



Go4 version 4.4

J.Adamczewski, H.G.Essel, S.Linev



Creating user GUI in Go4

- **User GUI basics**
- **Standard User GUI example**
- **Functionality of QGo4Widget**
- **Getting started with own GUI**



User GUI basics

- GO4USERGUI shell variable specifies path and name of shared library with user GUI
- StartUserPanel() function defines entry point
- Top-level widget must be inherited from QGo4Widget class
- Plugin for Qt designer can be generated by:
make plugin



User GUI example

- In `$GO4SYS/Go4UserGUI`
- Contains one widget, inherited from `QGo4Widget`
- Shows:
 - drag & drop items from browser
 - draw / edit / info of any item
 - object update/delete notification
 - usage of QtRoot canvas



User GUI drag & drop

Via two virtual methods of QGo4Widget:

- `bool IsAcceptDrag(const char* itemname, TClass* cl, int kind)`
 - Here user should decide if item of that class and kind (object, parameter, tree leafs, event and so on) can be accepted or not
- `void DropItem(const char* itemname, TClass* cl, int kind)`
 - when drag is accepted and user drop item on panel, any action can be done. In example label is updated



Accessible functionality

- Many useful methods of QGo4Widget:
 - EditItem(const char* itemname)
 - DrawItem(const char* itemname)
 - ShowItemInfo(const char* itemname)
 - SaveItemToFile()
 - UpdateItemInAnalysis()
- Methods of TGo4Interface, TGo4BrowserProxy and TGo4AnalysisProxy also accessible



Notification

- Object manager can inform user GUI when object is updated / deleted in browser
- To enable, link between browser item and user widget must be established (typically, when item is dropped):
 AddLink(itemname,"LinkName")
- Virtual methods must be reimplemented:
 QUserPanel::linkedObjectUpdated(linkname, obj)
 QUserPanel::linkedObjectRemoved(linkname)
- In these methods correct update of user panel must be implemented.
- This directly enable monitoring of objects in user panel



Making own user GUI

- Copy content of `$GO4SYS/qt4/Go4UserGUI` in new location
- Compile:
shell\$ `make clean`
shell\$ `make all`
- Set `GO4USERGUI` variable:
shell\$ `export GO4USERGUI=`pwd``
- Run `go4` and activate user GUI panel
- If necessary, install designer plugin (from `$GO4SYS`):
shell\$ `make plugin`
shell\$ `cp qt4/Go4Plugin/libgo4plugin.so $QTDIR/plugins/designer`
- Modify widget in designer:
shell\$ `designer QUserPanel.ui`