

PySide6 – Qt for Python

`pyside6-assistant.py`

Hamilton Python Users Group

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PySide6 Assistant program provides:

- Help based on a Tree selection method.
- Help based on a Search string method
- Search through the provided help information.
Forward/backwards, case sensitive selection.
- Display Icons supplied.
- Search through Python example programs:
 - Display code lines either side of a match.
 - Ability to display whole program in separate window.
- Tree to select an example program and run it:
 - Display the example python programs code.
 - List all files in the example programs directory.

PySide6 Information

Python Code

Welcome to PySide6 Assistant.

Version:2022-10-07

Python:3.10.6

Qt Version:6.3.2

App:pyside6-assistant-2022-10-07.py

Select a Help Category and then an item within the category.

Modules:46 Classes:1296 Total Attributes:127811

PySide6 References:

https://wiki.qt.io/Qt_for_Python

<https://pypi.org/project/PySide6/>

PySide6 utilities installed:

(venv-pyside6) ~\$ pyside6-

pyside6-assistant

pyside6-lrelease

pyside6-qmlint

pyside6-designer

pyside6-lupdate

pyside6-qmltyperegistrar

pyside6-genpyi

pyside6-metaobjectdump

pyside6-rcc

pyside6-linguist

pyside6-project

pyside6-uic

To Launch Qt Designer

(venv-pyside6) ~/pyside6\$ pyside6-designer

(venv-pyside6) ~/pyside6\$ ~/venv-pyside6/lib/python3.10/site-packages/PySide6/designer

Refer:

<https://www.badprog.com/python-3-pyside2-setting-up-and-using-qt-designer>

The following Modules are installed as part of the \$ pip install PySide6:

Qt3DAnimation - Classes that support animations in simulations

Qt3DCore - The core classes to support near-realtime simulation systems

Qt3DExtras - Pre-built elements for use with Qt3D

Qt3DInput - Classes to handle user input when using Qt3D

Qt3DLogic - Classes that enable frame synchronization

Qt3DRender - Classes that enable 2D and 3D rendering

QtBluetooth - Classes to support connectivity between Bluetooth enabled devices

QtCharts - Classes to support the creation of 2D charts

Search PySide6...

Enter 4+ Characters...

PySide6 Modules

- Qt3DAnimation
- Qt3DCore
- Qt3DExtras
- Qt3DInput
- Qt3DLogic
- Qt3DRender
- QtBluetooth
- QtCharts
- QtConcurrent
- QtCore
- QtDBus
- QtDataVisualization
- QtDesigner
- QtGui

Run Example Programs

- 3d
- charts
- corelib
- datavisualization
- dbus
- declarative
- designer
- external
- installer_test
- multimedia

Find...



Case Sensitive

0 of 0 matches

Icon View

Search in Python code: Find...

Python Code

pyside6-uic

On the basis of

- › 2d
- › 3d
- › Select and launch
- › corelib
- › datavisualization
- › dbus
- › declarative
- › designer
- › external
- › installer-test
- › multimedia

Find...

PySide6 Modules

- QtConcurrent
- QtCore
 - ClassInfo
 - MetaFunction
 - MetaSignal
 - Property
 - PyClassProperty
 - QAbstractAnimation
 - QAbstractEventDispatcher
 - QAbstractItemModel
 - QAbstractListModel
 - QAbstractNativeEventFilter
 - QAbstractProxyModel
 - QAbstractTableModel
 - QAnimationGroup
 - QBasicMutex
 - QBasicTimer
 - QBitArray
 - QBuffer
 - QByteArray
 - QByteArrayMatcher
 - QCalendar
 - System
 - SystemId
 - Unspecified
 - YearMonthDay
 - availableCalendars
 - dateFromParts
 - dateTimeToString
 - dayOfWeek
 - daysInMonth

QtCore Module

QCalendar Class

Attribute Method

Tree Selection Example:

Help Information

PySide6 Information Python Code

PySide6.QtCore.QCalendar.dayOfWeek

from PySide6.QtCore import QCalendar

Suggested Import

PySide6.QtCore.QCalendar.dayOfWeek:

.dayOfWeek Help

Help on method_descriptor in PySide6.QtCore.QCalendar:

```
PySide6.QtCore.QCalendar.dayOfWeek = dayOfWeek(self, date:
    PySide6.QtCore.QDate) -> int
    dayOfWeek(self, date: PySide6.QtCore.QDate) -> int
```

PySide6.QtCore.QCalendar:

QCalendar Help

Help on class QCalendar in PySide6.QtCore:

```
PySide6.QtCore.QCalendar = class QCalendar(Shiboken.Object)
|   QCalendar(self) -> None
|   QCalendar(self, id: PySide6.QtCore.QCalendar.SystemId) -> None
|   QCalendar(self, name: str) -> None
|   QCalendar(self, system: PySide6.QtCore.QCalendar.System) -> None
```

Method resolution order:
QCalendar
Shiboken.Object
builtins.object

```
>>> from PySide6.QtCore import QCalendar, QDate
>>> calendar = QCalendar()
>>> calendar.dayOfWeek(QDate(2022,10,10))
1
```

Search Selection Example:

Help Information

Search string

Search PySide6...

date.to

- PySide6.QtCore.QDate.toJulianDay
- PySide6.QtCore.QDate.toPython
- PySide6.QtCore.QDate.toString**

PySide6 Information

Python Code

PySide6.QtCore.QDate.toString

from PySide6.QtCore import QDate

Suggested Import

PySide6.QtCore.QDate.toString:

QDate.toString Help

Help on method_descriptor in PySide6.QtCore.QDate:

```
PySide6.QtCore.QDate.toString = toString(...)
toString(self, format: PySide6.QtCore.Qt.DateFormat =
    PySide6.QtCore.Qt.DateFormat.TextDate) -> str
toString(self, format: str, cal: PySide6.QtCore.QCalendar =
    Default(QCalendar)) -> str
```

PySide6.QtCore.QDate:

QDate Help

Help on class QDate in PySide6.QtCore:

```
PySide6.QtCore.QDate = class QDate(Shiboken.Object)
| QDate(self) -> None
| QDate(self, QDate: PySide6.QtCore.QDate) -> None
| QDate(self, y: int, m: int, d: int) -> None
| QDate(self, y: int, m: int, d: int, cal: PySide6.QtCore.QCalendar) -> None
```

Method resolution order:

```
QDate
Shiboken.Object
builtins.object
```

Methods defined here:

```
>>> from PySide6.QtCore import QDate
>>> date = QDate(2022, 10, 10)
>>> date.toString("dd MMMM yyyy")
'10 October 2022'
```

Search through the help information of QDate:

days    ☐ Case Sensitive 1 of 12 matches




Help Information

Return repr(self).

addDays(self, days: int) -> PySide6.QtCore.QDate
addDays(self, days: int) -> PySide6.QtCore.QDate

addMonths(...)
addMonths(self, months: int) -> PySide6.QtCore.QDate
addMonths(self, months: int, cal: PySide6.QtCore.QCalendar) -> PySide6.QtCore.QDate

addYears(...)
addYears(self, years: int) -> PySide6.QtCore.QDate
addYears(self, years: int, cal: PySide6.QtCore.QCalendar) -> PySide6.QtCore.QDate

days    ☐ Case Sensitive 1 of 12 matches Icon View Search in Python code: Find...

Icon View:

of 12 matches Search in







































































Separate window opens and displays this introduction

Qt includes Icons in that may be made use of. They are acquired from `QtWidgets.QStyle.StandardPixmap`. Their names all start with the letters "SP_".

For example, to add the "Qt" icon so that it shows in the System Tray:

```
pixmap_i = getattr(QtWidgets.QStyle.StandardPixmap, "SP_TitleBarMenuButton")  
icon = self.style().standardIcon(pixmap_i)  
self.setWindowIcon(icon)
```


Icon View

| | | | |
|---|---|---|--|
|  SP_ArrowBack |  SP_ArrowDown |  SP_ArrowForward |  SP_ArrowLeft |
|  SP_ArrowRight |  SP_ArrowUp |  SP_BrowserReload |  SP_BrowserStop |
|  SP_CommandLink |  SP_ComputerIcon | SP_CustomBase |  SP_DesktopIcon |
| SP_DialogAbortButton |  SP_DialogApplyButton |  SP_DialogCancelButton |  SP_DialogCloseButton |
|  SP_DialogDiscardButton |  SP_DialogHelpButton | SP_DialogIgnoreButton |  SP_DialogNoButton |
| SP_DialogNoToAllButton |  SP_DialogOkButton |  SP_DialogOpenButton |  SP_DialogResetButton |
| SP_DialogRetryButton | SP_DialogSaveAllButton |  SP_DialogSaveButton |  SP_DialogYesButton |
| SP_DialogYesToAllButton |  SP_DirClosedIcon |  SP_DirHomeIcon |  SP_DirIcon |
|  SP_DirLinkIcon | SP_DirLinkOpenIcon |  SP_DirOpenIcon |  SP_DockWidgetCloseButton |
|  SP_DriveCDIcon |  SP_DriveDVDIcon |  SP_DriveFDIcon |  SP_DriveHDICon |
|  SP_DriveNetIcon |  SP_FileDialogBack |  SP_FileDialogContentsView |  SP_FileDialogDetailedView |
|  SP_FileDialogEnd |  SP_FileDialogInfoView |  SP_FileDialogListView |  SP_FileDialogNewFolder |
|  SP_FileDialogStart |  SP_FileDialogToParent |  SP_FileIcon |  SP_FileLinkIcon |
|  SP_LineEditClearButton |  SP_MediaPause |  SP_MediaPlay |  SP_MediaSeekBackward |
|  SP_MediaSeekForward |  SP_MediaSkipBackward |  SP_MediaSkipForward |  SP_MediaStop |
|  SP_MediaVolume |  SP_MediaVolumeMuted |  SP_MessageBoxCritical |  SP_MessageBoxInformation |
|  SP_MessageBoxQuestion |  SP_MessageBoxWarning | SP_RestoreDefaultsButton |  SP_TabCloseButton |
|  SP_TitleBarCloseButton |  SP_TitleBarContextHelpButton |  SP_TitleBarMaxButton |  SP_TitleBarMenuButton |
|  SP_TitleBarMinButton |  SP_TitleBarNormalButton |  SP_TitleBarShadeButton |  SP_TitleBarUnshadeButton |
|  SP_ToolBarHorizontalExtensionButton |  SP_ToolBarVerticalExtensionButton |  SP_TrashIcon | SP_VistaShield |

Search through Python example code:

Search in Python code:



29 matches

PySide6 Information

Python Code

Python Code Examples

```
1 #=====
2 # /charts/nestdeddonuts/nestdeddonuts.html
3     slice_startangle = slc.startAngle()
4     slice_endangle = slc.startAngle() + slc.angleSpan()
5
6     donut = slc.series()
7     idx = self.donuts.index(donut)
8     for i in range(idx + 1, len(self.donuts)):
9         self.donuts[i].setPieStartAngle(slice_endangle)
10        self.donuts[i].setPieEndAngle(360 + slice_startangle)
11    else:
12        for donut in self.donuts:
13 #=====
```

Click to open a separate window that displays all the code in `nestdeddonuts.py`

“.index” - 5th line of code

28 more snippets of code

Python Code Examples

Separate window that
displaying all the code in
nesteddonuts.py

```
1 """PySide6 port of the Nested Donuts example"""
2
3 import sys
4
5 from PySide6.QtCore import Qt, QTimer, Slot
6 from PySide6.QtGui import QPainter
7 from PySide6.QtWidgets import QApplication, QGridLayout, QWidget
8 from PySide6.QtCharts import QChart, QChartView, QPieSeries, QPieSlice
9
10
11 from random import randrange
12 from functools import partial
13
14
15 class Widget(QWidget):
16     def __init__(self):
17         super().__init__()
18         self.setMinimumSize(800, 600)
19         self.donuts = []
20         self.chart_view = QChartView()
21         self.chart_view.setRenderHint(QPainter.Antialiasing)
22         self.chart = self.chart_view.chart()
23         self.chart.legend().setVisible(False)
```

```
72 def explode_slice(self, exploded, slc):
73     if exploded:
74         self.update_timer.stop()
75         slice_startangle = slc.startAngle()
76         slice_endangle = slc.startAngle() + slc.angleSpan()
77
78         donut = slc.series()
79         idx = self.donuts.index(donut)
80         for i in range(idx + 1, len(self.donuts)):
81             self.donuts[i].setPieStartAngle(slice_endangle)
82             self.donuts[i].setPieEndAngle(360 + slice_startangle)
83     else:
84         for donut in self.donuts:
85             donut.setPieStartAngle(0)
86             donut.setPieEndAngle(360)
87
88         self.update_timer.start()
89
90     slc.setExploded(exploded)
91
92
93 if __name__ == "__main__":
94     app = QApplication(sys.argv)
95     w = Widget()
96     w.show()
97     sys.exit(app.exec())
```

“.index” in snippet

Tree Selection to run example Programs. E.g. Area Chart:

Run Example Programs

- 3d
- charts
- corelib
- datavisualization
- dbus
- declarative
- designer
- external
- installer_test
- multimedia
- network
- networkauth
- opengl
- quick
- quick3d
- quickcontrols2
- remoteobjects
- samplebinding
- sql
- uitools
- utils
- webchannel
- webenginequick
- webenginewidgets
- widgetbinding
- widgets
- xml

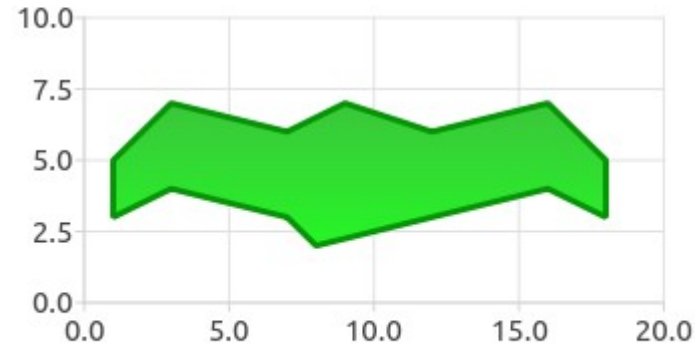
Run Example Programs

- 3d
- charts
 - areachart
 - areachart.py
- audio
- bargraph
- callout
- chartthemes
- donutbreakdown

areachart.py

Simple areachart example

■ Batman



Tree Selection to run example Programs. Area Chart python code:

PySide6 Information

Python Code

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/areachart.py

```
1 #####
2 ##
3 ## Copyright (C) 2021 The Qt Company Ltd.
4 ## Contact: https://www.qt.io/licensing/
5
41 """PySide6 port of the areachart example from Qt v6.x"""
42
43 import sys
44 from PySide6.QtCore import QPointF, Qt
45 from PySide6.QtWidgets import QMainWindow, QApplication
46 from PySide6.QtCharts import QChart, QChartView, QLineSeries, QAreaSeries
47 from PySide6.QtGui import QGradient, QPen, QLinearGradient, QPainter
48
49
50 class TestChart(QMainWindow):
51     def __init__(self):
52         super().__init__()
```


Tree Selection to run example Programs. Area Chart file list:

```
98 if __name__ == "__main__":  
99     app = QApplication(sys.argv)  
100  
101     window = TestChart()  
102     window.show()  
103     window.resize(400, 300)  
104     sys.exit(app.exec())
```

Files in example directory:

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/areachart.py

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/areachart.pyproject

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/doc

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/doc/areachart.png

/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/charts/areachart/doc/areachart.rst

Folder for examples

Area Chart files

Tree Selection to run example Programs. Animation Easing file list:

Files in example directory:

Animation Easing files

```
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/doc  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/doc/easing.png  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/doc/easing.rst  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/easing.py  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/easing.pyproject  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/form.ui  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/images  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/images/qt-logo.png  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/easing/ui_form.py
```

form.ui converted by
pyside6-uic to ui_form.py

Tree Selection to run example Programs. Animation States file list:

Files in example directory:

```
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/doc  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/doc/states.png  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/doc/states.rst  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/states.py  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/states.pyproject  
/home/ian/venv-pyside6/lib/python3.10/site-packages/PySide6/examples/widgets/animation/states/states_rc.py
```

Animation States files

Contains pyside6-rcc
generated file states_rc.py

PySide6

- Demo
- Highlights / Bugs of pyside6-assistant.py code