

## Technical note

# Display brightness control with PlugnCast G2

Version 001A\_en

## Introduction

- This document explains how to use a GPIO in order to control the display output brightness of a player with PlugnCast G2.
- The typical use case is to connect a luminosity sensor to control a led display brightness.

## Prerequisites

- Gekkota 3.12.14 (or above)
- Player supporting output brightness control (DMB300 for example)
- Plugncast server 2.50.31 (or above)
- Plugncast Studio 2.50.41 (or above)

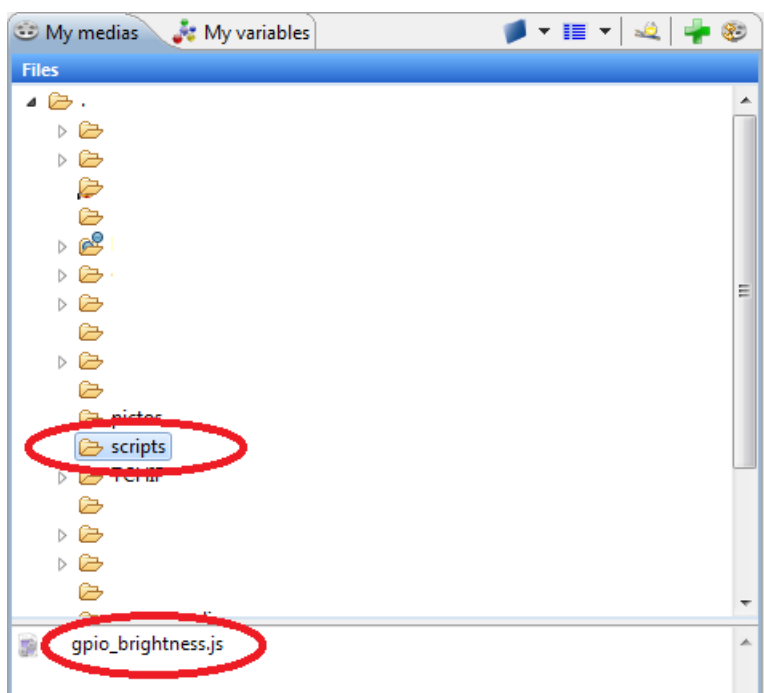
## GPIOs configuration

- In order to configure the player GPIOs, please follow the user guide 'Use of GPIOs - application note' which is explaining how to configure properly the different GPIO (for example: as an input GPIO, with or without debouncing filter...)
- It is advised to check that it is possible to control the display output brightness with ScreenComposer G3

## Use with PlugnCast G2

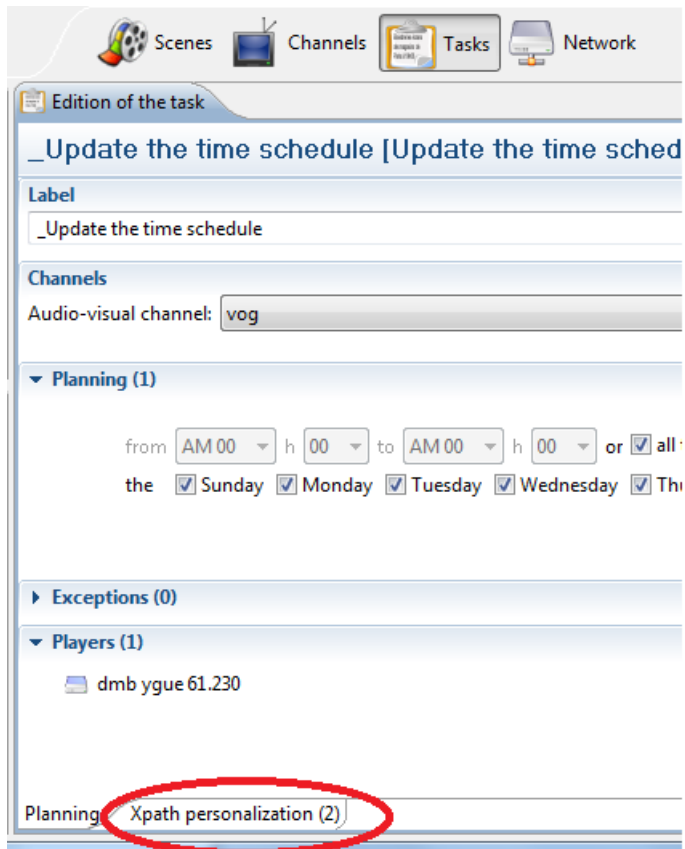
### Script

- PlugnCast Studio has a dedicated interface to control simply the display output brightness. But it is possible to support it by using the script 'gpio\_brightness.js':
  - Open PlugnCast Studio
  - Add this script into a new folder to your medias library (folder name example 'scripts')



## Task configuration

- In order to configure the task 'Update the time schedule' which is permitting to the player to launch the script 'gpio\_brightness.js', use the tab 'Xpath personalization'



Then 2 elements need to be configured. - Script configuration - Script loading configuration

### Script configuration (1st element):

```
##

##### //xpfplayer

##

##### <script xmlns="http://www.innes.fr/2007/XPF10/Language">
// The brightness value (0 to 100) used when the GPIO value is 1
const brightness1 = 40;
// The brightness value (0 to 100) used when the GPIO value is 0
const brightness0 = 100;
// If using a phoenix gpio, set the phoenix number (1 to 6), else comment the next line
const phoenix=1;
// If using the Jack35 gpio, set the constant 'jack35' to true, else comment the next line
//const jack35=true;
</script>

##
```

- The values of brightness1 and brightness0 can be modified if required
- Phoenix connector:
  - the part phoenix=1; defines the GPIO which is controlling the brightness of phoenix connector)
  - Change the phoenix number according to your configuration (ex: phoenix=2;)
- Jack35 GPIO:
  - comment the line which is defining the phoenix number (by inserting double slash character '/' in front of the line to inactivate) and
  - uncomment the line containing jack35=true; (by deleting double slash character '/' in front of the line to reactivate)

### Script loading configuration (2th element):

```
##

##### //xpf:player

##

##### <script src=".medias/scripts/gpio_brightness.js"
xmlns="http://www.innes.fr/2007/XPF10/Language"/>

##
```

- The part ".medias/scripts/gpio\_brightness.js" is the relative path\_file name of the script (PlugnCast G2).

**WARNING : Please ensure that the 2 elements are in the position ‘Add a note in the following location:’ else the script can not work properly**

- This is an example of final xpath personalization rendering:

The screenshot shows a software interface titled "Edition of the task". Below the title bar, there is a section header "\_Update the time schedule [Update the time schedule]". Below this, there are two identical forms, each titled "Add a note in the following location:". Each form has a text input field containing "//xpf:player" and a large text area for content. The first form's content area contains a script for gpio brightness control. The second form's content area contains a script for gpio brightness control with a relative path.

**Form 1 Content:**

```
<script xmlns="http://www.innes.fr/2007/XPF10/Language">
// The brightness value for gpio to 1
const brightness1 = 40;
// The brightness value for gpio to 0
const brightness0 = 100;
// If usign a phoenix gpio, set the phoenix number (1 to 6), else comment the line
const phoenix=1;
// If using the Jack35 gpio, set the constante 'jack35' to true, else comment the line
//const jack35=true;
</script>
```

**Form 2 Content:**

```
<script src=".medias/scripts/gpio_brightness.js" xmlns="http://www.innes.fr/2007/XPF10/Language"/>
```

At the bottom of the window, there is a tab labeled "Planning" and a sub-tab labeled "Xpath personalization (2)".