Introduction to Computer Graphics for Engineering

Short Course - 16th -18th June 2014

Implementation of a GUI RPN calculator for integer numbers

Implement a GUI (*Guided User Interface*) version of the described RPN (*Reversed Polish Notation*) calculator using Qt interface system. The GUI version of the implemented RPN calculator should be based on the console version described in this course: http://www.tecgraf.puc-rio.br/ftp pub/lfm/L1E RPNCalculator.pdf. Note that the console RPN calculator works with double precision floating point number, whilst the assigned GUI RPN calculator works with integer numbers.

Complete the graphics program available in the course homepage: http://www.tecgraf.puc-rio.br/~lfm/HW1 GuiRPN.zip.

This program uses Qt interface system.

Display Widgets

N Label

Understanding the given code is part of the assignment.

An executable program, which is the solution of the assignment, is provided: http://www.tecgraf.puc-rio.br/~lfm/HW1 GuiRPN-solution.zip.

Ot Designer <u>File Edit Form View Settings Window Help</u> ₽× GUI RPN - myapp.ui Filter Object Class MyAppClass **OMainWindow** centralWidget /// OWidget OK Push Button inputViewer QLineEdit Tool Buttor pushButton_0 QPushButton pushButton 1 **OPushButton** Radio Button pushButton_2 QPushButton Clear Check Box pushButton_3 QPushButton pushButton 4 **OPushButton** Ommand Link Button QPushButton pushButton 5 Button Box pushButton 6 QPushButton * 6 pushButton_7 **OPushButton** Item Views (Model-Based pushButton 8 **OPushButton** -Item Widgets (Item-Ba pushButton_9 QPushButton pushButton_clear OK QPushButton pushButton_diff **OPushButton** Combo Box QPushButton pushButton_div Font Comb pushButton_enter QPushButton pushButton_prod **OPushButton** ABX Line Edit pushButton sum **QPushButton** AI Text Edit AI Plain Text Edit Property Editor ₽× 1 Spin Box Filter 1.2 Double Spin Box MyAppClass: QMainWindow (I) Time Edit Property Value △ QObj Date Edit objectName MyAppClass Date/Time Edit Dial Action Editor ₽× Horizontal Scroll Bar D D & X / 0 Vertical Scroll Bar Shortcut Checkable Horizontal Slider P Vertical Slider

Signal/Slot Editor

Action Editor

Resource Browser

Image of Qt Designer interface with the used widgets (interface objects) in the solution program: