

SwitchBoard

API Reference

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History

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|  |  |  |  |
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Table of Contents

1. Introduction 4

1.1 Scope 4

1.2 Case sensitivity 4

1.3 Acronyms, Abbreviations and Terms 4

1.4 Standards 4

1.5 References 4

1.6 Open Issues 5

1.7 Limitations 5

2. RemoteControl Plugin 6

2.1 Configuration 6

2.2 Key Mapping File 6

2.3 Application Programming Interface (API) 7

2.3.1 General information 7

2.3.2 Device actions 7

2.3.3 Key actions 8

2.3.4 Key mapping actions 8

2.4 Events 9

2.5 JSON definitions 9

2.5.1 General information 9

2.5.2 Codes for key actions 10

# Introduction

## Scope

This document describes the Plugin Switchboard API interface. This plugin can be configured to be loaded and executed in the WPEFramework and offers automation on lifetime management. It allows for automatic management of 1 plugin out of a group of N. For details on the WPEFramework API, refer to: [WPEF]

## Case sensitivity

All identifiers on the interface described here are case-sensitive. E.g. an id known in the plugin as 'C0FFEE' is not the same as 'c0ffee'.

All keywords, entities, properties, relations and actions should be treated as case-sensitive.

## Acronyms, Abbreviations and Terms

The next list provides an overview of acronyms and abbreviations used in this document and their definitions.

|  |  |
| --- | --- |
| **Acronym** | **Definitions** |
| API | Application Programming Interface |
| JSON | JavaScript Object Notation |

Below terms are listed with their definitions, as used in this document.

|  |  |
| --- | --- |
| **Term** | **Definitions** |
| Callsign | The callsign is the name given to an instance of a plugin. One plugin can be instantiated multiple times, but each instance the instance name, callsign, must be unique. |

## Standards

Date time formats between the systems shall be in UTC time and W3C (ISO 8601 profile) formatting [ISO 8601], e.g.: 2004-11-05T13:15:30Z. This way time discontinuities can be avoided due to daylight savings. Note that all interfacing systems must decode/encode the date time to the correct local time.

Languages used in the WPEFramework will be conform [ISO 639-1] using two letter language codes. If WPEFramework encounters a language code it does not recognize, it will use ‘xx’ instead. For a list of available two letter ISO language codes, please visit:  
<http://www.loc.gov/standards/iso639-2/php/code_list.php>

## References

This section lists the references made in this document:

|  |  |
| --- | --- |
| [WPEF] | WPEFramework API Reference  <https://github.com/WebPlatformForEmbedded/WPEFramework> |
| [HTTP] | Hypertext Transfer Protocol  <http://www.w3.org/Protocols> |
| [ISO 8601] | Date and time format  http://www.iso.org/iso/date\_and\_time\_format |
| [ISO-3166] | Country code specification  <http://www.iso.org/iso/country_codes.htm> |
| [ISO-639-1] | Language code specification (Alpha-2 code)  <http://www.loc.gov/standards/iso639-2/php/code_list.php> |
| [JSON] | JavaScript Object Notation  <http://www.json.org> |
| [URLENC] | URL Encoding  <http://www.w3schools.com/tags/ref_urlencode.asp> |

## Open Issues

This is a list of open issues that needs to be resolved:

* This document is still a work in progress.

## Limitations

The information described in this document is preliminary and subject to change in the future.

Legend:

****

**Be aware of:** implementation choice is needed or side-effect needs to be handled.



**Implementation advice:** Guide line for implementation mostly related to performance.

# SwitchBoard Plugin

## Overview

This plugin is configured to manage a group of plugins. Within this group, only 1 plugin can be active. Via the RESTfull API a plugin (callsign) from the group can be requested to activate. The plugin will make sure that any other plugin in the configured group that is active, is first deactivated.

The plugin is monitoring the status of all the plugins in the group. If one of the plugins is deactivated, crashes, shutdown by monitor, or simple deactivated, the plugin indicated as default will be started.

## Configuration

|  |  |
| --- | --- |
| Callsign | [string] the instance name for the plugin. Default: SwitchBoard. |
| classname | [string] SwitchBoard |
| Locator | [string] libWPEFrameworkSwitchBoard.so |
| autostart | [bool] should the remote controller plugin be instantiated at the moment the WPEFramework is starts up. |
| configuration | [JSON] JSON object specifying the exact configuration for this plugin. See the next paragraph for details. |

Configuration of the SwitchBoard:

|  |  |
| --- | --- |
| Default | [string] the callsign of the plugin to be activated in case nothing is active. |
| callsigns | [JSON] array of callsign strings. Each string identifies a plugin that belongs to this group. |

## Application Programming Interface (API)

### General information

Using this method, the names of all available devices, the metadata of specific device can be retrieved from the plugin.

|  |  |
| --- | --- |
| Request: | GET /Service/SwitchBoard |
| Success: | HTTP/1.1 200 Group specification  { group } |

### Actions

Using these methods, the metadata of specific device can be retrieved from the plugin or the pairing mode of device (if applicable) can be activated.

|  |  |
| --- | --- |
| Request: | PUT /Service/SwitchBoard/<callsign> |
| Success: | HTTP/1.1 200 Successful switch |
| Failure | HTTP/1.1 304 Switch did not succeed. |

## Events

Events are not applicable for SwitchBoard plugin.

## JSON definitions

### General information

group

|  |  |
| --- | --- |
| default | [string] callsign of the plugin that should be activated in case there is no active plugin in the group. |
| callsigns | [JSON] array of strings. Each string represent the callsign of a plugin that belongs to the switch group. |