Introduction

Overview

The uniCUE touch panel controllers are innovative new kind of product combining touch panel and controller in one box. Everything in the room can be controlled with its integrated control ports. These devices offer cost effective one-box solution for meeting and conference rooms, boardrooms, classrooms, private houses etc. From design point of view these products are fully compatible with cuenium2 touch panel product line. The front case is machined from a single billet of aluminium greatly improving the rigidity of the device.

Active matrix touch screen displays 7” (uniCUE-7-B) or 12” (uniCUE-12-B) diagonal offer resolution 800 x 480 or 1280 x 800 pixels and produce stunning 32-bit (True Color) images. Built-in light sensor automatically adjusts display backlight according ambient light level and motion sensor can resume touch panel from backlight saver mode. The IR sensor located on a front panel can receive IR signal from CUE wireless IR control panels without the need to use any external IR receiver. In addition uniCUEs are equipped with internal IR sensor allowing to capture IR codes.

Wired Ethernet connection provides easy network integration with other CUE units and it allows bi-directional IP control of any manufacturer IP enabled products. The uniCUEs are equipped with following control ports: two bi-directional serial ports RS-232/422/485, four IR /serial outputs (IR signal up to 1.2 MHz), four general I/Os configurable as analog input or digital open collector output and two double-throw contacts relays 24 V.

Both uniCUEs provide video preview right on the touch panel. Streaming or downloaded video can be viewed at any location on the display or in full screen mode. Integrated front panel speakers provide clear audio for streaming media and for internal graphic object feedbacks, voice prompts and other personalized sounds. Built-in microphone allows to use uniCUE as a voice memos recording device. Audio line input and line output located on a rear panel offers the same functionality as integrated microphone and speakers.

Application is created in Cue Visual Composer software where touch panels and controllers are programmed in the same way, which makes it possible to use touch panels as fully functional control units. One universal programming language XPL2 allows to program graphical objects, touch panel layouts, device drivers and other parts of control application. The uniCUEs also offer a web server for setup and configuration provided through a standard web browser.

Models And Accessories

<table>
<thead>
<tr>
<th>Model</th>
<th>Product Code</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>uniCUE-7-B</td>
<td>CS0388</td>
<td>Built-in touch panel controller 7”</td>
<td></td>
</tr>
<tr>
<td>uniCUE-12-B</td>
<td>CS0404</td>
<td>Built-in touch panel controller 12”</td>
<td></td>
</tr>
<tr>
<td>Back Box</td>
<td>CS0409</td>
<td>Back box for built-in models</td>
<td>The same for 7” and 12” models</td>
</tr>
</tbody>
</table>

Features

- Wired built-in touch panel controllers
- 7” or 12” active matrix touch screen display
- Resolution 800 x 480 pixels for 7”, 1280 x 800 pixels for 12”
- Display colors 32-bit (True Color)
- Wired Ethernet communication
- Built-in microphone and speakers, light and motion sensors
- Built-in IR transmitter and receiver, IR capture sensor
- Control ports
  - Bi-directional serial RS-232/422/485
  - IR /serial outputs (IR up to 1.2 MHz)
  - General I/Os
  - Relays NO–C–NC 24 V
  - Aluminium front panel

Programming

Both touch panel controllers have to be programmed using Cue Visual Composer. These models are not compatible with Cue System Director.
Devices can be controlled using IP, serial channels, IR channels, general I/Os and relays. All CUE keypads, keyboards and interfaces can be connected using RS-485 serial ports. In addition uniCUE is fully compatible with other CUEunits such as touch panels and controllers connected via Ethernet.

Following figure describes uniCUE application example.
## Box Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>uniCUE-7-B</th>
<th>uniCUE-12-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch panel controller uniCUE-7-B</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Touch panel controller uniCUE-12-B</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Power supply 30 W</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Power cable</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ethernet cable straight-through</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>IR Adapter /i</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Connector set</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CE declaration</td>
<td>1</td>
<td>1</td>
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<tr>
<td>RoHS declaration</td>
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<tr>
<td>Data Sheet</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cue System Connector Wiring</td>
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<td>1</td>
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</tbody>
</table>
# Specifications

<table>
<thead>
<tr>
<th>Product Name</th>
<th>uniCUE-7-B</th>
<th>uniCUE-12-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>CS0388</td>
<td>CS0404</td>
</tr>
<tr>
<td>Touch-screen display</td>
<td>TFT color active matrix LCD with LED backlit</td>
<td>TFT color active matrix LCD with LED backlit</td>
</tr>
<tr>
<td>Size</td>
<td>7&quot; / 177.8 mm diagonal, wide screen</td>
<td>12.1&quot; / 307.3 mm diagonal, wide screen</td>
</tr>
<tr>
<td>Resolution</td>
<td>800 x 480 pixels (WVGA)</td>
<td>1280 x 800 pixels (WVGA)</td>
</tr>
<tr>
<td>Display colors</td>
<td>32-bit (True Color)</td>
<td>32-bit (True Color)</td>
</tr>
<tr>
<td>Transparency</td>
<td>8-bit Alpha blending</td>
<td>8-bit Alpha blending</td>
</tr>
<tr>
<td>White luminance</td>
<td>400 cd/m²</td>
<td>400 cd/m²</td>
</tr>
<tr>
<td>Contrast ratio</td>
<td>1000 : 1</td>
<td>1000 : 1</td>
</tr>
<tr>
<td>Pixel pitch</td>
<td>0.19 mm</td>
<td>0.204 mm</td>
</tr>
<tr>
<td>Viewing angle</td>
<td>±80° horizontal, ±80° vertical</td>
<td>±80° horizontal, ±80° vertical</td>
</tr>
<tr>
<td>Resistive membrane touch overlay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in sensors</td>
<td></td>
<td>Light sensor for automatic backlight dimming</td>
</tr>
<tr>
<td>Motion sensor</td>
<td></td>
<td>Motion sensor for automatic backlight switch on</td>
</tr>
<tr>
<td>Buttons</td>
<td></td>
<td>Multifunctional for power and programmed functions</td>
</tr>
<tr>
<td>Reset</td>
<td></td>
<td>Reset</td>
</tr>
<tr>
<td>Set factory default</td>
<td></td>
<td>Set factory default</td>
</tr>
<tr>
<td>Memory</td>
<td>256 MB RAM</td>
<td>microSD Card min. 4 GB (upgradable)</td>
</tr>
<tr>
<td>Control ports</td>
<td>2x Bi-directional serial RS-232/422/485, 2x 5-pin connector</td>
<td>2x Bi-directional serial RS-232/422/485, 2x 5-pin connector</td>
</tr>
<tr>
<td></td>
<td>4x IR /serial output (IR up to 1.2 MHz), 4x 2-pin connector</td>
<td>4x IR /serial output (IR up to 1.2 MHz), 4x 2-pin connector</td>
</tr>
<tr>
<td></td>
<td>4x General I/O can be configured as</td>
<td>4x General I/O can be configured as</td>
</tr>
<tr>
<td></td>
<td>• Analog input 0 – 5 V</td>
<td>• Analog input 0 – 5 V</td>
</tr>
<tr>
<td></td>
<td>• Digital open collector output max. 80 mA, 5-pin connector with common ground</td>
<td>• Digital open collector output max. 80 mA, 5-pin connector with common ground</td>
</tr>
<tr>
<td></td>
<td>2x Relay NO-C-NC, 24 V, max. 0.5 A, 6-pin connector</td>
<td>2x Relay NO-C-NC, 24 V, max. 0.5 A, 6-pin connector</td>
</tr>
<tr>
<td>Software</td>
<td>XPL2 runtime for application created in Cue Visual Composer</td>
<td>Admin Web for setup</td>
</tr>
<tr>
<td>Video</td>
<td>Streaming video preview</td>
<td>Streaming video preview</td>
</tr>
<tr>
<td>Audio</td>
<td>Built-in microphone</td>
<td>Built-in microphone</td>
</tr>
<tr>
<td></td>
<td>Built-in speakers</td>
<td>Built-in speakers</td>
</tr>
<tr>
<td></td>
<td>Line in, 3-pin connector</td>
<td>Line in, 3-pin connector</td>
</tr>
<tr>
<td>Wired communication</td>
<td>10/100 BaseT LAN, RJ-45 connector</td>
<td>10/100 BaseT LAN, RJ-45 connector</td>
</tr>
<tr>
<td>Infra-red</td>
<td>IR receiver for IR link</td>
<td>IR receiver for IR link</td>
</tr>
<tr>
<td></td>
<td>IR transmitter for direct control</td>
<td>IR transmitter for direct control</td>
</tr>
<tr>
<td></td>
<td>IR capture sensor</td>
<td>IR capture sensor</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 VDC (+/-20%), 15 W, 2-pin connector</td>
<td>24 VDC (+/-20%), 15 W, 2-pin connector</td>
</tr>
<tr>
<td>Physical</td>
<td>Aluminium front panel</td>
<td>Aluminium front panel</td>
</tr>
<tr>
<td></td>
<td>Back box available</td>
<td>Back box available</td>
</tr>
<tr>
<td>Dimensions</td>
<td>198 x 147 x 60 mm</td>
<td>320 x 225 x 61 mm</td>
</tr>
<tr>
<td></td>
<td>7.8&quot; x 5.8&quot; x 2.4&quot;</td>
<td>12.6&quot; x 8.9&quot; x 2.4&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>1.1 kg / 0.5 lb</td>
<td>1.4 kg / 0.6 lb</td>
</tr>
<tr>
<td>Environment conditions</td>
<td>Operating temperature 10° to 40° C</td>
<td>Operating temperature 10° to 40° C</td>
</tr>
<tr>
<td></td>
<td>Storage temperature 0° to 60° C</td>
<td>Storage temperature 0° to 60° C</td>
</tr>
<tr>
<td></td>
<td>Relative humidity 10% to 90% non-condensing</td>
<td>Relative humidity 10% to 90% non-condensing</td>
</tr>
</tbody>
</table>
Physical Description

Front Panel

- **Motion sensor**
  - The Motion sensor resumes touch panel from Backlight Saver mode. This functionality can be enabled / disabled using On Screen Display or Admin Web.

- **IR receiver**
  - The built-in IR sensor carries the same functionality as irCUE Receiver or irCUE Receiver 485. This means that touch panel can receive IR signal from CUE wireless IR control panels without the need to use any external IR receiver.

- **Light sensor**
  - The Light Sensor automatically adjusts display backlight according ambient light level. This function has to be enabled using On Screen Display or Admin Web.

- **Touch-screen display**
  - Touch-screen display with active matrix color LCD and resistive membrane touch overlay.

- **Speakers**
  - The built-in stereo speakers allows to play sounds stored in the touch panels.

- **Multifunctional button**
  - The multifunctional button shows On Screen Display used for touch panel setting. For more details see chapter On Screen Display.

- **Reset Button**
  - When pressed the reset of the unit is performed followed by operating system boot. A thin screwdriver is needed for press of this button.

Microphone

The microphone is prepared for future use. The functionality depends on a firmware version.
**Rear Panel**

This chapter describes rear panel equipped with all connectors. For more details about connection see chapter Connecting.

![Rear Panel Diagram]

**IR Capture Sensor**

The built-in IR sensor allows to capture IR codes directly by touch panel. For more details see chapter IR Capture.

**IR Transmitter**

IR Transmitter allows to transmit IR codes directly from touch panel. Devices can be controlled directly without controller.

**Audio**

Two 3-pin connectors provide unbalanced audio line input and output.

**Power Output 5 VDC**

This 2-pin provides 5 VDC output.

**Factory Default Button**

When pressed the factory default function is performed. For factory default values see chapter Factory Default and System Default. A thin screwdriver is needed for press of this button.

**Ethernet**

The 10/100 BaseT LAN is a standard network connection using RJ-45 connector. For more details see chapter Connection.

**Power Supply 24 VDC**

Powering of uniCUE is provided by 24 VDC. Use only delivered power supply.

**Control Ports**

Rear panel of uniCUE is equipped with following control ports

- 2x Serial port RS-232/422/485
- 4x IR/Serial port
- 4x General I/O
- 2x Relay 24 V, NO-C-NC contacts
Dimensions

uniCUE-7-B

uniCUE-12-B
Mounting

Back Box

Physical Description

The back box (product code CS0409) provides a steel enclosure for uniCUE-7-B and uniCUE-12-B build-in touch touch panel controllers. It is designed for pre-construction applications.

The back box is equipped with knockouts for cable installation.

Dimensions
Installation into the Furniture or Plasteboard Wall

Steps are as follows

1. Cut out a hole 1 using the template delivered with back box. If you don’t have template, use following dimensions.

2. Break suitable knockout 3 for comfortable stretch of cable.

3. Make sure that the rubber friction rings 8 lean against the supports 4 and supports 4 are in the right position – left down, right up.

4. Insert the back box 2 into the cut-out 1 and take the cables through broken off knockout.

5. Fasten 2x support 4 to the wall using screws 5.

6. Adjust the metal holder 7 as described in the chapter Adjusting the Panel on the Wall.
Installation into Wet Wall

Steps are as follows

1. Chisel out the mounting hole 1 in the wall.
2. Break suitable knockout 3 for comfortable stretch of cable.
3. Insert the back box 2 into the hole 1 and take the cables through broken off knockout.
4. Fix the back box 2 with mortar or plaster.
5. Neaten the visible front part of the back box with stuke or another appropriate material.
6. Adjust the metal holder 7 as described in the chapter Adjusting the Panel on the Wall.
Adjusting Unit On The Wall

If the touch panel does not adhere to the wall perfectly, you can adjust it in the following way.

1. Take the panel out of the back box
2. Loosen the two nuts 6 on the metal holder 7 on the inside of the back box (the one with thorns and fixing tabs).
3. Adjust the holder in a way to make the touch panel adhere neatly to the wall. Use guide ruler as described below.
4. Tighten the two nuts 6.
5. Repeat steps 2 to 4 on the other side of the back box.
Placing Unit Into The Back Box

**Step 1**

Hold touch panel in the upright position and push it into the back box so that the thorns in the back box slide into the grooves in the metal slat of the touch panel.

**Step 2**

This enables you to tilt the panel, which holds in this position, and mount cables.

**Step 3**

If you want to place the panel in the back box, hold it upright and push its bottom part strongly as deep into the back box as possible.

**Step 4**

Then push the upper part of the panel until the two metal catches slide into the fixing tabs.

**Note:**
If the touch panel does not adhere to the wall perfectly, you can adjust it as described in the capture *Adjusting the Panel on the Wall.*
Taking Unit Out

**Step 1**
Insert a thin screwdriver into each of the two little holes on the sides of the touch panel and push until the metal catches get loose.

**Step 2**
Then you can tilt the upper part of the touch panel.

**Step 3**
Hold the panel upright and pull its bottom part out. In this position you can tilt the panel to mount cables.

**Step 4**
If you need to remove the panel out completely, hold it upright, push downwards and pull it out.
Cleaning

You should clean the touch panel screen overlay after each day’s use.

Materials required are
1. Two clean, soft texture cloths (cotton).
2. Spray bottle of cleaning solution without alcohol (window cleaner).
3. Aluminium parts should be cleaned using a special cleaning solution.

Steps are
1. Turn the touch panel off.
2. Spray a small amount of the cleaning solution onto one of the cloths.
3. Clean the touch panel overlay with the damp cloth.
4. Wipe the touch panel overlay with the dry cloth.
Connecting

Rear Panel Overview

- CUEnet (LAN)
- Power 24 VDC
- 2x Bi–directional serial port
- 4x IR/Serial output
- 4x General I/O
- 2x Relay

- Audio line output
- Audio line output
- Output 5 VDC
- Button system default
CUEnet (LAN)

10/100 BaseT LAN Connector

The 10/100 BaseT LAN is a standard network connection 10/100 BaseT LAN using RJ-45 connector.

There is no auto sense, which means it does not recognize straight through cable to cross-over cable. For the direct PC connection it is necessary to use cross-over cable; for the connection to Ethernet switch straight through cable.

The length of the Ethernet cable connecting touch panel to the network must not exceed 100 meters.

Connector pin out

<table>
<thead>
<tr>
<th>RJ-45</th>
<th>Pin</th>
<th>Signal</th>
<th>Cat5 Cable Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>TX_D1+ and PoE</td>
<td>White / Orange</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>TX_D1– and PoE</td>
<td>Orange</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>RX_D2+ and PoE</td>
<td>White / Green</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>White / Blue</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>RX_D2– and PoE</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td>White / Brown</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
<td>Brown</td>
</tr>
</tbody>
</table>

Direct PC Connection

Attach one end of an RJ-45 Ethernet cable to the CUEnet (LAN) port and attach the other end of the RJ-45 Ethernet cable to your computer. Use straight-through cable if your PC supports autosense or crossed-over cable if your PC doesn’t support autosense.

LAN Network Connection

Attach one end of an RJ-45 Ethernet straight-through cable to the CUEnet (LAN) port and attach the other end of the RJ-45 Ethernet cable to your computer.
Windows Local Network Settings

For Windows 7 steps are
2. Click Start.
3. Enter ncpa.cpl to the Search Box and press Enter. Following window is displayed.

Following steps are
1. Right-click on network adapter used for connection with touch panel controller and then right-click and select Properties.
2. Select Internet Protocol (TCP/IP) and click Properties button.

For Windows XP steps are
1. Start Windows XP.
2. Click Start, then click Control Panel choose the option to switch to Classic View.
3. Double-click Network Connections.

3. Select Use the following IP address option. Set IP address to 192.168.1.1 (or other address different from 192.168.1.127 and from 192.168.1.128) and Subnet mask to 255.255.255.0. Leave other options unchanged and click OK.
PWR IN

The uniCUE requires power from an external power supply. The standard CUEadapter /30W is delivered with the unit. Attach the 2-pin connector of the power supply unit to the PWR IN connector located on the rear panel and attach power cable to a power outlet.

Warning: Use any unit only with the power adapter supplied in the product package. Using another power supply may damage the unit.

Connector pin out

<table>
<thead>
<tr>
<th>PWR IN</th>
<th>2-pin 3.5 mm</th>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>Power +24 VDC</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>G</td>
<td>Ground</td>
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</tbody>
</table>

OUT 5 V

Connector pin out

<table>
<thead>
<tr>
<th>PWR OUT</th>
<th>2-pin 3.5 mm</th>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>Output +5 VDC, max. 1 A</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>G</td>
<td>Ground</td>
</tr>
</tbody>
</table>
SERIAL

Overview

These bi-directional serial channels are used for RS-232, RS-422 and RS-485 communication. Maximum speed is 115 200 Bd (bps). Default mode for all channels is RS-232, other modes must be set in programming application. For more details see programming manuals.

RS-232 Mode

Output signal levels for RS-232 are in the −10 V to +10 V range. This is default mode for all channels.

Connector pin out

<table>
<thead>
<tr>
<th>SERIAL RS-232</th>
</tr>
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<tbody>
<tr>
<td>5-pin 3.5 mm</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

RS-422 Mode

This mode must be set in the programming application.

Connector pin out

<table>
<thead>
<tr>
<th>SERIAL RS-422</th>
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<tbody>
<tr>
<td>5-pin 3.5 mm</td>
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<tr>
<td>--------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>

RS-485 Mode

This mode must be set in the programming application.

Connector pin out

<table>
<thead>
<tr>
<th>SERIAL RS-485</th>
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</thead>
<tbody>
<tr>
<td>5-pin 3.5 mm</td>
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<tr>
<td>---------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
IR/SERIAL

This type of port provides:

- Output for infra-red emitters (IR Adapter /i), maximum IR output rate is 1.2 MHz.
- RS-232 serial output (one way), maximum serial data rate is 115 200 Bd (bps), output signal levels for RS-232 are in the -12 V to +12 V range.

The IR outputs and RS-232 outputs can be combined on independent outputs (for example three outputs can be used as IR, five outputs can be used as RS-232).

Connector pin out

<table>
<thead>
<tr>
<th>2-pin 3.5 mm</th>
<th>Pin</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="connector.png" alt="Connector" /></td>
<td>S</td>
<td>Signal</td>
<td>IR/Serial Signal (Output)</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>GND</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Notes

- All pins labelled G are connected together.
- Up to three original infra-red emitters IR Adapter /i can be connected to each output in parallel.
- Up to ten IR Sprayers can be connected to each output in parallel.
- It is not recommended to connect more infra-red emitters of various manufacturers in parallel because the output can be either overloaded or damaged.
GENERAL I/O

General I/O provides analog input as well as digital output. Each General I/O port can be used either as input or as output.

Pull-up resistor 680 ohms is connected to +5 VDC and can be switched on and off for each I/O independently. I/O voltage with pull-up on is approx. +4.3 VDC, because protection diode is connected in series (0.7 V dropdown).

Analog input is rated 0 – 5 VDC. Analog to digital (A/D) converter has 10-bits precision (i.e. 1024 levels).

Digital output can switch max. 24 VDC / 80 mA. Output voltage for output switch on is approx. 0.6 V.

I/O schematic diagram

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Signal</td>
<td>Input / Output Signal 1 – 4</td>
</tr>
<tr>
<td>G</td>
<td>GND</td>
<td>Common ground for all I/Os</td>
</tr>
</tbody>
</table>
**RELAY**

This port provides one isolated low voltage relay. Each relay contact closure is rated 24 V / 0.5 A. Normally Close (NC) and Normally Open (NO) contacts as well as Common (C) contact of each relay can be used. The Normally Close (NC) position is the state of the relay when it is not turned on (energized).

![RELAY Diagram]

<table>
<thead>
<tr>
<th>Relay Contact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>Normal Close</td>
</tr>
<tr>
<td>C</td>
<td>Common</td>
</tr>
<tr>
<td>NO</td>
<td>Normal Open</td>
</tr>
</tbody>
</table>

**AUDIO LINE**

**IN**

This connector provides unbalanced line level audio.

![AUDIO LINE IN Diagram]

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Left</td>
<td>Left channel</td>
</tr>
<tr>
<td>G</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>R</td>
<td>Right</td>
<td>Right channel</td>
</tr>
</tbody>
</table>

**OUT**

This connector provides un-amplified unbalanced line level audio. Connect audio devices, such as an audio amplifier or powered speakers to this connector.

![AUDIO LINE OUT Diagram]

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Left</td>
<td>Left channel</td>
</tr>
<tr>
<td>G</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>R</td>
<td>Right</td>
<td>Right channel</td>
</tr>
</tbody>
</table>
CUEwire Device Connection

Both uniCUEs are compatible with CUEwire devices as keyboards, keypads, sensors etc. Serial ports SERIAL 1 or SERIAL 2 in mode RS-485 can be used for CUEwire connection. Unlike controllers the uniCUE isn’t equipped with 24 V output, that means all CUEwire devices must be powered externally.

See following figure for CUEwire device connection.
Download User Application

Overview

User control application is dedicated to control and it is programmed by Cue Visual Composer programming tools.

Using Cue Visual Composer

Steps are

1. Connect touch panel controller to your computer as described in chapter Connecting / CUEnet (LAN).
2. Run Cue Visual Composer on your PC.
3. Open appropriate project in Cue Visual Composer. It's necessary to have appropriated touch panel controller properly inserted and configured.
4. Use tool bar button Final to open Upload and Export Application dialog box.
5. Be sure your touch panel controller is checked.
6. Use button Upload to start application upload.
7. If touch panel firmware isn't actual it will be uploaded automatically first and then application upload will be finished.
Using Admin Web

Steps are
1. Connect touch panel controller to your computer as described in chapter Connecting / CUEnet (LAN).
2. Run Cue Visual Composer on your PC.
3. Open appropriate project in Cue Visual Composer. It’s necessary to have appropriated touch panel controller properly inserted and configured.
4. Use tool bar button Final to open Upload and Export Application dialog box.
5. Be sure your touch panel controller is checked.
6. Use button Export All... to export application and store it in file *.cvca.
7. Run the Internet browser on your PC and type in the same touch panel IP address as you see in Cue Visual Composer project, window Properties / IP address.
8. Go to page System and check current firmware version. In case there is no actual firmware version in touch panel, upload firmware version that corresponds to firmware version in the Cue Visual Composer project.
9. Go to page Applications and upload application file *.cvca.
10. Start uploaded application using button Start.
IR Capture

Both uniCUE models have possibility to capture IR codes. This is the same functionality as some ipCUE controllers have. Captured IR codes can be used in all types of controllers too.

Steps are as follows
1. Connect the uniCUE to your PC as described in the chapter PC Connection.
2. Arrange IR remoter and touch panel as described below.

3. Start Cue Visual Composer and capture IR codes by standard way.
4. Push Start Capture button in Cue Visual Composer and then press appropriate button on IR remoter.

5. Instructions and messages are displayed on the touch panel and in the Cue Visual Composer.
6. If message “Signal is too weak” is displayed, change position of IR remoter and try again.
## Factory Default and System Default

Every device shipped from the factory is set according to table below, Factory Default column.

When pressed System Default button, the system default function is performed according to table bellow, System Default column. The main purpose of this functionality is to regain connection to touch panel with lost password or unknown IP settings.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Factory Default</th>
<th>System Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>Name</td>
<td>Not changed</td>
</tr>
<tr>
<td>IP settings</td>
<td>Host name</td>
<td>Not changed</td>
</tr>
<tr>
<td></td>
<td>IP address</td>
<td>192.168.1.128</td>
</tr>
<tr>
<td></td>
<td>Subnet mask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td></td>
<td>Default gateway</td>
<td>192.168.1.1</td>
</tr>
<tr>
<td>IP address</td>
<td>192.168.1.128</td>
<td>192.168.1.128</td>
</tr>
<tr>
<td>Subnet mask</td>
<td>255.255.255.0</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Default gateway</td>
<td>192.168.1.1</td>
<td>192.168.1.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNS</th>
<th>Primary DNS server</th>
<th>Not changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary DNS server</td>
<td>Empty</td>
<td>Not changed</td>
</tr>
<tr>
<td>DNS</td>
<td>Secondary DNS server</td>
<td>Empty</td>
</tr>
<tr>
<td>Date and time</td>
<td>Date and Time</td>
<td>Real</td>
</tr>
<tr>
<td></td>
<td>Day, month, year</td>
<td>Not changed</td>
</tr>
<tr>
<td></td>
<td>Hour, minute, second</td>
<td>Real</td>
</tr>
<tr>
<td></td>
<td>Time zone</td>
<td>(GMT+1:00 CET/CEST Belgrade, ..., Prague)</td>
</tr>
<tr>
<td></td>
<td>Use Internet clock</td>
<td>Not</td>
</tr>
<tr>
<td></td>
<td>Primary NTP server</td>
<td>Empty</td>
</tr>
<tr>
<td></td>
<td>Secondary NTP server</td>
<td>Empty</td>
</tr>
<tr>
<td>Applications</td>
<td>Empty</td>
<td>Not changed</td>
</tr>
<tr>
<td>File storage</td>
<td>Empty</td>
<td>Not changed</td>
</tr>
<tr>
<td>System</td>
<td>Firmware</td>
<td>Current version</td>
</tr>
<tr>
<td>Password</td>
<td>Empty</td>
<td>Empty</td>
</tr>
</tbody>
</table>
On Screen Display

Access On Screen Display

The multifunctional button located on front panel shows On Screen Display. Startup Menu is displayed automatically if no application is running.

Startup Menu

The Startup Menu is activated if no application is running. Application button starts downloaded application. On Screen Display button launches menu described below.

Settings

The Backlight Saver will switch off automatically display backlight. Time in minutes can be set by buttons - and +. Time set to 0 means that Backlight Saver is disabled.

LCD Backlight sets display backlight level.

If Adaptive Brightness is switched to Yes, the light sensor automatically adjusts display backlight according ambient light level.

If Motion Sensor is switched to Yes the Motion Sensor resumes touch panel from Backlight Saver mode automatically.

Status

This page shows current status of the touch panel.
**IP Settings**

This page is used for setting the communication parameters for your touch panel. The touch panel uses standard internet protocol (IP) communication parameters. Certain parameters can be reset by the user. On start up, this page will display current IP address. Carefully note this addressing information (and any changes you elect to make to the IP address, subnet mask, or default gateway). This information must be entered into the Cue Visual Composer program written for your specific application. For control systems with more than one unit, a unique IP address must be given to each CUEunit.

For setting please select appropriate field using Edit button and then use numeric keypad.

Be sure to click the Apply button for any changes to become effective.

**Date/Time**

This page is used for setting Date/Time parameters.

The current date and time can be set. For setting please select appropriate field using Edit button and then use numeric keypad.

The time zone box can be selected to enter from the list activated by button Edit.

Rest of the page is used for synchronization of the CUEunit's date and time with an internet clock. Select Yes for Use Internet clock. Next, enter the IP addresses (or complete address name) of the primary and secondary NTP servers.
Applications

This screen is used for selection, start and stop of uploaded applications. All uploaded applications are listed on this page.

Select application and press button Start. A “running flag” denotes the active application. Active application starts automatically after switch on the unit. The running application can be stopped via the Stop button.

Files are uploaded from a personal computer to the touch panel using Cue Visual Composer software or using Admin Web.

Calibration

Use this page for calibration. We recommend use stylus.

Exit

Closes the On Screen Display.

On this page the product name, product code and current firmware version are displayed.
Admin Web

Access Admin Web

Run the Internet browser on your PC and type in the touch panel IP address. Factory default IP address is 192.168.1.128. The default password is empty.

Login

This screen isn’t displayed if password is empty (factory default status).

If password isn’t empty, you have to login at first for operating with your CUEunit via these web pages.

Enter your password into the Password box and click the Login button to enter the CUEunit web pages.

Remember that the password is case sensitive. For changing your password use the Password menu after you are logged in.

Configuration

Identification

Each CUEunit can be identified by a unique identification name. Unique names are most useful in applications requiring more than one CUEunit. This enables programmers and installers to reference CUEunits with logical, user friendly names, like “boardroom,” “lobby,” etc.

To set the CUEunit identity, enter the unique name you wish to use in the Name box.

Be sure to click the Apply button for any changes to become effective!

IP Settings

This page is used for establishing the communication parameters for your CUEunit.

The CUEunit uses standard internet protocol (IP) communication parameters. Certain parameters can be reset by the user. On start up, this page will display the CUEunit’s given Physical address (MAC), Current IP address. Carefully note this addressing information (and any changes you elect to make to the IP address, subnet mask, or default gateway). This information must be entered into the Cue Visual Composer program written for your specific application. For control systems with more than one CUEunits, a unique IP address must be given to each CUEunit.

Some control systems are “stand alone” and not part of a larger network. For such “stand alone” systems, the Host name is optional. However, for control systems that are connected to a larger network, please obtain the Host name from the network administrator, and enter it into the corresponding box. DHCP is not supported in this release.

Be sure to click the Apply button for any changes to become effective!
DNS

This page is used for setting parameters of your CUEunit’s DNS server.

On start up, this page will display the CUEunit’s given Current primary DNS server, Current secondary DNS server. You can reset the primary DNS server and secondary DNS server manually by entering your changes into the appropriate boxes.

DHCP is not supported in this release.

Be sure to click the Apply button for any changes to become effective!

SMTP

This page is used for setting parameters of SMTP server. Set a name or an address and the port of your SMTP server.

The SMTP server and port are used by the XPL2 commands EmailSend and PresetEmailSend.

Be sure to click the Apply button for any changes to become effective!
Date and Time

Current date and time

This page is used for setting the time clock on your CUEunit. The current date, time, and time zone are shown on the Current time line.

The applicable boxes can be selected to enter changes to the

- date: day/month/year,
- time: hour/minute/second.

Be sure to click the Apply button for any changes to become effective!

Time zone

This page is used for setting the time zone on your CUEunit. The current date, time, and time zone, are shown on the Current time line. The time zone box can be selected to enter changes to the Time zone.

Be sure to click the Apply button for any changes to become effective!

Internet clock

This page is used for synchronization of the CUEunit’s date and time with an internet clock. Begin by selecting the check box for Use Internet clock. Next, enter the IP addresses (or complete address name) of the primary and secondary NTP servers. Use the Primary NTP server and Secondary NTP server boxes for this purpose.

Be sure to click the Apply button for any changes to the internet clock to become effective!
Applications

This page is used for uploading compiled Cue Visual Composer programs to your CUEunit.

All uploaded applications are listed on this page, along with their file properties: file name/file size/date. The CUEunit has a generous memory; unused free space is shown at the bottom of this page. CUEunit also permits other service functions like deleting files, downloading programs back to a personal computer, and starting/stoppping specific applications.

A “running flag” denotes the active application. The running application can be stopped via the Start/Stop button. Likewise, a stopped application can be restarted with the Start/Stop button.

Files are uploaded from a personal computer to the CUEunit by selecting the desired application program, and clicking the Upload button. Files are downloaded from the CUEunit to a personal computer by clicking the File name. Files are easily deleted with the Delete button. The button Total stop stops a running application. This application will not be automatically started after reset.

File Storage

The CUEunit’s generous memory can be used as an auxiliary file storage device. This is helpful for storing presets, in archiving electronic manuals, pdf files, and other support documentation. File storage is managed via the file storage page.

A list of existing files, folders, and their properties is shown. To delete a file or a folder, click the Delete button on the corresponding line. To delete all files and folders from the current folder, click the Delete All button.

To create a new folder, enter a name for the new folder, and click the Create button. To upload a file, select the desired file, and click the Upload button.

Note: Files are automatically compressed for the CUEunit’s internal file system. Accordingly, the size of your uncompressed file before storing may not match the decrease of free space shown on the CUEunit.
E-mail

This page is used for setting parameters of e-mail parameters and recipients addresses.

The SMTP server must be set. See the Configuration/SMTP setting.

The sender Name and E-mail are addresses of your CUEunit. The sender Name and E-mail are used by the XPL2 commands EmailSend and PresetEmailSend.

The recipient Names and E-mails are addresses of recipients, where e-mails will be sent using the XPL2 command PresetEmailSend.

Settings

Settings

On this page some display features can be set.

The Backlight Saver will switch off automatically display backlight. Time in minutes can be set. Time set to 0 means that Backlight Saver is disabled.

LCD Backlight sets display backlight level.

If Adaptive Brightness is switched to Yes, the light sensor automatically adjusts display backlight according ambient light level.

If Motion Sensor is switched to Yes the Motion Sensor resumes touch panel from Backlight Saver mode automatically.

On Screen Display

This page serves for setting of On Screen Display functionality.

Type of activation is defined here as well as mode of the On Screen Display. In Advanced mode all functions are available, Basic mode is more safety (for example network settings can’t be changed).

In addition some settings done by On Screen Display can be enabled or disabled.

Calibration

Use this page to start calibration and follow instructions on the touch panel.

For proper calibration use a stylus.
System

Firmware

This page is used for updating the CUEunit firmware. The Current version of firmware is shown. To upload new firmware, select the desired version, and click the Upload button.

Information

The page shows basic information about your CUEunit’s hardware. The CPU type, CPU frequency, and the flash and RAM memory sizes are shown.

Format data area

To completely clear all data and restore factory default settings, click the Format data area button. This will remove all data, including Applications and File storage files. Configuration will be cleared, including IP address, password, and touch-screen calibration values. IP address will be restored to the default 192.168.1.128.

Password

A case sensitive password is necessary to login to the admin web pages. Set a new password via the New password box. You must reenter the password in the Confirm new password box. An error message will appear if the confirmation does not match, in which case you should reenter your password again in both boxes.

Finally, the new password is implemented by clicking the Apply button.
Backup

The page is used for the backup applications, files and folders. The Backup copies all Applications, Application data, File storage and Web storage to the one archive. This archive is saved to the PC. To start the backup process, click the Backup button.

Note: To see the backed-up/restored applications, click the Applications menu. To see backed-up/restored files and folders, click the File Storage menu.

The page is used for the backup of all applications, files and folders.

Note: To see the backed-up/restored applications, click the Applications menu. To see backed-up/restored files and folders, click the File Storage menu.

Restore

READ ALL IMPORTANT NOTES THAT FOLLOW BEFORE USING THIS OPERATION!

The page is used for the restoring of all applications, files and folders. Restore copies of all applications, files, and folders from a backup archive on the PC to their corresponding locations on the CUEunit.

To start the restore process, select the desired backup archive, then click the Restore button. The restore process can take up to 10 minutes, depending on the size of the files being restored.

If you want CUEunit’s settings will be restored too, check the “Restore configuration” box. The CUEunit’s settings are accessible via the Configuration, Date and time and Password menus.

Important note: actual password and IP settings will be restored too. The restore process takes from 1 to 10 minutes. It depends on the sizes of the restored files.

Important note: When restoring files, the running application will be stopped and all applications, files, and folders currently stored in the CUEunit will be deleted! If you want to retain them, use the Backup command before the Restore command.

Note: To see the backed-up/restored applications, click the Applications menu. To see backed-up/restored files and folders, click the File Storage menu.
Reset
To restart your CUEunit, click the Reset button.

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