Documentation for PoliceSmartRadio by Albo1125

Last Revised for version 1.2.0.0.
Please review the licence agreement before using.

Contents

What is Police SmartRadio?

Put simply, you to do most common tasks an officer does from a radio by selecting buttons. It has a few buttons of its own (e.g. plate & ped check), but also allows other plugins to add buttons to the smartradio. For example, Arrest Manager adds a Tow Truck button to the smartradio, which, when selected, calls a tow truck using Arrest Manager. Police SmartRadio's power lies in its customisability and compatibility. It also supports Vocal Dispatch integration.
A full **video** showcasing the features indepthly can be found here: https://youtu.be/Q40JOBpXqjM You are advised to watch it so you can maximise Police SmartRadio's potential in your own game.

Installation

Intended to be used in conjunction with GTA5 1.0.1011.1-1.0.1604.1, Albo1125.Common 6.6.3.0, LSPDFR 0.4, RAGEPluginHook 0.51 or higher and Traffic Policer 6.13.6.0 or higher.

Video Installation, First Time Setup & Customisation Tutorial (Recommended):
https://youtu.be/aJPA_nIEZxo

Part 1: Plugin Installation.

1. Install the required dependencies as listed above.
2. Copy and paste the entire contents of this download's Grand Theft Auto V folder into your own Grand Theft Auto V folder. Replace and merge all files if prompted by Windows.
3. Configure the INI files in Plugins\LSPDFR\PoliceSmartRadio\Config to your personal liking (you may want to try the default settings first).

Part 2: First Time Launch.

4. Load LSPDFR using RAGEPluginHook and go on duty.
5. You will get numerous prompts asking if you want to add a new button to an xml file.
    a. If you wish to enable the specified button for that particular XML file (InVehicle or OnFoot), press 1. If not, press 2.
    b. You can always change this later yourself in the XML files manually if you change your mind.
6. After completing these prompts, LSPDFR will reload.

Part 3: Further use

7. Go on duty with Police SmartRadio again as normal.
8. If a plugin ever attempts to add a new button for the first time, complete Part 2 for that particular button again.

All sections from here on are optional. You don't need to read/follow them to use PoliceSmartRadio – they only provide customisation and further useful information.

Customising your ButtonSetup XML files

You are able to customise your Button Setups from the XML files in the following folder: Grand Theft Auto V\Plugins\LSPDFR\PoliceSmartRadio\ButtonSetup. If this folder doesn’t exist yet, please follow the Installation steps as explained above.

The buttons are shown ingame in the order entered inside the XML file. When you are on foot, the setup from OnFoot.xml is used. When you’re in a vehicle, the setup from InVehicle.xml is used.
If a button is not currently deemed useful by the plugin that controls it, it will be hidden and the buttons will cascade (this can be disabled in the GeneralConfig.ini file).

<Button> tags will automatically be added if a plugin tries to assign itself to a button. You can choose whether to enable that button or not yourself.
You can add as many <Button> tags as you like, they'll be sorted into pages based on the value in the DisplayPositioning.ini file.
The <Plugin> value MUST correspond to the plugin name assigning an action to the button (i.e. its file name minus its extension, typically .dll). It also determines which folder the textures are loaded from (see <Name> explanation).
The <Name> value MUST correspond to the name of a png file in either the PoliceSmartRadio/Display/On/Plugin or PoliceSmartRadio/Display/Off/Plugin folders, where Plugin is replaced by the value of <Plugin>.
The <Enabled> values MUST be either 'true' or 'false' (without quotation marks). It determines if the button is enabled ingame. If disabled, the button is not added to the SmartRadio.

Any button can be added to the SmartRadio using the XML files if there is a texture available for it in the Interface. However, it will not have any effect when selected unless a plugin assigns itself to the button.

Customising the SmartRadio Interface Placement

You can edit the placement and size of your SmartRadio Interface ingame. To do this, press LCtrl Lshift Z and follow the instructions.

Creating your own SmartRadio Interface

Customising the UI textures can be done via the files inside the Plugins\LSPDFR\PoliceSmartRadio\Display folder. The textures are located inside the On and Off folders, and the UI positioning settings are located inside the DisplayPositioning.ini file.

Customising the interface

You are able to change the images used to create the UI inside Display\On and the Display\Off folders, and therein inside folders matching the name of the Plugin that should control them (see the XML section). The texture in the On folder is used if the button is currently selected. The texture in the Off folder is used if the button is currently deselected.

The Background.png file is used as the background of the SmartRadio interface, while the buttons inside the Off and On folders are put on top of the background to create the full interface.
The files must be PNG files. While experimenting with the buttons, I recommend setting the AlwaysDisplayButtons setting in the GeneralConfig.ini to true so all buttons are always displayed.

You are able to exclude various files from the On/Off folder to disable a button in either its on or off state. E.g. if you do not want the Tow button to have a texture if the Tow button is not selected, simply delete Tow.png from the Off folder. If you only want it hidden if Tow is selected, delete Tow.png from the On folder. There must be either an On or Off texture, or both, if a button is to be taken into account by PoliceSmartRadio.
You do not have to worry about the size or dimensions of your customised images – this is all handled by the user’s DisplayScalingFactor setting in the UIConfig.ini file and PoliceSmartRadio’s advanced Interface rendering technique.

Customising the Interface’s Button Positioning

The settings inside DisplayPositioning.ini must likely be edited if using a custom SmartRadio Interface.
You can specify the number of buttons per page your Interface supports, and PoliceSmartRadio will automatically adjust itself accordingly. You must specify at least so many Button Offsets. E.g. if you have 2 buttons per page, you must have [Button1] and [Button2] specified with their X and Y offset settings. If you do not specify enough Button Offsets, PoliceSmartRadio will not load.

All offsets are relative to the starting coordinates (0,0) of PanelBlank.png. It is therefore recommended you use a programme like Photoshop, put all your buttons over your Background.png as layers and read off each button’s coordinates relative to the top left of Background.png. These values (X and Y) must then be entered as XOffset and YOffset for each individual button to make sure the layout is as expected.

X is horizontal ---, Y is vertical |. Check image below for further clarification.

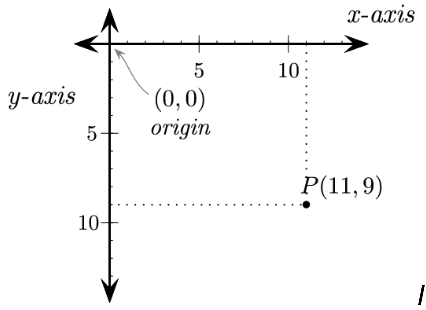

Image: www.programarcadegames.com

Using PoliceSmartRadio's API to assign actions to buttons

To use PoliceSmartRadio's API, you must first follow my general guide for using Albo1125's APIs. This can be found here: http://www.lcpdfr.com/forums/topic/60902-using-albo1125s-apis/

A wrapper class is already included inside the API Reference-Developers only folder.

Use the AddActionToButton method to add actions to buttons for your plugin. Please do so a few seconds after your plugin loads (GameFiber.Sleep(3000) in a new fiber) rather than waiting until the button becomes relevant – read on to discover how to hide the button when not relevant. The waiting beforehand gives PoliceSmartRadio the chance to initialise itself and to get ready – if it is not ready when the API method is called, it will have no effect.

You can only add actions to buttons whose plugin name matches that of your assembly minus its extension. E.g. if I wanted to add an action to the 'tow' button from Arrest Manager.dll, there must be a <Button> in the ButtonSetup XML files whose <Name> attribute is equal to 'tow' and whose <Plugin> attribute of must be equal to 'Arrest Manager'. As a developer you do not need to worry about this being present - this is all handled by PoliceSmartRadio's API. If it is not present, it is added and the user is asked whether they want to enable it or not.

For the previous example's button to actually show up on the interface, there must also be a texture inside the 'Display\On\Arrest Manager' and/or 'Display\Off\Arrest Manager' folder whose file name is 'tow.png' (see Creating your own SmartRadio Interface).

If a button is pressed by the user, the action you passed to AddActionToButton is called.

An optional but **highly recommended** thing to do is to use the overload with the Func<bool> parameter of AddActionToButton. This function will be called often, so please make it as light weight as possible.
If this function returns true at a particular moment, the button is shown on the interface. If the function returns false at a particular moment, the button is hidden from the interface and the remaining buttons cascade.
Please note that this should not be seen as a 'safeguard' before your actual action is called – make sure to do the appropriate checks in the action itself. The user can choose to always show all buttons on the Interface in their config.