

Snapshot

API Reference

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History

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# Introduction

## Scope

This document describes the Plugin Snapshot API interface. This plugin can be configured to be loaded and executed in the WPEFramework and offers user input functionality on the platform. For details on the WPEFramework API, refer to: [[WPEF]](https://github.com/WebPlatformForEmbedded/WPEFramework/blob/master/doc/WPE - API - WPEFramework.docx).

## 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 |
| UTC | Coordinated Universal Time |

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. |
| Proxy | An object in one process space representing the “real” object in another process space. The Proxy takes care of marshalling the parameters. |
| Stub | An object in the process space that contains the actual object. The stub takes care of un-marshalling the request from the Proxy and executes the call, on behave of the Proxy object, on the real object |

## Standards

Date time formats between the systems shall be in UTC time and W3C ([[ISO-8601]](http://www.iso.org/iso/date_and_time_format) profile) formatting [[ISO-8601]](http://www.iso.org/iso/date_and_time_format), 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-639-2]](http://www.loc.gov/standards/iso639-2/php/code_list.php) 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: [[ISO-639-2]](http://www.loc.gov/standards/iso639-2/php/code_list.php).

## References

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

## 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.

# Snapshot Plugin

## Snapshot image

The Capture API will return PNG image which is based on RGBA pixel formation.

## Configuration of Snapshot

|  |  |
| --- | --- |
| callsign | [string] the instance name for the plugin e.g Snapshot. |
| classname | [string] Snapshot. |
| locator | [string] libWPESnapshot.so |
| precondition | [string] Graphics |

## Supported Platforms

### Raspberry PI

This plugin uses Dispmanx which is the windowing system of Raspberry PI. The capture functionality of Dispmanx is utilized to capture the current framebuffer. It provides the composition of video and graphic layers as a snapshot.

### Broadcom Nexus

On Nexus based platforms, this plugin captures graphic layer by fetching the current framebuffer of graphic layer.

## Application Programming Interface (API)

### General information

Using this method to retrieve current status of plugin.

|  |  |
| --- | --- |
| Request: | GET /Service/Snapshot/ |
| Success: | HTTP/1.1 200 OK Plugin is up and running |
| Failure: | HTTP/1.1 200 OK Method not allowed |

### Capture action

Using this method to retrieve a capture of framebuffer

|  |  |
| --- | --- |
| Request: | POST /Service/Snapshot/Capture |
| Success: | HTTP/1.1 202 <capture\_device> |
| Failure: | HTTP/1.1 212 Plugin is already in progress  HTTP/1.1 212 Could not create a capture on <capture\_device> |

## Events

Events are not applicable for Snapshot plugin.

## JSON definitions

There are no JSON objects applicable for Snapshot plugin.