# PYQTGRAPH

John Fredy Ochoa Gómez
Bioengineering Department
University of Antioquia

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UNIVERSIDAD DE ANTIOQUIA
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# PYQTGRAPH

## WHAT IS PYQTGRAPH?

- PyQtGraph is a graphics and user interface library for Python that provides functionality commonly required in engineering and science applications.
- Its primary goals are 1) to provide fast, interactive graphics for displaying data (plots, video, etc.) and 2) to provide tools to aid in rapid application development.
- PyQtGraph makes heavy use of the Qt GUI platform (via PyQt or PySide) for its high-performance graphics and numpy for heavy number crunching.
- Bring optimized and simplified primitives to this framework to allow data visualization with minimal effort.

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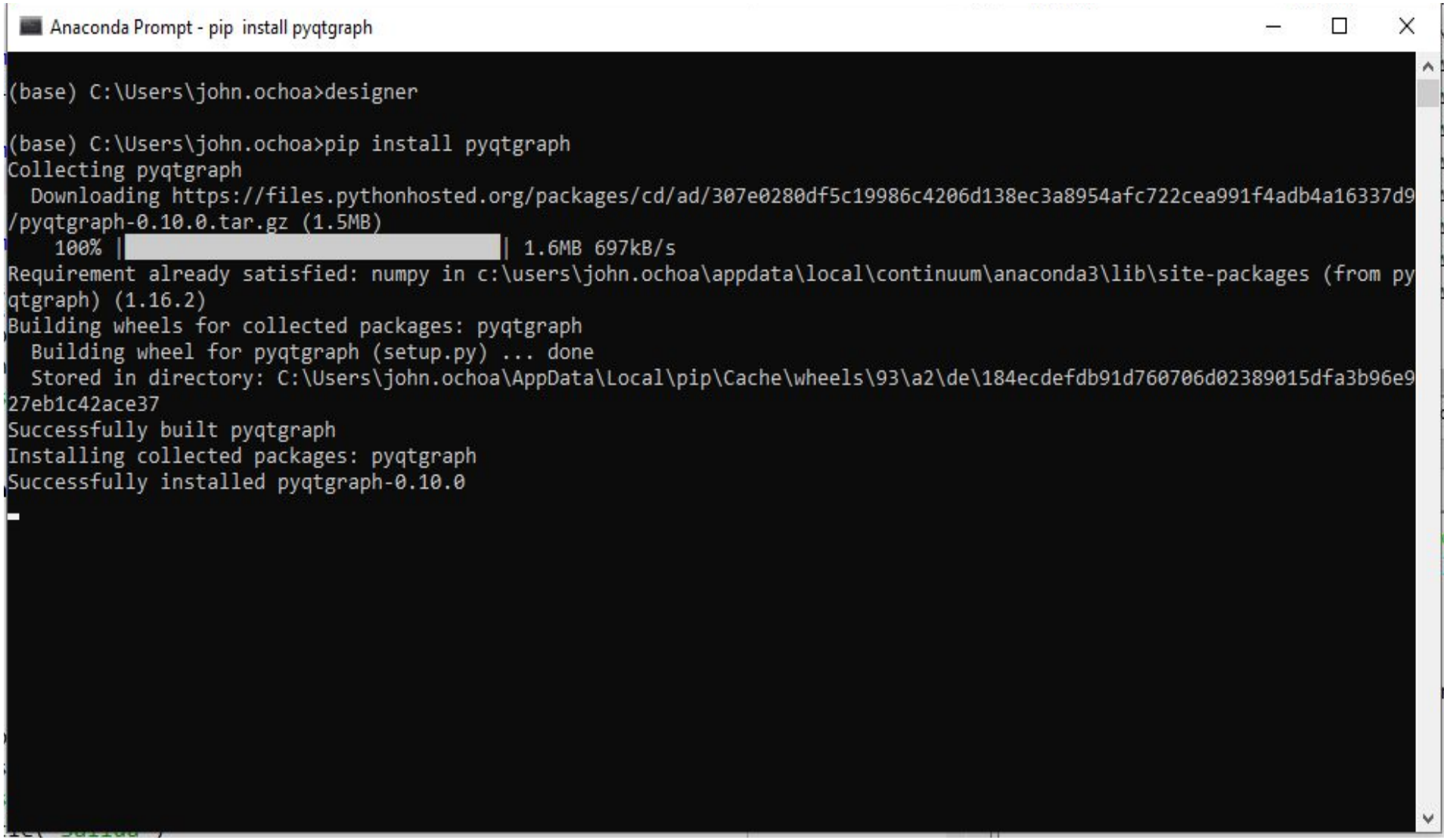

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## BASIC EXAMPLE

- Create/show a plot widget, display three data curves:

```
import pyqtgraph as pg
import numpy as np
import numpy as np
from PyQt5.QtWidgets import QApplication
import sys

x = np.arange(1000)
y = np.random.normal(3, 2.5, size=(3, 1000))

app = QApplication(sys.argv)
plotWidget = pg.plot(title="Curves")
for i in range(3):
    plotWidget.plot(x,y[i], pen=(i,3))
plotWidget.plot(x)
```

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## PYQTGRAPH AND QT

- In Designer, create a QGraphicsView widget (“Graphics View” under the “Display Widgets” category).
- Right-click on the QGraphicsView and select “Promote To...”.
- Under “Promoted class name”, enter the class name you wish to use (“PlotWidget”, “GraphicsLayoutWidget”, etc).
- Under “Header file”, enter “pyqtgraph”.
- Click “Add”, then click “Promote”.

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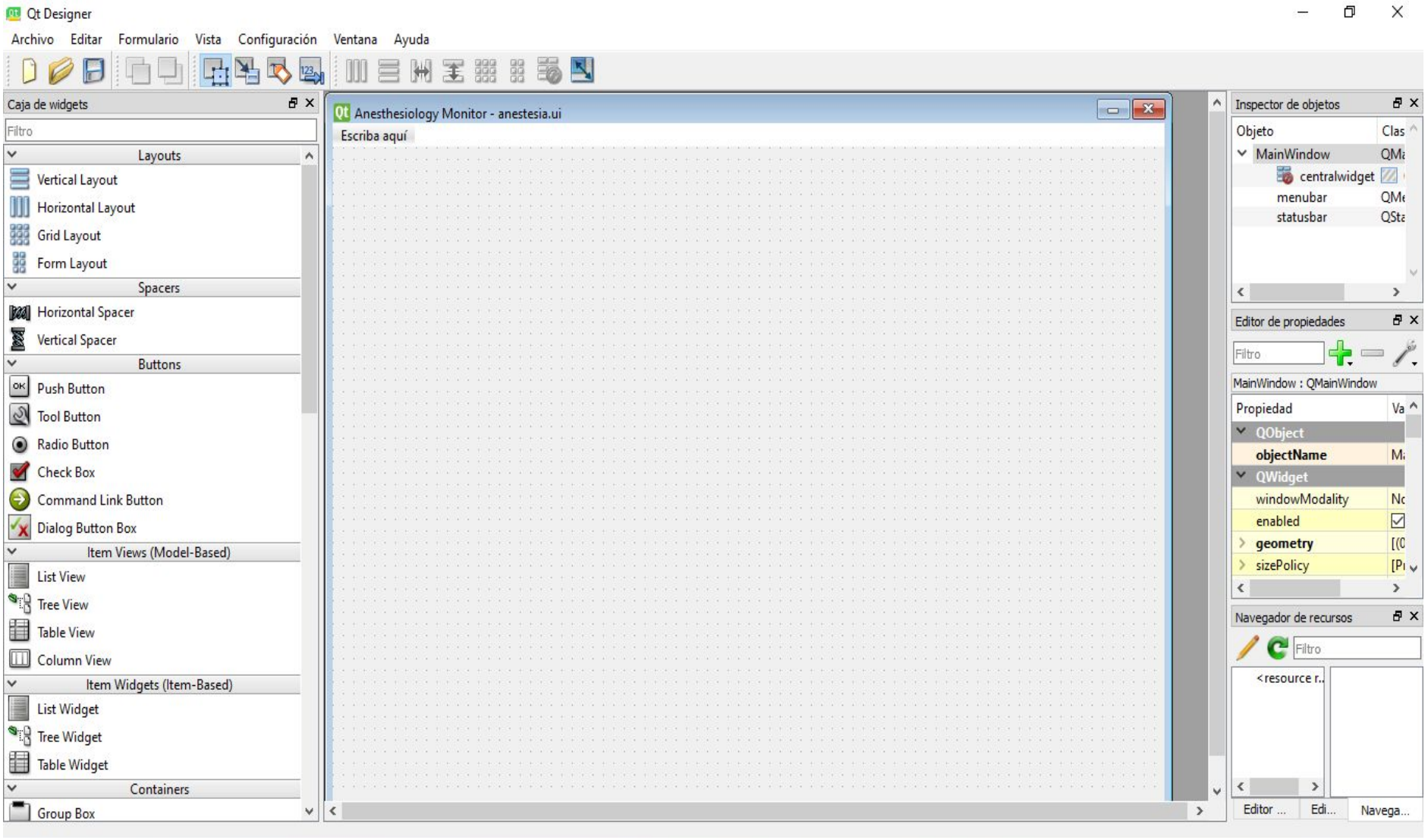

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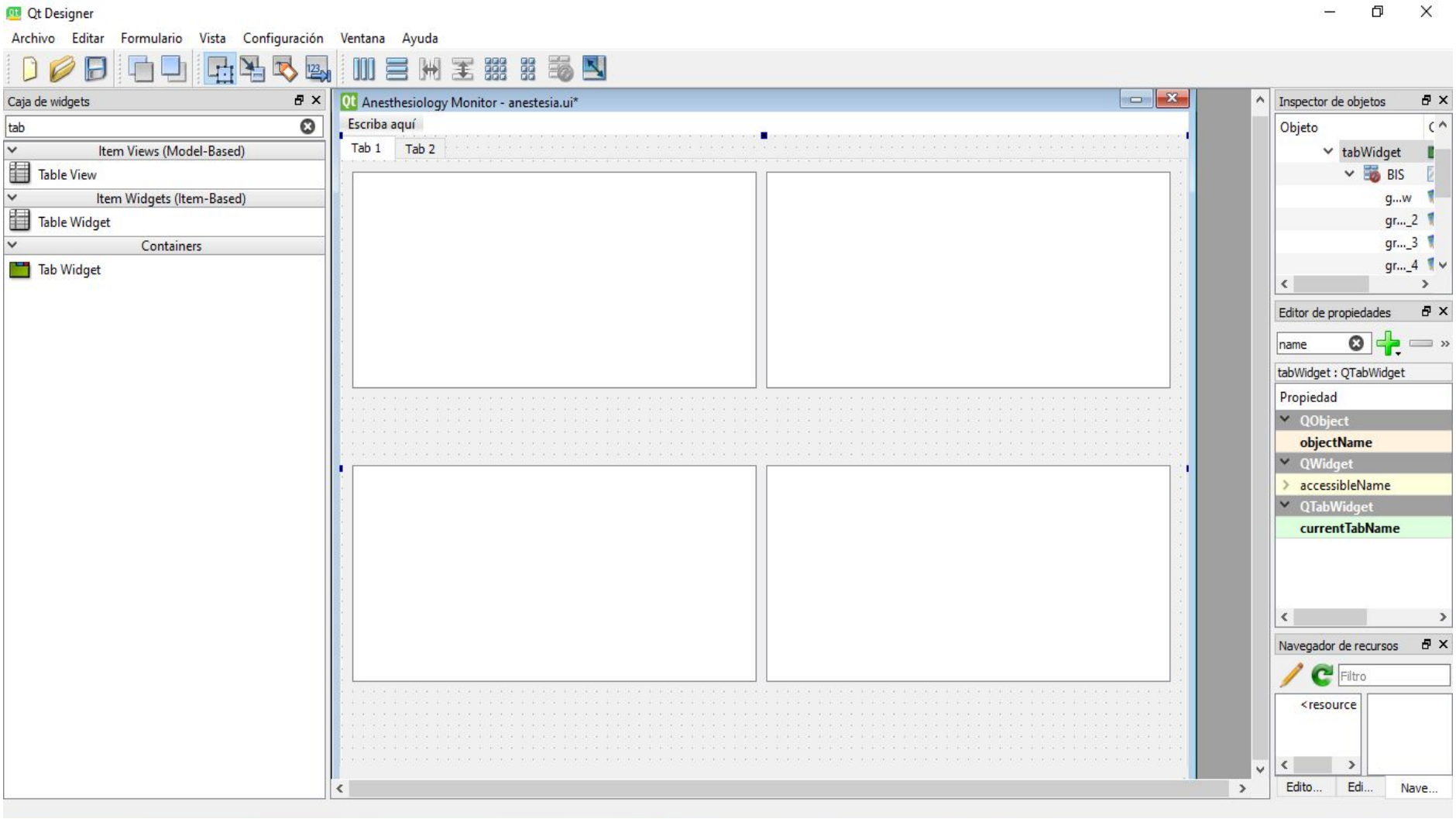

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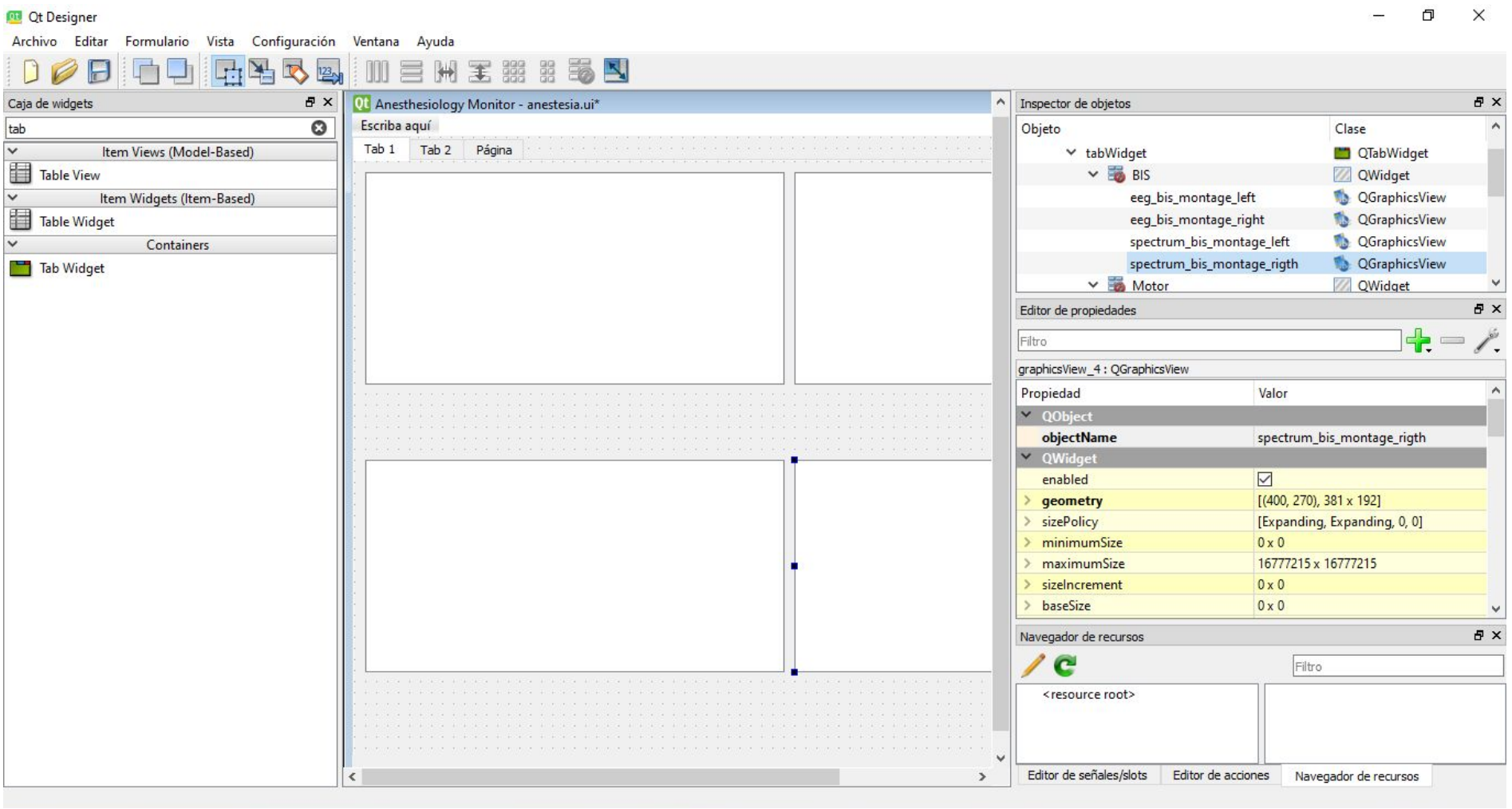

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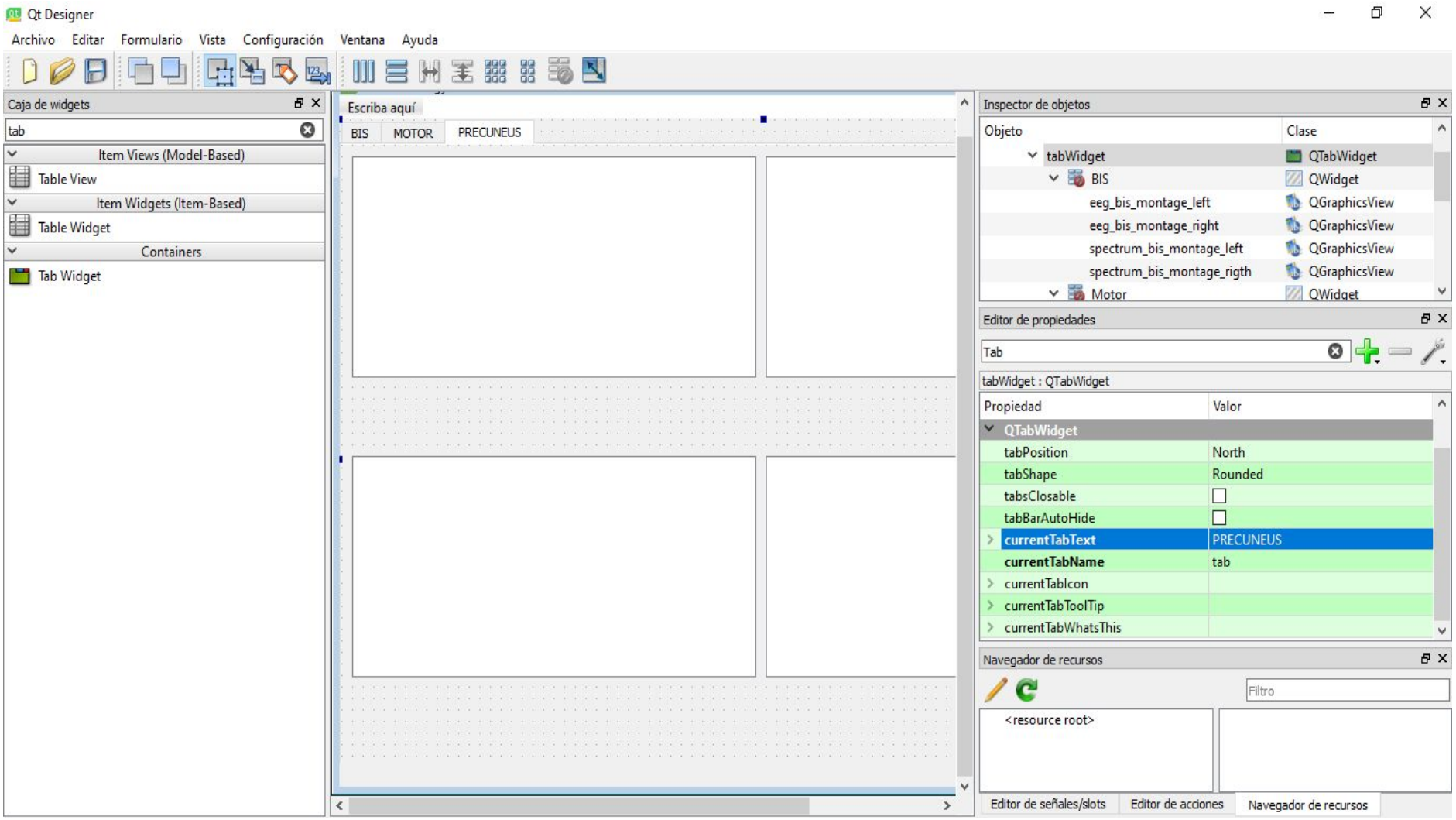

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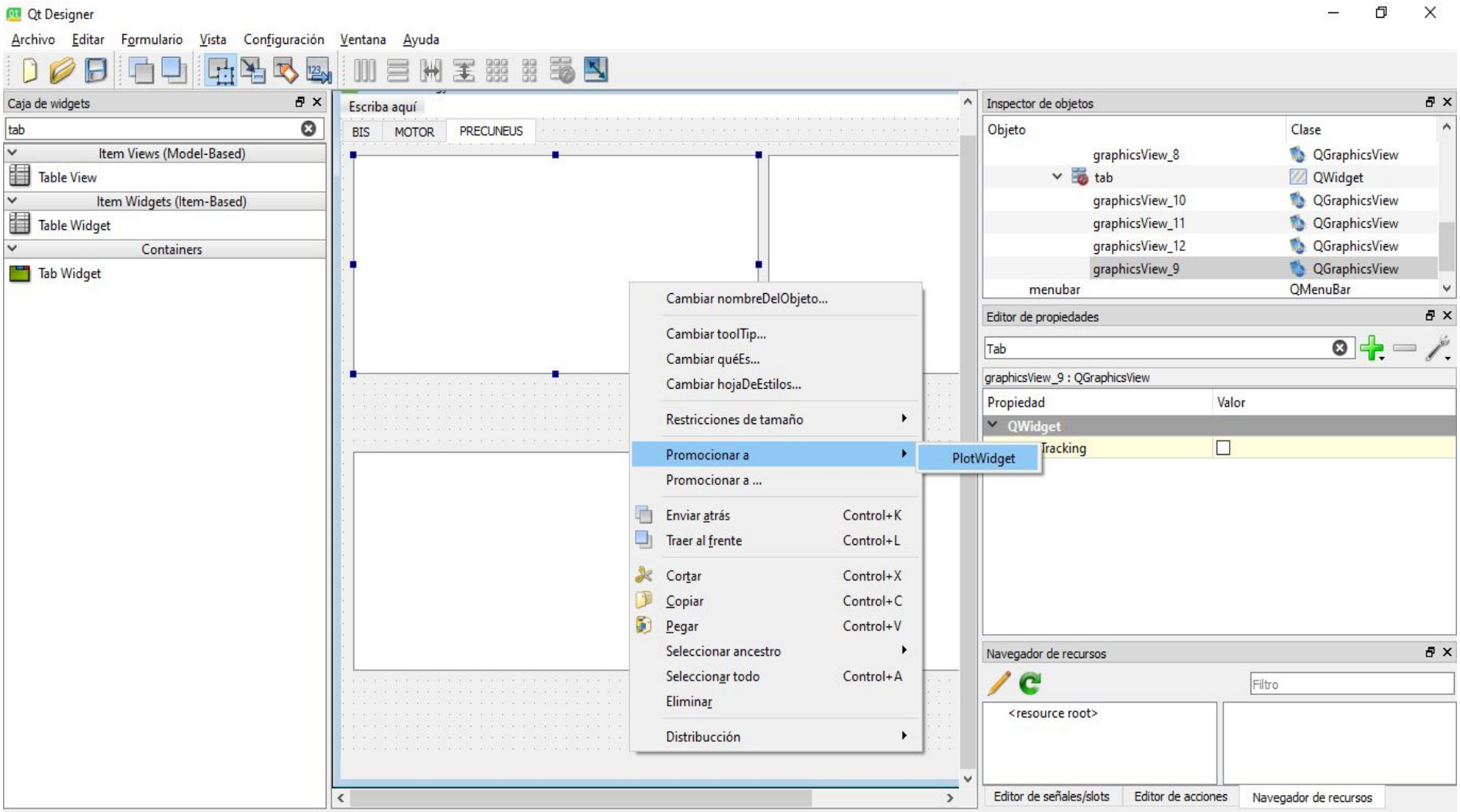

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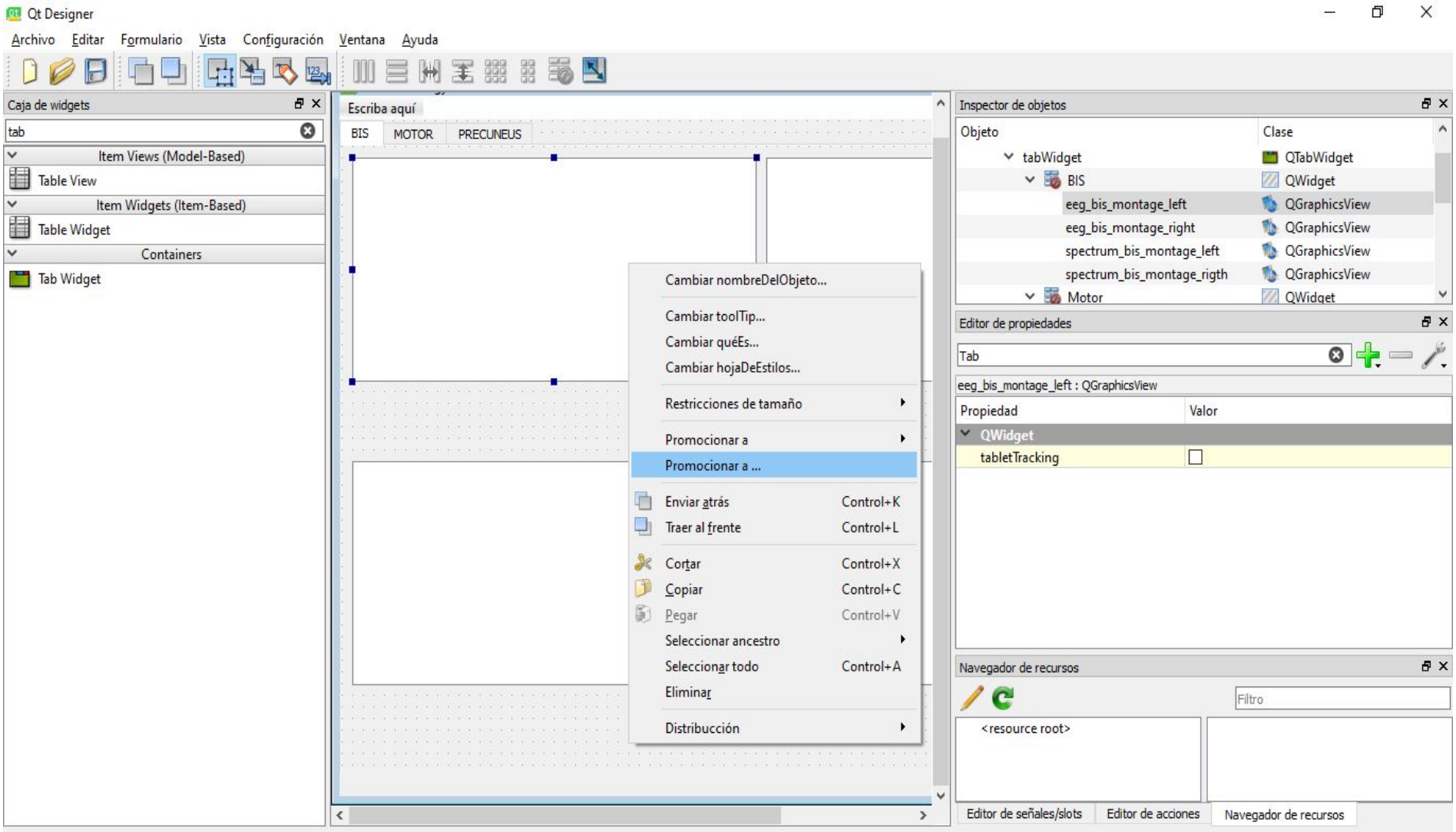

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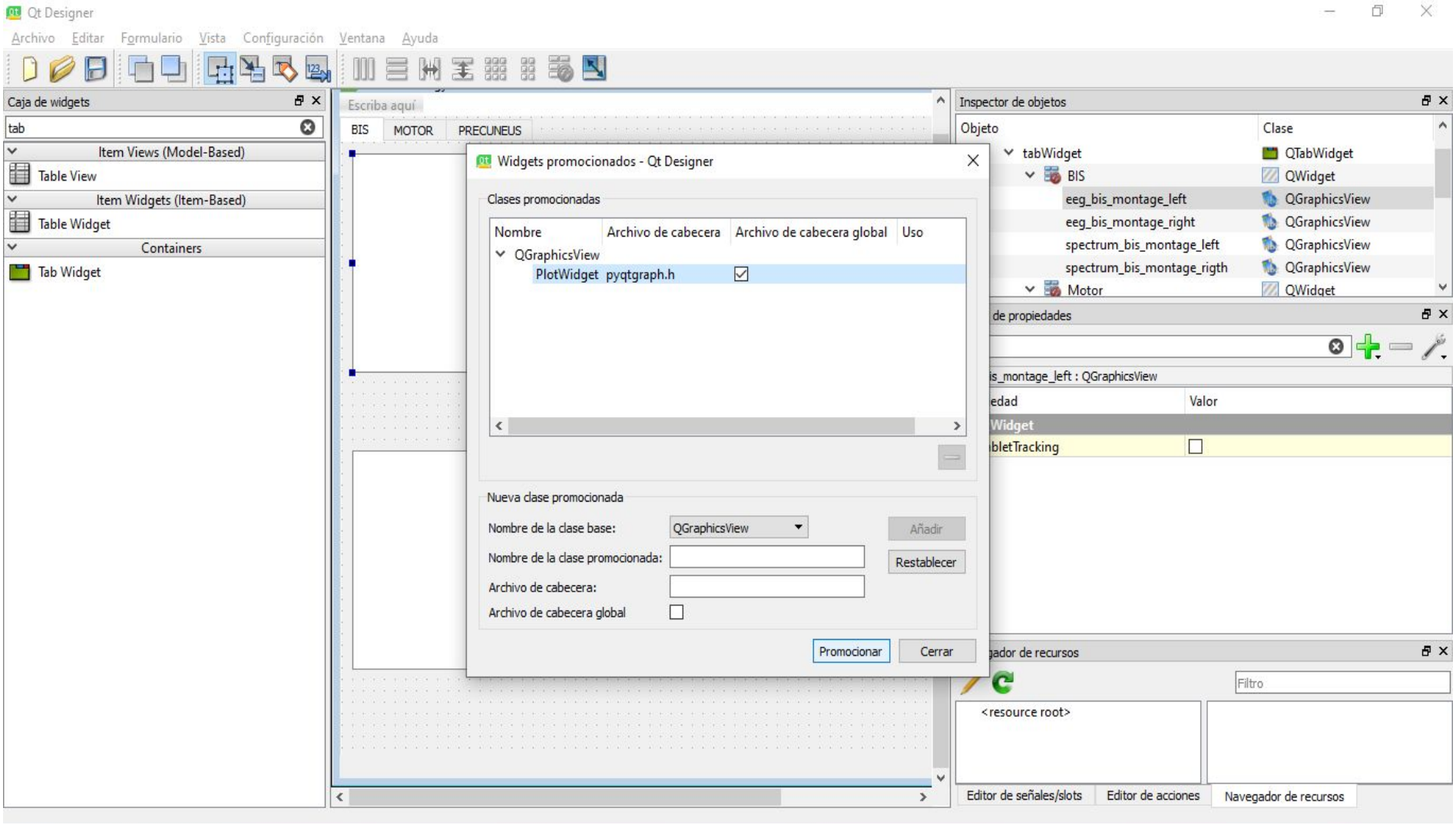

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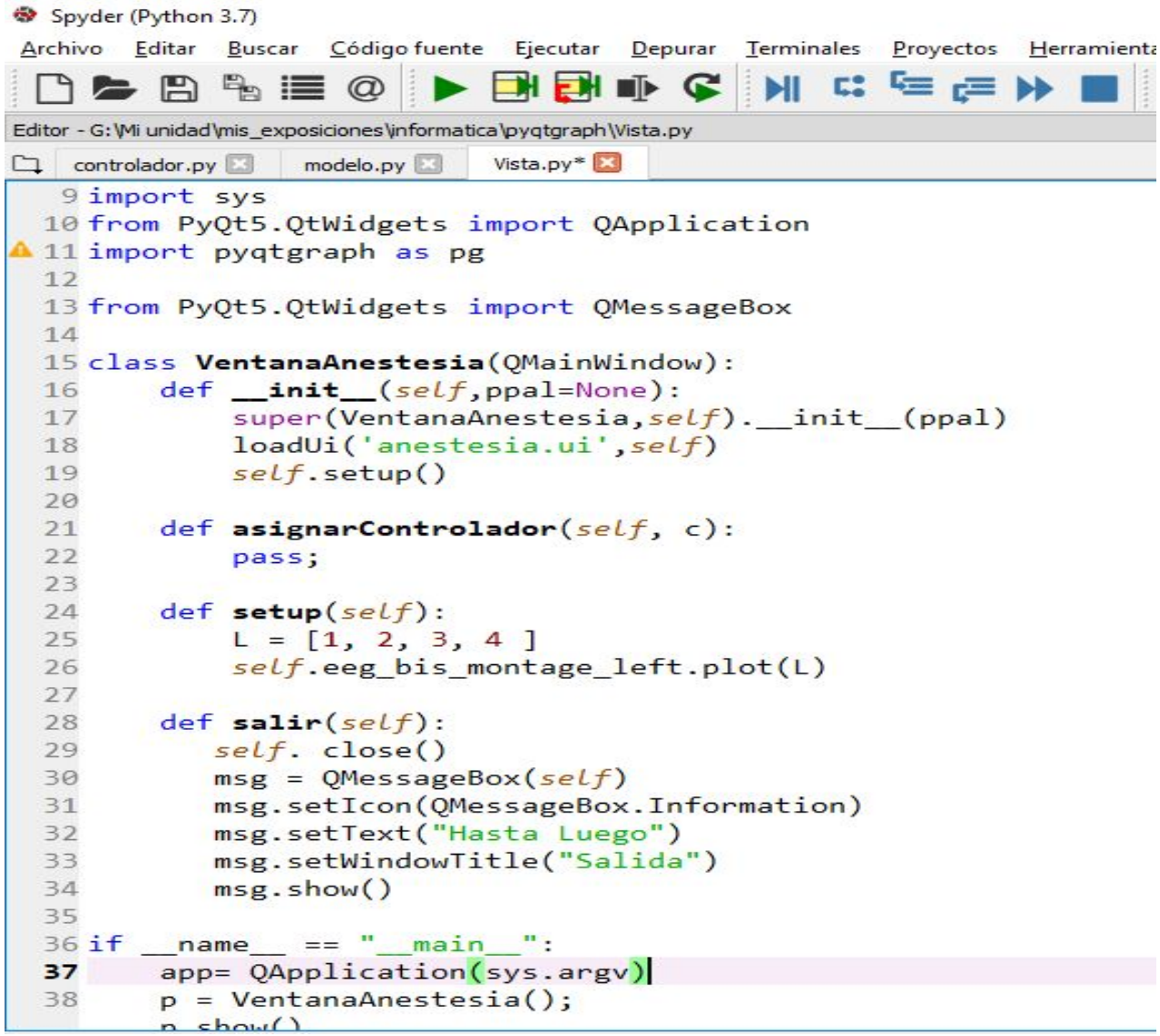

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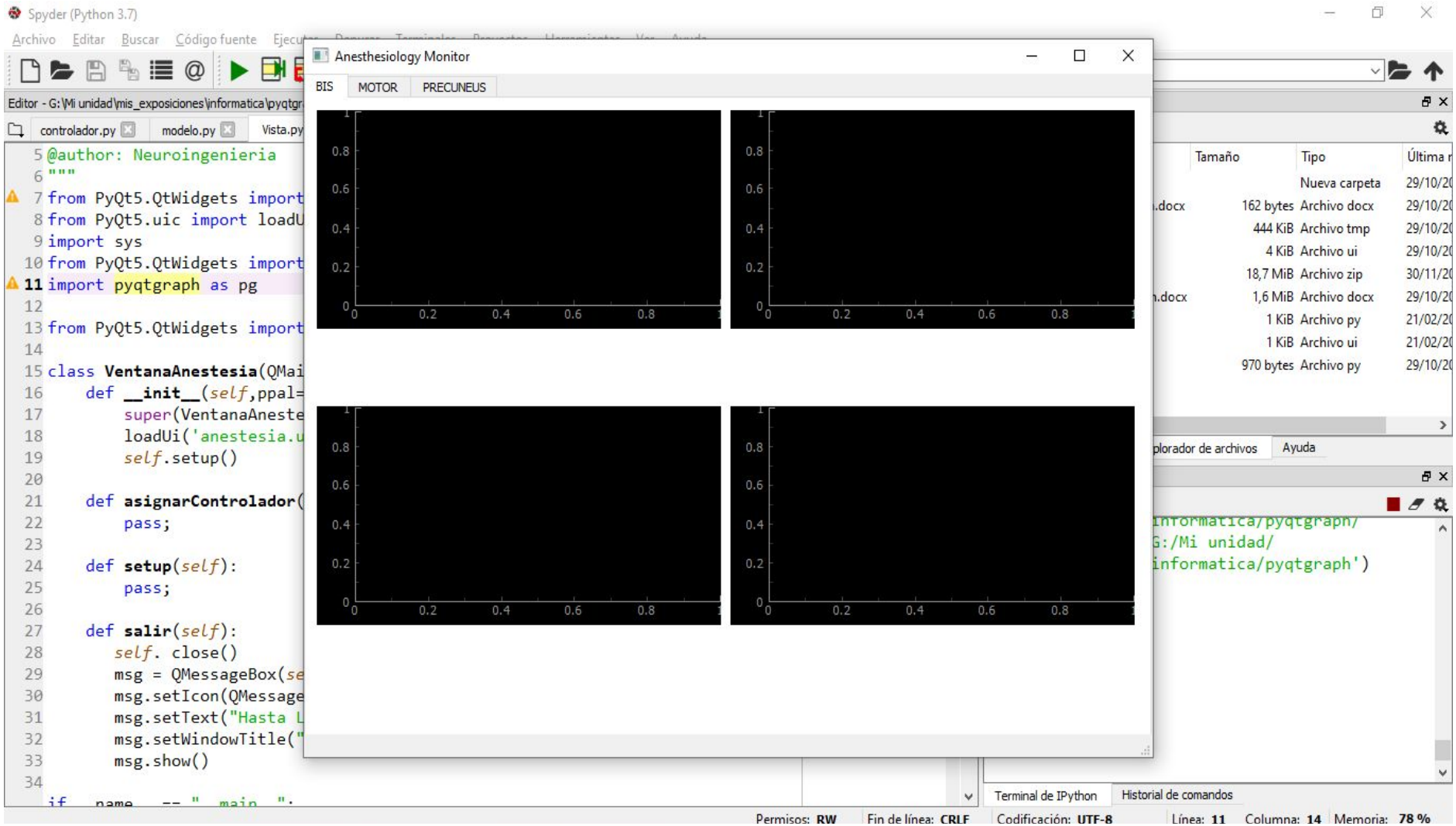

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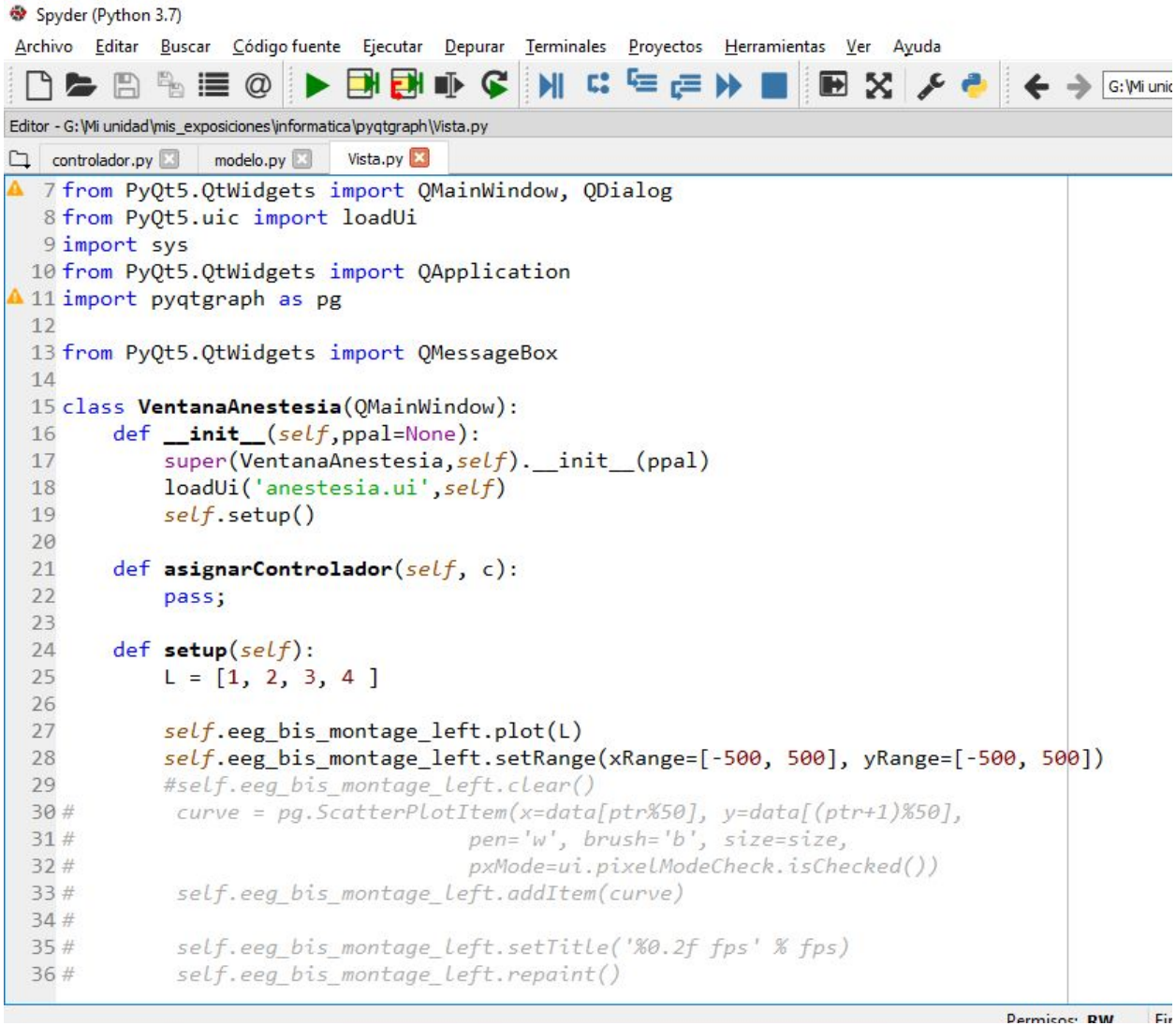

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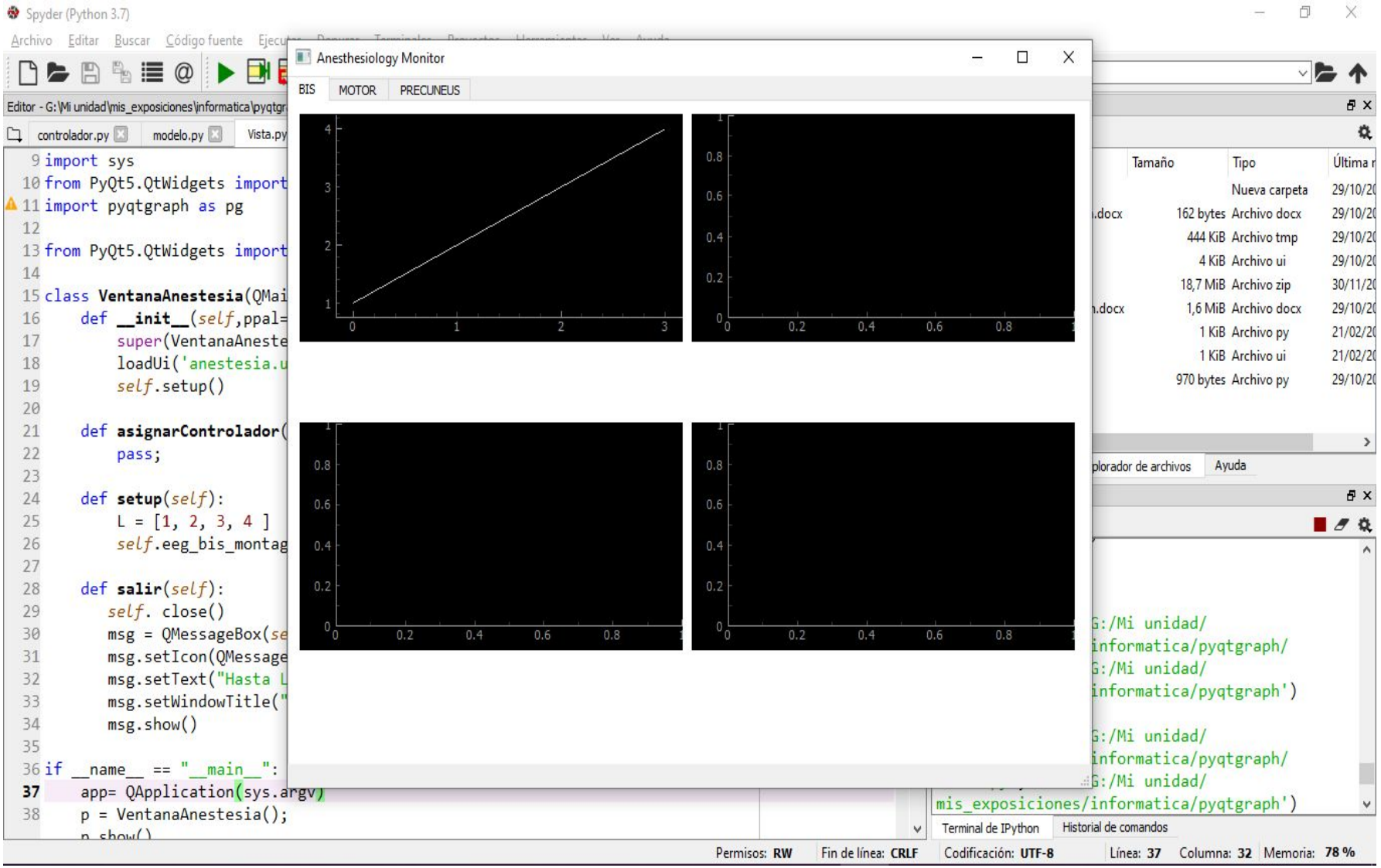

# CONTENT

1. **Numpy**
2. Scipy
3. MatplotLib