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)
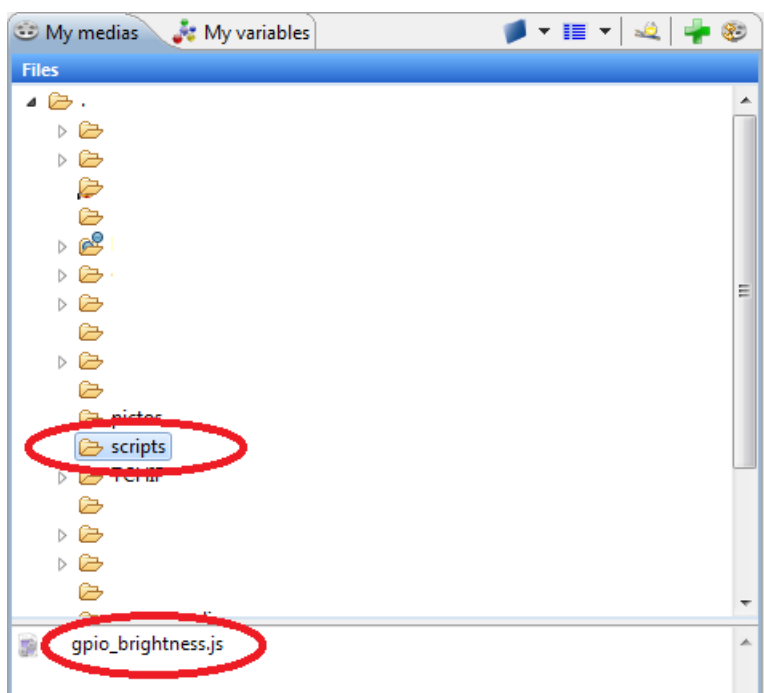- Plugncast Studio 2.50.41 (or above)

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
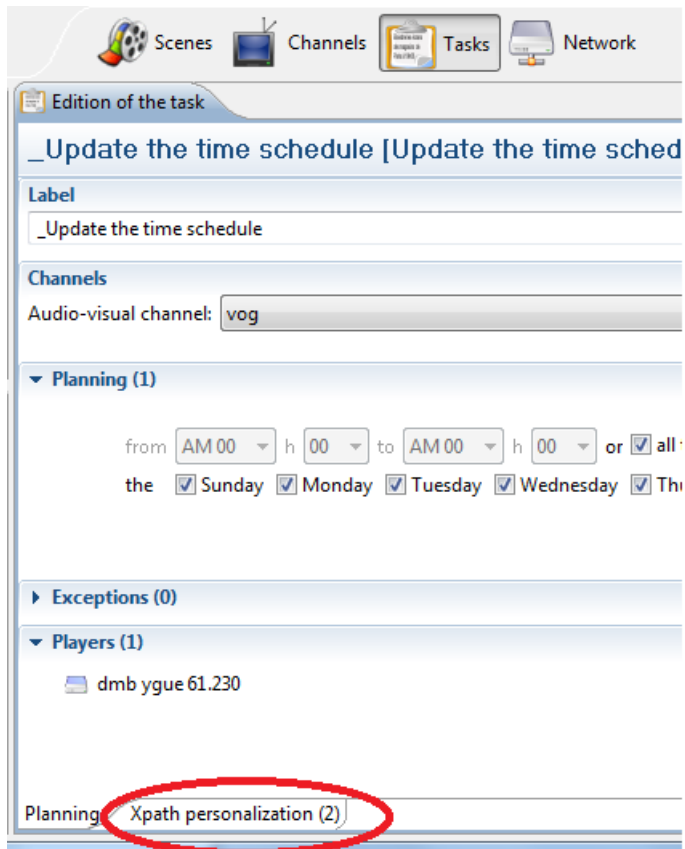
Use with PlugnCast G2

Script

- PlugnCast Studio has to 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):

##

//xpf:player

##

<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: