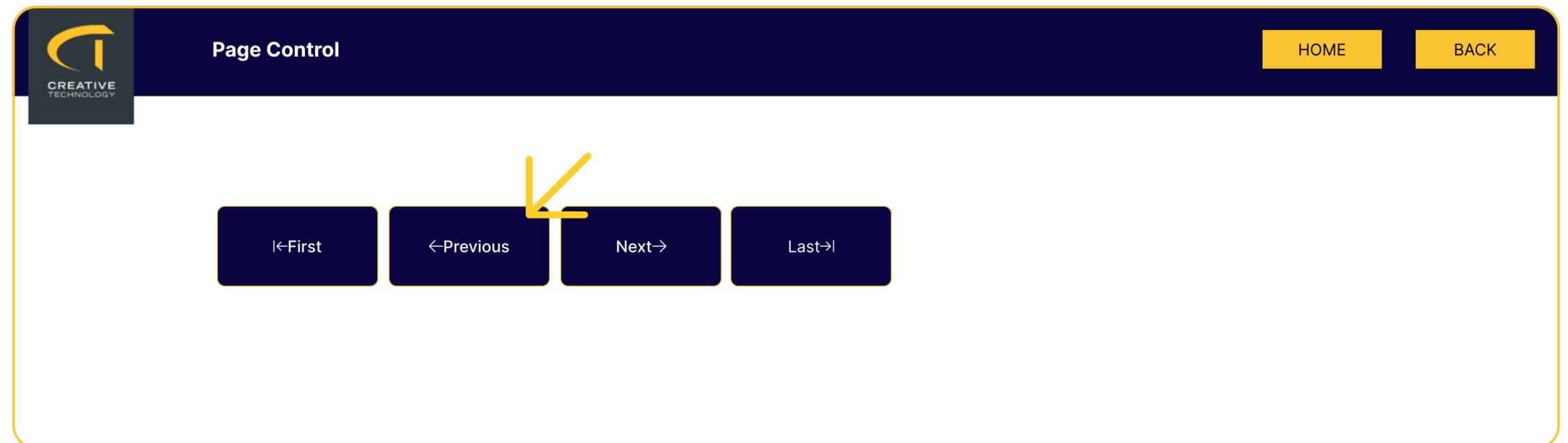
- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height
- Action (First, Last, Next, Previous)
- Show predefined icon (based on action type)

Interaction

Simple



Widgets





Jump to Page

Purpose

Provides a button that navigates directly to a specific page when pressed. Useful for non-sequential navigation, such as jumping to a settings screen or returning to a home page.

Use Cases

- Jumping directly to a dedicated page
- Returning to a home or main menu screen
- Creating custom navigation flows outside of standard page order

Properties

- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height
- Page name to jump to (must match the exact page name)

Interaction

Simple



Widgets

TOUCH CONTROLLER FEATURES HOME

COUNTDOWN	CONTROL	WEBPAGES
PIN PROTECTION	NETWORK INFO	MERCURY
REQUEST ASSISTANCE	EVENT EXAMPLE	DESIGNER

Creative Technology Touch Controllers can be used at any event to make systems easier and more accessible for clients, speakers or volunteers. Select a feature to see how it works. Use the INFO button on each page to get more details



Network Information

Purpose

Displays a popup dialog with real-time network details when pressed. Useful for setup verification, diagnostics, and support.

Use Cases

- Checking live network configuration on the touch device
- Troubleshooting connectivity issues during events
- Providing tech support with quick access to IP/MAC details

Properties

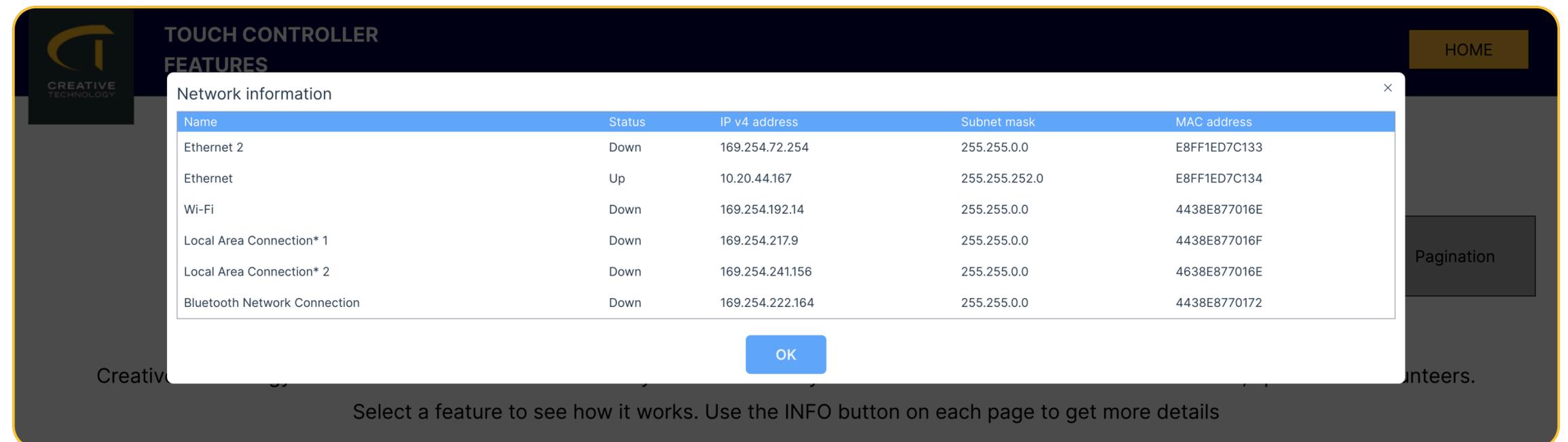
- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction

Simple



Widgets





IFrame

Purpose

Embeds an external website directly into the canvas. Useful for displaying dashboards, monitoring tools, schedules, or other web-based content.

Use Cases

- Embedding tools like dashboards, monitoring systems, or venue info pages
- Displaying third-party data such as weather, agenda, or transport updates
- Hosting local tools from internal networks (e.g. signage controllers)

Properties

- URL to load (must be a reachable and iframe-compatible site)
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction

Simple



Widgets

EMBEDDED WEBPAGE HOME

- This widget allows any webpage that permits iFrame to be added to the controller
 - Here we have used our onsite support website as an example
 - Requires internet connectivity to load external pages

ACCIDENT REPORT

REPORT FAULTY EQUIPMENT

KNOWLEDGE BASE

SITE FEEDBACK



Companion Button

Purpose

Replicates a button from the BitFocus Companion system, allowing users to trigger Companion actions directly from the touch interface.

Use Cases

- Giving presenters or technicians direct access to existing Companion triggers
- Extending Companion control surfaces to wall panels or podiums
- Integrating AV macros or commands into a clean, unified interface

Notes

- Button text, background colour, and text colour are automatically inherited from the linked Companion button
- Appearance updates in real time based on changes in Companion
- Advanced configuration (covered later) allows editing IP address, port, and button grid size for custom Companion setups

Properties

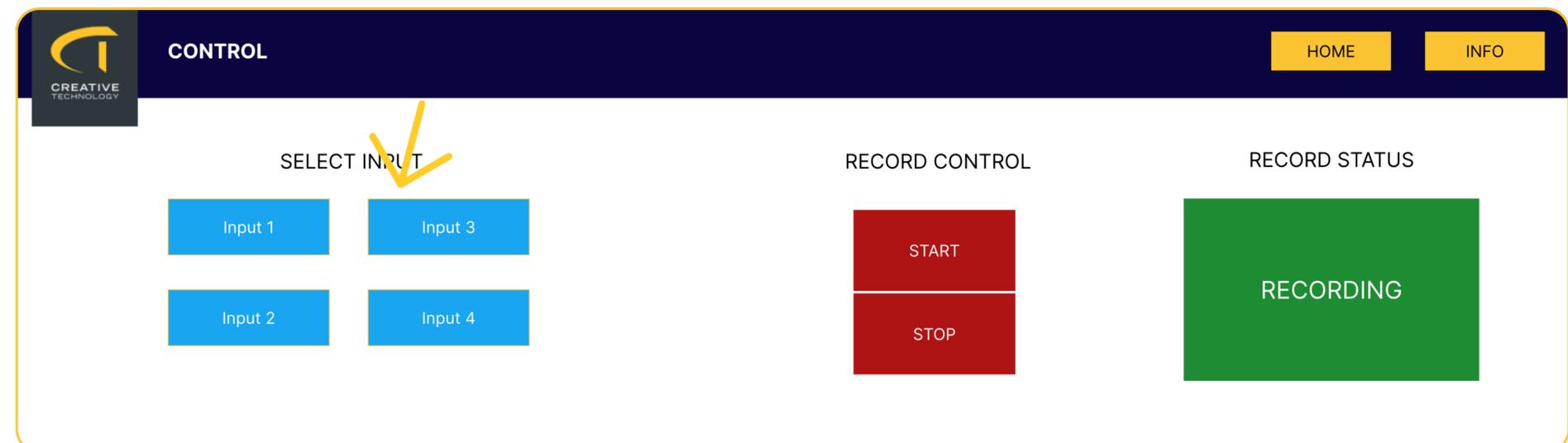
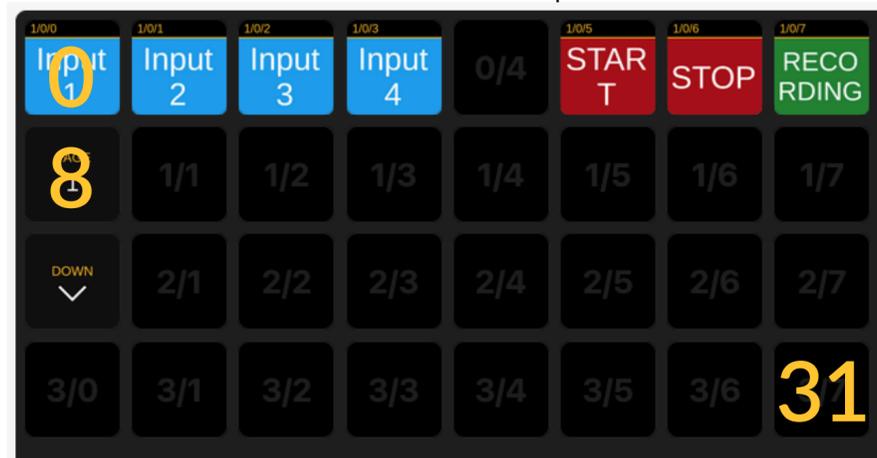
- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height
- Companion Key ID (0 = top left)

Interaction

Simple



Widgets





Companion Variable

Purpose

Allows a user to input text and send it to a BitFocus Companion variable. This enables dynamic updates within Companion-controlled systems based on user-entered values.

Use Cases

- Entering and updating session names
- Customising routing labels, overlays, or status displays in real time
- Triggering logic sequences based on dynamic values

Notes

- Sends the input value to a selected Companion variable
- The variable is registered on the Companion surface and can be mapped to a custom variable
- Additional variables can be configured in the advanced settings
- Enables runtime text-based control of Companion workflows

Properties

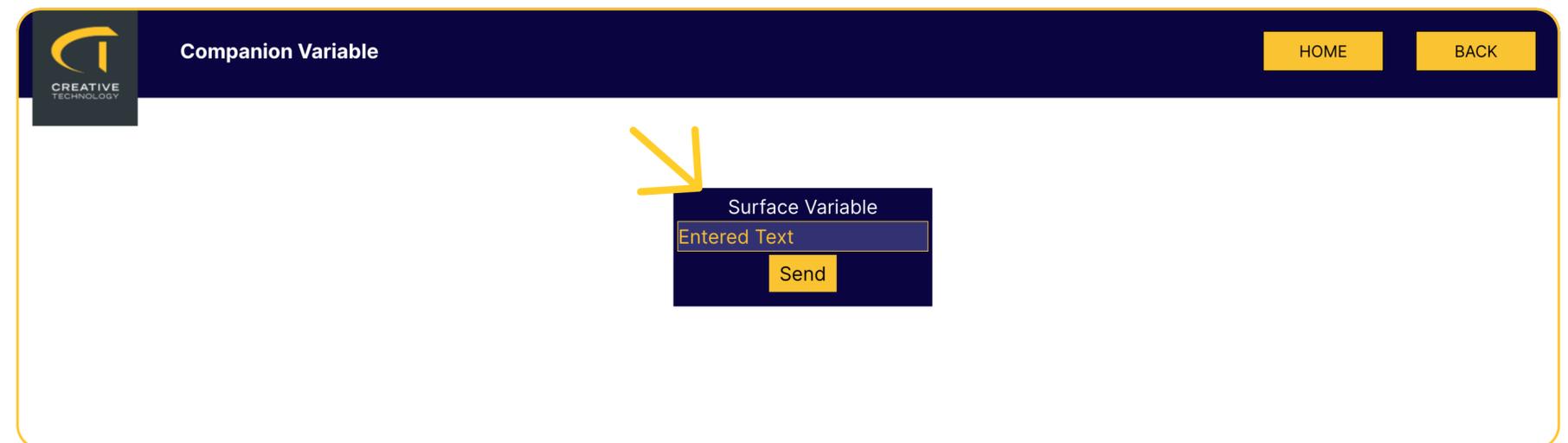
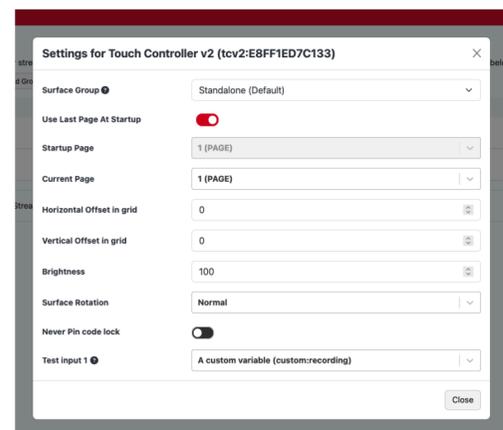
- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height
- Textbox foreground colour
- Textbox background colour
- Send button foreground colour
- Send button background colour
- Variable (select the Companion variable to update)

Interaction

Complex



Widgets





Request Assistance

Purpose

Allows users to quickly request support – either technical or catering – from within the room. Once a request is sent, the responsible team is notified and can respond, with updates shown as live notifications on the touch panel.

Use Cases

- Room-based support requests during conferences or events
- Quick escalation of technical issues or hospitality needs without leaving the presenter's area
- Streamlined communication with support staff from decentralised control points

Interaction

Simple



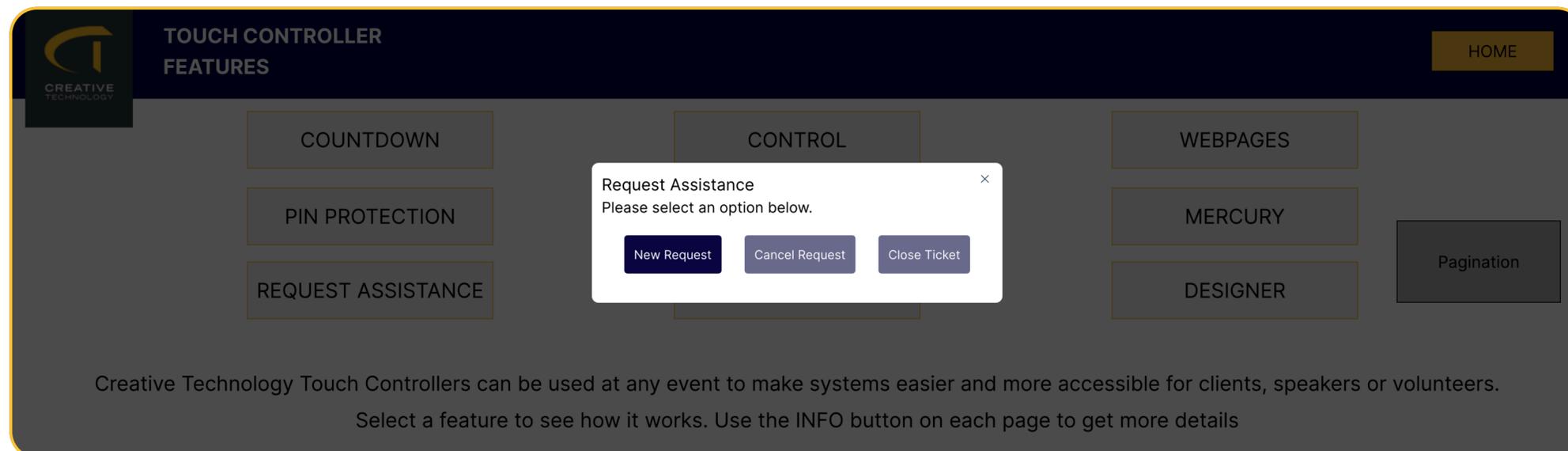
Properties

- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height
- Dialog foreground colour
- Dialog background colour
- Cancel button foreground colour
- Cancel button background colour
- Close ticket button foreground colour
- Close ticket button background colour
- Ticket type (Technical / Catering)

Notes

- Sends a support request to Apollo Insights, currently delivered via WhatsApp (future versions may use Discord)
- Responders can acknowledge the request, triggering a "help is on the way" notification on the touch panel
- Additional comments or resolution notes can be submitted back into Apollo Insights after support is completed
- Future releases may allow the addition of more ticket categories beyond Technical and Catering

Widgets



Creative Technology Touch Controllers can be used at any event to make systems easier and more accessible for clients, speakers or volunteers.

Select a feature to see how it works. Use the INFO button on each page to get more details



Countdown Clock Programmer

Purpose

Allows a user to configure and control a session countdown clock. This includes setting key timings such as total duration, a wrap-up warning, and an end marker. It's primarily used by session chairs, stage managers, or technicians to guide session flow.

Use Cases

- Managing time for speakers or presentations
- Giving presenters and tech staff a clear visual signal of timing stages
- Reusable tool for multi-session schedules in events or conferences
- Overlay countdown displays on DSM's

Properties

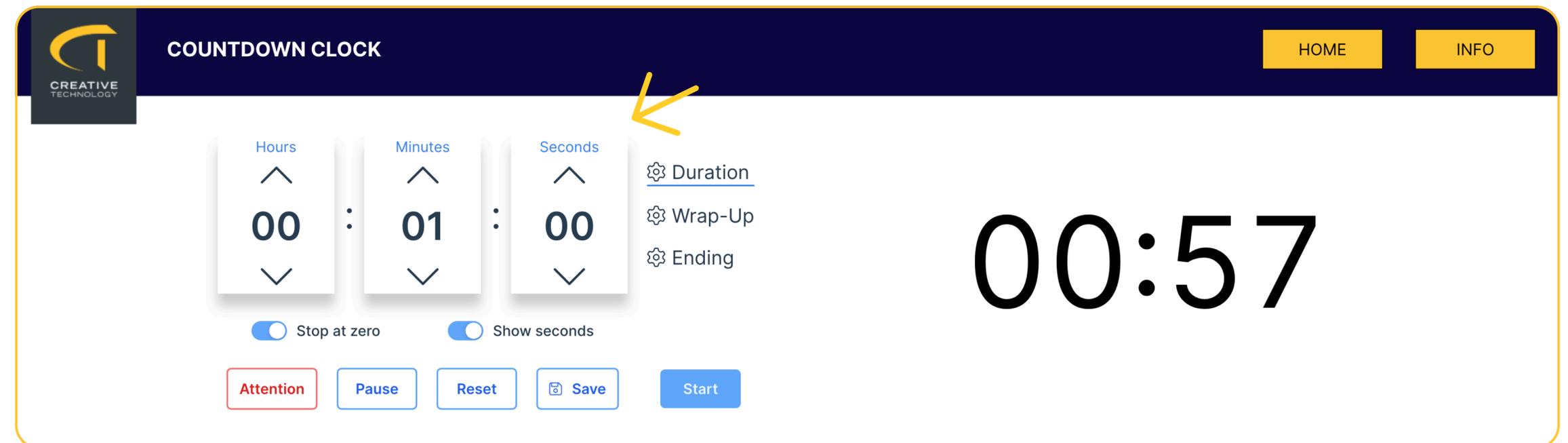
- Border colour & radius
- Position (X, Y)
- Width and Height (aspect ratio locked)

Interaction

Complex



Widgets





Countdown Clock Display

Purpose

Displays the active countdown timer set by the Countdown Clock Programmer widget. It visually communicates the remaining time in a session and dynamically updates its appearance to indicate when wrap-up or ending phases begin.

Use Cases

- Speaker-facing timers on stage or lecterns
- Countdown displays in technical areas for crew awareness
- Multiple synced panels across a venue to show consistent timing information

Properties

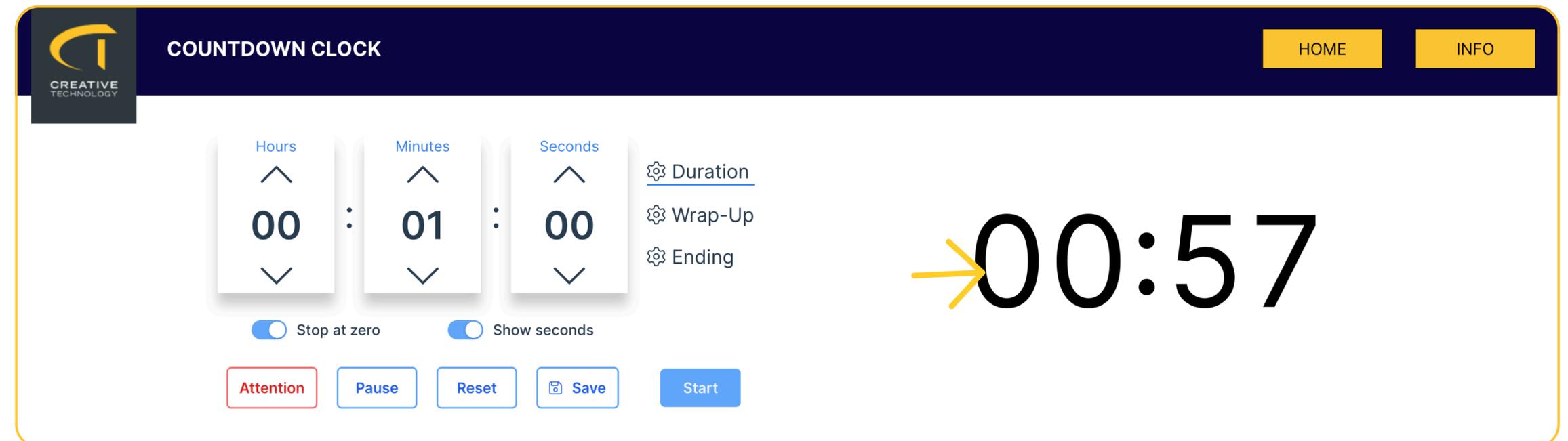
- Border colour & radius
- Position (X, Y)
- Width and Height (aspect ratio locked)
- Wrap-up foreground colour
- Ending foreground colour

Interaction

None



Widgets





Automated Countdown Clock

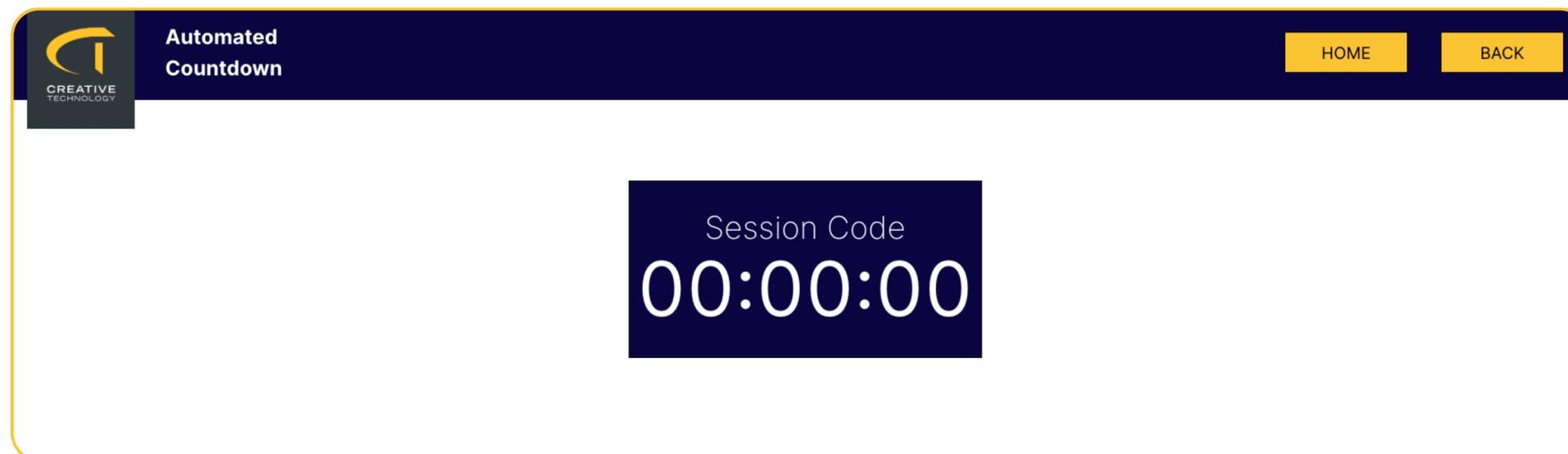
Purpose

Displays a time-of-day clock or a live countdown to the scheduled end time of a session, driven automatically by Apollo Insights. It requires no manual control and adjusts dynamically based on the current session data.

Use Cases

- Automated time tracking in session rooms without manual intervention
- Keeping support teams and presenters aware of real-time session timing

Widgets



Properties

- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction

None



Notes

- Requires the panel to be assigned a valid Apollo Insights Room ID
- If no session is active, the widget shows the current time of day
- When a session starts, it automatically begins counting down to the scheduled end time
- The active session's code is also displayed for context
- Operates entirely from backend session data –ideal for unattended use



Apollo Insights Session Widgets

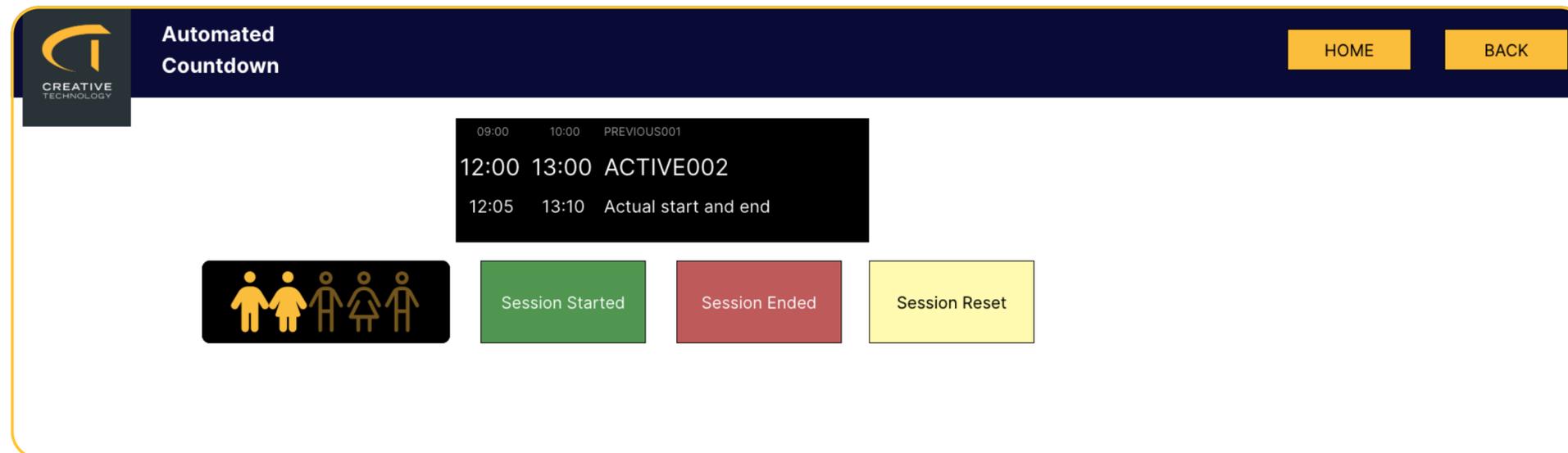
Purpose

This collection of widgets allows touch panels to display and interact with real-time session data from Apollo Insights. They offer visibility of the current and upcoming sessions, manual time logging, and session room occupancy reporting—all linked to the configured Room ID.

Use Cases

- AV Technicians can track session progress live
- Room assistants or stewards can report audience size in real time
- Useful for accurate session timing logs in post-event reporting or troubleshooting

Widgets



Properties

- Text content (Session logging buttons)
- Content colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction



Simple

Widget Functions

- Session Status:
Displays the current session and next upcoming session for the room. Updates automatically from Apollo Insights.
- Room Occupancy:
Allows users (e.g. room stewards or techs) to log how full the room is on a scale from 1 (empty) to 5 (full).
- Session Start/End:
Manually logs when a session begins or ends. This can be used to override or confirm schedule accuracy.
- Session Reset:
Clears the current session timing values.



Issue Reporting

Purpose

Allows users to quickly report issues related to the room, equipment, or sessions. Reports are submitted to Apollo Insights and can be grouped into categories for easier tracking and response.

Use Cases

- Presenters or support staff can raise technical or logistical issues in real time
- Categories help route the issue to the appropriate support team
- Ideal for fast problem tracking during live events or sessions

Properties

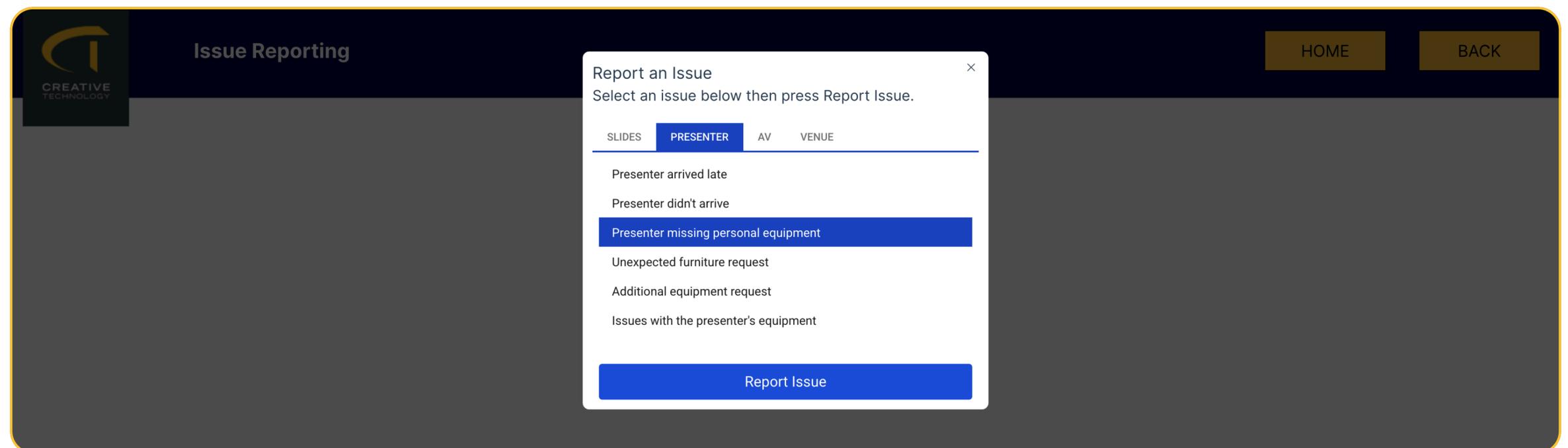
- Text content
- Font size and colour
- Background colour
- Border colour & radius
- Position (X, Y)
- Width and Height

Interaction

Simple



Widgets





Advance Settings

Advanced Settings

Editing advanced settings allows users to fine-tune integrations and behaviour, but must be done with care.

Location of Settings File

Windows:

C:\ProgramData\Touch Controller\API\appsettings.json

Ubuntu:

/etc/touch-controller/api/appsettings.json (or similar, depending on deployment—please verify with the support team)

! *Important: This is a JSON configuration file. Errors may prevent the system from functioning correctly.*

We recommend:

- *Making a backup before editing.*
- *Contacting the Creative Technology UK Software Solutions team if you're unsure.*

BitFocus Companion Configuration

This section defines how the system connects to a Companion instance and optionally registers custom variables:

You may modify:

- *Hostname and Port* — to point to your Companion instance
- *Deviceld* — to set a unique identifier
- *KeysTotal and KeysPerRow* — to match your layout
- *Variables* — to define Companion variables used by widgets



Advance Settings

Apollo Insights Device Token

Apollo Insights requires a device token for proper communication:
This token links the device to your Apollo Insights account.

Note: This setting will become editable from the launcher (F2) interface in a future release.

Applying Changes

After saving changes to `appsettings.json`, you must restart the service. If you're unsure how to restart the service, rebooting the machine is also effective.