



WLED

Driver for Control4 — User Manual

Driver file: wled_drivermate.c4z

Driver version: 1006

Requires: Control4 OS 3.3.2 or later

Licensing: DriverCentral or DTI Automation

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WLED — Control4 Driver

DTI Automation · WLED driver for Control4 · driver file `wled_drivermate.c4z`

Brings a WLED LED controller into Control4 as a light: on, off, dimming, colour and colour temperature from the Control4 app, scenes and programming, plus an Extras tab with WLED's effects, palettes, presets and playlists.

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What this driver does

One driver controls one WLED controller, and the whole strip appears in Control4 as one light.

- **A Control4 light.** On, off, toggle and dimming with ramp rates, from the app, keypads and programming. Colour on RGB and RGBW strips, and colour temperature on strips with warm and cool white LEDs.
- **Scenes and On Modes.** The light takes part in Advanced Lighting Scenes, and follows the brightness and colour On Modes set for it in Composer, like any Control4 light.
- **The Extras tab.** Everything WLED adds to a plain light: effects and their palette, speed and intensity, presets, playlists, segments, the nightlight and sync. See [The Extras tab](#).

- **Programming.** Commands that run effects, presets and playlists, picked by name or by number, and variables and events that say what is running. See [Programming](#).
- **Changes from anywhere show up.** A change made in the WLED app, by a button on the controller or by anything else reaches Control4 by itself, usually within about a second, and the light, the Extras tab and the variables follow it.
- **Finds the controller for you.** The driver lists the WLED controllers on the network to pick from, and if a controller later gets a new IP address, the driver finds it at the new one and carries on.

The driver needs Control4 OS 3.3.2 or later.

Setup

1. Add the driver to the project, in the room where the strip is.
2. Point it at the controller, one of two ways:
 - **Type the address.** Enter the controller's IP address in **IP Address**.
 - **Pick it from a list.** A new driver with no IP Address looks for WLED controllers by itself when it loads; the **Discover WLED Devices** action looks again at any time. A few seconds later, open **Discovered Devices** and pick the controller: each row shows its name and its address. IP Address fills in by itself. If the controller is not listed, type its address instead.
3. Within a few seconds **Connection Status** reads **Online**, and Device Name, Firmware Version, MAC Address, LED Count and Light Capabilities fill in. The effect, palette, preset and playlist lists load at the same time.
4. Set the light's ramp rates and On Modes on its Lighting settings in Composer, as for any Control4 light.

Actions

ACTION	WHAT IT DOES
Discover WLED Devices	Looks for WLED controllers on the network and lists them in Discovered Devices, ready to pick.
Refresh Effects and Presets	Reloads the effect, palette, preset and playlist lists from the controller now, for the Extras tab and for programming. The driver also reloads them by itself when the controller's presets or its WLED version change.
Reconnect	Starts the connection to the controller again from the beginning and reads everything afresh.

The Extras tab

Open the light in the Control4 app and choose its Extras. The controls are grouped in sections, the way the WLED app groups them: Effect, Presets, Manage Presets, Segments, Nightlight, Sync and Device. Each control shows the controller's current value as soon as the tab opens, and moves when the controller changes, whoever changed it. A control that does not apply right now is hidden, and comes back when it does. Picking an effect, or Random, also turns the light on if it was off. Changing the palette or any of the effect's settings does not: the light stays as it is, as in the WLED app.

Each list shows the name of what is selected, and is empty when nothing in it is. When two entries in one list have the same name, such as two presets both called Movie, each shows its number after the name, as in Movie (3), so they can be told apart.

Effect

The effect's settings carry the names the WLED app gives them for the effect running, so when an effect with differently named settings starts, the tab redraws once to show the new names.

Each name in the **Effect** list is followed by the symbols the WLED app draws beside that effect, so you can see what an effect is made for before you pick it. The row of the effect running shows them too. They are read from the controller's own effect information, and Solid, which has none in the WLED app either, has none here.

SYMBOL	WHAT IT TELLS YOU
	The effect uses a palette, so the Palette list changes how it looks.
•	0D: the effect works on a single LED.
:	1D: the effect is made for a strip of LEDs.
::	2D: the effect is made for an LED matrix.
♪	Volume-reactive: the effect follows the sound level.
🎵	Frequency-reactive: the effect follows the pitch of the sound.

The sound-reactive effects respond to sound only on a controller set up to listen to it. An effect can carry more than one symbol, for example  • :.

CONTROL	WHAT IT DOES
Effect	The effect running, with its symbols. Solid comes first, then the rest from A to Z.
Palette	The colour palette the effect uses. Shown when the strip has colour and the effect uses a palette.
Palette Preview	A strip showing the selected palette's colours, the way the WLED app previews it. The tab redraws once when the palette changes, to show the new strip. Shown with Palette, for WLED's built-in palettes that have fixed colours. It is hidden for Default, for the palettes made from the light's own colours (marked with * in the list), and for custom palettes saved on the controller.
Speed	How fast the effect runs, 0 to 255. Some effects give this slider another name in the WLED app, such as Cooling for Fire 2012, and Extras uses that name. Shown when the effect has this setting.
Intensity	The effect's intensity, 0 to 255, under the name the WLED app gives it for the effect running. Shown when the effect has this setting.
Custom 1, Custom 2, Custom 3	Up to three more sliders, for the effects that have them, each under the name the WLED app gives it for the effect running. Custom 1 and Custom 2 run 0 to 255, Custom 3 runs 0 to 31. Each is shown only when the effect has that setting.
Option 1, Option 2, Option 3	Up to three on/off switches, for the effects that have them, each under the name the WLED app gives it (Overlay, for example). Each is shown only when the effect has that setting.
Random Effect	Runs an effect picked at random.

Presets

CONTROL	WHAT IT DOES
Preset	Applies a preset saved on the controller.

CONTROL	WHAT IT DOES
Playlist	Starts a playlist saved on the controller.
Next in Playlist	Moves the running playlist on to its next preset. Shown when the controller offers it.

Manage Presets

To keep what the light shows now as a preset, type a name in **New Preset Name** and tap **Save**. To remove a preset or playlist, pick it in **Preset to Delete** and tap **Delete**. Either change also reaches the Preset and Playlist lists, programming, and the light's colour picker (see [WLED presets in the colour picker](#)).

CONTROL	WHAT IT DOES
New Preset Name	The name for the next preset you save, up to 32 characters. Double quotes and backslashes are left out. Leave it empty and the preset is called "Preset" and its number.
Save Current Look	Saves what the light shows now (effect, colours, palette, brightness and segments) as a new preset on the controller, in its first free slot, under the New Preset Name. It appears in the Preset list about a second later, and the name field empties. An existing preset is never overwritten. If all 250 slots are in use nothing is saved, and the driver's log says the controller is full.
Preset to Delete	Every preset and playlist on the controller, each shown with its number, so two with the same name can be told apart.
Delete Preset	Deletes the preset or playlist picked in Preset to Delete from the controller. It leaves the Preset and Playlist lists at once. There is no undo.

Segments

CONTROL	WHAT IT DOES
Target Segment	Which part of the strip the Effect controls and the two segment controls act on: All Segments , or one segment by its name. Shown when the controller has more than one segment.

CONTROL	WHAT IT DOES
Segment Power	Turns the target segment on or off. Shown when one segment is the target.
Segment Brightness	The target segment's own brightness, 0 to 100. Shown when one segment is the target.

Nightlight

CONTROL	WHAT IT DOES
Nightlight	Starts or stops the nightlight, which takes the light to its Target Brightness over the Duration.
Duration (minutes)	How long the nightlight takes, 1 to 255 minutes.
Mode	How the nightlight gets there: Instant, Fade, Colour fade or Sunrise, the same four modes the WLED app offers.
Target Brightness	The brightness the nightlight ends at, 0 to 100.

Sync

CONTROL	WHAT IT DOES
Send Sync	On: changes made on this controller are passed on to the other WLED controllers on the network that are set to receive them.

Device

CONTROL	WHAT IT DOES
Device	The controller's WLED version, its LED count and its name.

CONTROL	WHAT IT DOES
Updates	How changes made outside Control4 reach the driver. It reads "Live (WebSocket)" while they arrive as they happen, or "Polling every N s" while the driver checks the controller every N seconds, the Poll Interval Seconds rate.

WLED presets in the colour picker

Every preset saved on the controller (not playlists) also appears in the light's colour picker in the Control4 app, in the light's own section next to its On and Dim colours, under the preset's name. Tapping one applies the WLED preset exactly as the Preset list in Extras does: its effect and colours, and its brightness and power when the preset holds them. Each swatch shows the colour of the preset's main segment, or a neutral white (4000 K) for a preset with no colour. Swatches are moved very slightly so that no two are identical and none matches the On or Dim colour. The list follows the controller: a preset saved or deleted in Extras appears or disappears about two seconds later. One saved, renamed or deleted in the WLED app follows the next time the controller reports a change, or at once with **Refresh Effects and Presets**. The homeowner's own My Favorites are never touched.

Programming

Commands

On the driver's device commands in Composer programming. A parameter picked by name lists what the controller holds, each entry as *name (number)*. If a list is empty, run **Refresh Effects and Presets** and open the command again.

COMMAND	PARAMETERS	WHAT IT DOES
ActivatePreset	Preset , picked by name	Applies the preset.
ActivatePresetNumber	Number , 1–250	Applies the preset with that number. A playlist's number starts the playlist.
StartPlaylist	Playlist , picked by name	Starts the playlist.

COMMAND	PARAMETERS	WHAT IT DOES
NextPlaylistItem	—	Moves the running playlist on to its next preset.
SetEffect	Effect, picked by name; Settings, Effect defaults or Keep current	Runs the effect on every segment. Effect defaults also loads the effect's own speed, intensity and palette; Keep current leaves them as they are.
SetEffectNumber	Number, 0–255	Runs the effect with that number on every segment.
SetPalette	Palette, picked by name	Sets the palette on every segment.
SetSpeed	Speed, 0–255	Sets the effect speed on every segment.
SetIntensity	Intensity, 0–255	Sets the effect intensity on every segment.
RandomEffect	—	Runs an effect picked at random on every segment.
NightlightOn	Minutes, 1–255; Mode, Instant, Fade, Colour fade or Sunrise	Starts the nightlight for that many minutes, in that mode.
NightlightOff	—	Stops the nightlight.
SetSyncSend	State, On or Off	Turns Send Sync on or off.
SetSegmentPower	Segment, 0–31; State, On or Off	Turns one segment on or off. Segments are numbered from 0, as in the WLED app.

SetEffect, SetEffectNumber and RandomEffect also turn the light on if it was off. SetPalette, SetSpeed and SetIntensity do not, so programming that runs while the light is off leaves it off.

Variables

Read only, always present, and updated whenever the controller reports a change.

VARIABLE	TYPE	WHAT IT HOLDS
CURRENT_PRESET	Number	The number of the preset running, or -1 when none is.
CURRENT_PRESET_NAME	Text	That preset's name, or empty when none is running.
CURRENT_PLAYLIST	Number	The number of the playlist running, or -1 when none is.
CURRENT_EFFECT	Number	The number of the effect on the controller's main segment.
CURRENT_EFFECT_NAME	Text	That effect's name.
CURRENT_PALETTE_NAME	Text	The name of the palette on the main segment.
ONLINE	True/False	True while the controller answers, false while it does not.

Events

The events fire on a change; none fires just because the driver loaded.

EVENT	FIRES WHEN
PresetChanged	The current preset changes, including when no preset is running any more.
EffectChanged	The effect on the main segment changes.

EVENT	FIRES WHEN
PlaylistStarted	A playlist starts.
PlaylistEnded	The running playlist ends or is stopped.
Connected	The controller answers again after being offline.
Disconnected	The controller stops answering.

Properties

In the order Composer shows them. The licence rows come first.

Licence

The driver can be licensed through DriverCentral or through DTI Automation, and **either one is enough**: you only need the one that matches where you bought it. Until it is licensed (or while its trial runs out), the light keeps reporting its state but refuses every command, and **Last Error** says why. New installs get a 30-day trial.

PROPERTY	WHAT IT IS FOR
Activation Method	Where the driver was bought: DriverCentral (default) or DTI . It decides which licence rows below are shown. A wrong choice is harmless: a valid licence from either system keeps the driver working, so if the rows look wrong for what you bought, change it — nothing needs restarting.
Cloud Settings (heading)	Heading above DriverCentral's rows, shown when Activation Method is DriverCentral .
Cloud Status	The DriverCentral licence and account state, in DriverCentral's own words — for example Trial Running, 19 Days Remaining . Read it first whenever the light stops responding on a DriverCentral install. Licences are renewed or assigned at drivercentral.io; the change takes effect with no reload. Read only.

PROPERTY	WHAT IT IS FOR
Automatic Updates	Whether DriverCentral may install new versions of this driver automatically: On , or Off (default) to update by hand.
DTI Activation <i>(heading)</i>	Heading above the DTI Automation rows, shown when Activation Method is DTI .
Activation Key	Where the licence key from DTI Automation is pasted on a DTI purchase. Paste the whole 47-character key; the driver checks it straight away. Leave it empty on a DriverCentral install. The controller needs internet access to check the key.
Activation Status	The DTI activation state, read only: Not activated , Checking... , Trial – N hour(s) left , Activated – confirmed <date and time> , Trial ended – activation key required , Activated for a different controller (ask DTI Automation to reissue the licence for this controller), or Key looks wrong (N characters, expected 47) (paste the whole key again).

Driver

PROPERTY	WHAT IT IS FOR
Driver Version	The build number of this driver, read only. If it does not change after an update, Composer kept the old driver.
IP Address	The controller's address on the network. Type it, or pick from Discovered Devices; the driver updates it if the controller moves to a new address.
Discovered Devices	The WLED controllers the last search found. Picking one fills in IP Address.
Connection Status	Online while the controller answers, Offline with the reason when it does not, or Not configured when IP Address is empty. Read only.
Live Updates	How changes made outside Control4 reach the driver. It reads "Live (WebSocket)" while they arrive as they happen, or "Polling every N s" while the driver checks the controller every N seconds. Read only.
Last Error	The most recent problem, in plain words. Empty when nothing is wrong. Read only.
Device Name	The controller's name, as set in the WLED app. Read only.
Firmware Version	The WLED version the controller runs. Read only.
MAC Address	The controller's hardware address, which the driver uses to find it again at a new IP address. Read only.
LED Count	How many LEDs the controller drives. Read only.
Light Capabilities	What the strip can show: RGB , RGBW or White , with + CCT when it also has warm and cool white. Read only.

PROPERTY	WHAT IT IS FOR
Poll Interval Seconds	How often the driver checks the controller while changes are not arriving live, 2 to 60 seconds. Default 5.
Colour Selection Stops Effect	Yes (default): picking a colour stops the running effect, so the colour shows solid. No : the effect keeps running in the new colour.
CCT Warm Kelvin	The colour temperature of the strip's warm white LEDs, default 2700. It is the warm end of the colour temperature range the Control4 app offers for this light.
CCT Cool Kelvin	The colour temperature of the strip's cool white LEDs, default 6500, and the cool end of that range. If the two Kelvin values are swapped or equal, the driver puts them in order and says what it changed in Last Error.
Log Level	How much the driver writes to the log, from 0 – Fatal to 5 – Trace . Default 2 – Warning .
Log Mode	Where the log goes: Off , Print , Log , or Print and Log . Default Off .