AlphaHooks Documentation

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This is the documentation of **AlphaHooks**.

Note: This software is still in the planning stage.

CHAPTER 1

Contents

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1.2 Installation

AlphaHooks can currently be only installed from source. The steps are pretty straightforward.

AlphaHooks only supports Python versions 3.5 and later. Download the latest version of Python.

If it's already installed, check if you have the correct version using one of these commands.

```
python --version
py --version
```

Make sure you have the latest version of `pip` installed using one of these commands.

```
pip -V
python -m pip -V
```

1.2.1 Installing from source

Requirements

AlphaHooks needs these packages to work properly.

- PyQt5>=5.9
- qscintilla>=2.10.1
- json_config>=2.0.1
- Sphinx>=1.6.3

Installation

Grab the latest version from Github.

```
git clone https://github.com/AlphaHooks/AlphaHooks.git
```

Change into the directory and install with `pip`.

```
cd AlphaHooks
pip install .
```

Run AlphaHooks

```
python AlphaHooks/main.py
```

1.2.2 Running directly

Note: This will not work until the first Python Pre-Alpha is released.

Installing from source is not required. Installing the requirements and just running `main.py` will work fine.

```
pip install -r requirements.txt
python AlphaHooks/main.py
```

1.3 Contributing

1.3.1 Reporting Bugs and Requesting Features

1.3.2 Developer's Guide

Setting Up

Application Structure

Labels

Workflow

Writing Code

Code Conventions and Style

Writing Tests

Writing Documentation

1.4 AlphaHooks

1.4.1 AlphaHooks package

Subpackages

AlphaHooks.library package

Module contents

AlphaHooks.widgets package

Subpackages

AlphaHooks.widgets.console package

Subpackages

AlphaHooks.widgets.console.display package

Submodules

AlphaHooks.widgets.console.display.python module

class AlphaHooks.widgets.console.display.python.**PythonDisplay**(*ui*, *config*, *parent=None*, ***kwargs*)

Bases: PyQt5.QtCore.QObject

change_running_state(*state*)

prompt(*multi_line*)
Checks and displays the current prompt in console_prompt.

Parameters **multi_line** – Can be True or False for the defined prompts

send_console_input()
Push the input to the interpreter where it is run.

send_console_log(*string*)
Insert the output into console_log and automatically scroll the scrollbar.

Parameters **string** – output from the interpreter

send_console_source()
Check if the interpreter is running. If it isn't take the source from the editor and push it to the interpreter.

stop_running()

Module contents

AlphaHooks.widgets.console.interpreters package

Submodules

AlphaHooks.widgets.console.interpreters.python module

class AlphaHooks.widgets.console.interpreters.python.**PythonInterpreter**(*config*, *parent=None*)

Bases: PyQt5.QtCore.QObject, code.InteractiveConsole

A reimplementation of the builtin InteractiveConsole to work with threads.

Signal push_command receive commands from console_input

Signal push_source receive source code from the code editor

Signal multi_line signal whether more lines are needed by the interpreter

Signal error send stderr immediately to console_log if an error occurs.

command(*command*)
Get line of code to be run and signal if more lines needed.

Parameters **command** – line retrieved from console_input on returnPressed

error

multi_line

push_command

push_source

runcode(*code*)
Overrides and captures stdout and stdin from InteractiveConsole.

running

write(*string*)
Override and signal to write directly to console_log. Usually used to emit that a traceback happened.

Module contents

Submodules

AlphaHooks.widgets.console.config module

class AlphaHooks.widgets.console.config.**ConsoleProperty**(*ui*, *config*, *parent=None*)
Bases: PyQt5.QtCore.QObject

Provides access to methods of console_log.

HISTORY_PATH = 'data/.history'

eventFilter(*self*, *QObject*, *QEvent*) → bool

stop_running()

AlphaHooks.widgets.console.io module

class AlphaHooks.widgets.console.io.**Stream**(*parent=None*)
Bases: PyQt5.QtCore.QObject

Custom stream class that emits a signal when written to.

Signal written emit what was written

write(*string*)

Parameters **string** – single write output from stdout

written

class AlphaHooks.widgets.console.io.**StringBuffer**(*parent=None*, *delay=50*)
Bases: PyQt5.QtCore.QObject

Buffer used for storing strings.

Signal output string(s) to be emitted

consume(*string*)
Add a string to the buffer and determine if it's time to flush.

flush()
Dump everything out of the buffer and send it to console_log.

output

Module contents

AlphaHooks.widgets.editor package

Subpackages

AlphaHooks.widgets.editor.lexers package

Submodules

AlphaHooks.widgets.editor.lexers.config module

class AlphaHooks.widgets.editor.lexers.config.**LexerBase**(*ui*, *font*)
Bases: PyQt5.QtCore.QObject

Common properties of all lexers.

AlphaHooks.widgets.editor.lexers.python module

class AlphaHooks.widgets.editor.lexers.python.**PythonLexer**(*ui*, *font*)
Bases: *AlphaHooks.widgets.editor.lexers.config.LexerBase*

Customized from QsciLexerPython to provide basic auto-completion.

lock()
Sets the default properties for the Python lexer.

Module contents

Submodules

AlphaHooks.widgets.editor.config module

class AlphaHooks.widgets.editor.config.**EditorProperty**(*ui*, *parent=None*)
Bases: PyQt5.QtCore.QObject

Provides access to methods of code_editor.

update_margin()
Adjust margin width to accommodate the number lines numbers.

Module contents

Submodules

AlphaHooks.widgets.collections module

class AlphaHooks.widgets.collections.**Populate**(*parent=None*, *display=None*)
Bases: PyQt5.QtCore.QObject

General class used for adding items to different widgets.

tree_widget(*tree*, *structure*)
Used to traverse a QTreeWidget and adding the items in a dict or list.

Parameters

- **tree** – pass a QTreeWidget instance
- **structure** – pass a dictionary

AlphaHooks.widgets.config module

class AlphaHooks.widgets.config.**WidgetRunner**(*ui*, *config*, *parent=None*)
Bases: PyQt5.QtCore.QObject

Loads default configurations of each widget.

stop()
Stop all running widgets, it's threads and any I/O tasks.

Module contents

AlphaHooks.windows package

Subpackages

AlphaHooks.windows.settings package

Submodules

AlphaHooks.windows.settings.config module

class AlphaHooks.windows.settings.config.**SettingsDialog**(*config*, *parent=None*)
Bases: PyQt5.QtWidgets.QWidget

Settings dialog opened from File -> Settings...

display(*current*)
Show the corresponding widget for the selected tree item.

Parameters **current** – the current tree item

AlphaHooks.windows.settings.root module

class AlphaHooks.windows.settings.root.**ConsoleSettings**(*config*, *parent=None*)
Bases: PyQt5.QtWidgets.QWidget

Input widgets to configure the Console

Module contents

Submodules

AlphaHooks.windows.config module

class AlphaHooks.windows.config.**MainInterface**(*main_window*, *config*)
Bases: PyQt5.QtCore.QObject

eventFilter(*self*, *QObject*, *QEvent*) → bool

re_translate_ui(*main_window*)

Module contents

Submodules

AlphaHooks.main module

class AlphaHooks.main.**MainWindow**
Bases: PyQt5.QtWidgets.QMainWindow

The main GUI window. Opens maximized.

DATA_PATH = 'data'

SETTINGS_PATH = 'settings.json'

closeEvent(*event*)
Finish up any tasks.

AlphaHooks.main.**main**()

AlphaHooks.resources module

AlphaHooks.resources.**qCleanupResources**()

AlphaHooks.resources.**qInitResources**()

Module contents

CHAPTER 2

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