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#!/usr/bin/python
timeout=1

from PyQt4 import QtCore, QtGui
import serial
import sys
#SERIALPORT = '/dev/ttyACM0'

class Ui_MainWindow(object):
    def setupUi(self, MainWindow):
        MainWindow.setObjectName("MainWindow")
        MainWindow.resize(800, 600)
        MainWindow.setMaximumSize(QtCore.QSize(800, 600))
        self.centralwidget = QtGui.QWidget(MainWindow)
        self.centralwidget.setObjectName("centralwidget")
        self.pushButton = QtGui.QPushButton(self.centralwidget)
        self.pushButton.setGeometry(QtCore.QRect(220, 290, 251, 61))
        self.pushButton.setObjectName("pushButton1")
        self.pushButton_2 = QtGui.QPushButton(self.centralwidget)
        self.pushButton_2.setGeometry(QtCore.QRect(680, 510, 85, 27))
        self.pushButton_2.setObjectName("pushButton_2")
        self.textEdit = QtGui.QTextEdit(self.centralwidget)
        self.textEdit.setGeometry(QtCore.QRect(60, 140, 561, 94))
        self.textEdit.setObjectName("textEdit")
        self.lineEdit = QtGui.QLineEdit(self.centralwidget)
        self.lineEdit.setGeometry(QtCore.QRect(60, 50, 561, 25))
        self.lineEdit.setObjectName("lineEdit")
        self.pushButton_3 = QtGui.QPushButton(self.centralwidget)
        self.pushButton_3.setGeometry(QtCore.QRect(220, 370, 251, 61))
        self.pushButton_3.setObjectName("pushButton_3")
        MainWindow.setCentralWidget(self.centralwidget)
        self.menubar = QtGui.QMenuBar(MainWindow)
        self.menubar.setGeometry(QtCore.QRect(0, 0, 800, 27))
        self.menubar.setObjectName("menubar")
        self.menuMenu = QtGui.QMenu(self.menubar)
        self.menuMenu.setObjectName("menuMenu")
        MainWindow.setMenuBar(self.menubar)
        self.statusbar = QtGui.QStatusBar(MainWindow)
        self.statusbar.setObjectName("statusbar")
        MainWindow.setStatusBar(self.statusbar)
        self.menubar.addAction(self.menuMenu.menuAction())

        self.retranslateUi(MainWindow)
        #QtCore.QObject.connect(MainWindow, "
            #" QtCore.SIGNAL("destroyed()"), MainWindow.deleteLater)

        QtCore.QObject.connect(self.pushButton,
                                QtCore.SIGNAL("clicked()"), azz.invia_arduino_on)
        QtCore.QObject.connect(self.pushButton_3,
                                QtCore.SIGNAL("clicked()"), azz.invia_arduino_off)
        QtCore.QObject.connect(self.pushButton_2,
                                QtCore.SIGNAL("clicked()"), azz.quit_gui)

        QtCore.QMetaObject.connectSlotsByName(MainWindow)

    def retranslateUi(self, MainWindow):
        MainWindow.setWindowTitle(QtGui.QApplication.
            translate("MainWindow", "Python QT e Arduino Esercizio 5 OOP",
            None, QtGui.QApplication.UnicodeUTF8))

        self.pushButton.setText(QtGui.QApplication.
            translate("MainWindow", "+1",
            None, QtGui.QApplication.UnicodeUTF8))

        self.pushButton_2.setText(QtGui.QApplication.
            translate("MainWindow", "Quit", None,
            QtGui.QApplication.UnicodeUTF8))

        self.lineEdit.setText(QtGui.QApplication.
            translate("MainWindow", "Prova OOP",
            None, QtGui.QApplication.UnicodeUTF8))
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self.pushButton_3.setText(QtGui.QApplication.  
    translate("MainWindow", "-1",  
        None, QtGui.QApplication.UnicodeUTF8))  
  
self.menuMenu.setTitle(QtGui.QApplication.  
    translate("MainWindow", "Menu",  
        None, QtGui.QApplication.UnicodeUTF8))  
ui.textEdit.append("Contatore:")  
  
class Azioni():  
    def __init__(self):  
        self.a=0  
  
    def invia_arduino_on(self):  
        testo_arduino = "0"  
        #arduino.write(testo_arduino)  
        msg="Acceso Led 13"  
  
        self.a+=1  
        #ui.lineEdit.setText(msg)  
        ui.lineEdit.setText(str(self.a))  
        ui.textEdit.append(str(self.a))  
        #ui.lineEdit.setText("primo")  
  
    def invia_arduino_off(self):  
        testo_arduino = "1"  
        #arduino.write(testo_arduino)  
        #global a  
        self.a-=1  
  
        msg="Spento Led 13"  
        ui.lineEdit.setText(str(self.a))  
        #ui.lineEdit.setText(msg)  
        ui.textEdit.append(str(self.a))  
  
    def quit_gui(self):  
        quit()  
  
if __name__ == "__main__":  
    #arduino = serial.Serial(SERIALPORT, 9600, timeout=1)  
    azz=Azioni()  
  
    app = QtGui.QApplication(sys.argv)  
    MainWindow = QtGui.QMainWindow()  
    ui = Ui_MainWindow()  
    ui.setupUi(MainWindow)  
    MainWindow.show()  
    sys.exit(app.exec_())  
    arduino.close()
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