Report of the meeting between Root and LHCb Online Friday 28 September 2007.

Present: Peter Somogyi, Eric van Herwijnen, Beat Jost, Fons Rademakers, Clara Gaspar, Ilka Antcheva, Bertrand Bellenot, Rene Brun

Apologies: Monica Pepe-Altarelli

Status of histogram presenter (Peter Somogyi)

Peter reminded us of the main requirements and use cases of the Presenter (see slides distributed prior to the meeting).
He has separated updating of histograms by DIM from user manipulations on histograms (zooming, fitting). This version is much more stable, however during the demonstration , the following issues came up:

Concurrency issues

LHCb:
- Avoid concurrency when our use cases don't need it. E.g. by customizing the context menu and by keeping only zoom and unzoom for running histograms. The full context menu will only be enabled on a static copy of the histogram. Fitting a running histogram will be impossible.

Root:
- It should be possible to zoom and resize histograms at any time.

Performance issues

LHCb:
- For histograms with more than 500 bins the TImage class should be used.
- Canvas organization: better to move and resize pads (call SetPad) than to delete old ones and create new ones in batch (although this shouldn't crash).

Root:
- There is a flicker when updating on windows.
- Adding 100 pads to the canvas is very slow.

Tree widget issues.

- A member function to disable a tree should be added
- Select all to be implemented

- Windows tree behaviour to be implemented: when a node is selected, this should be propagated up and down the complete tree, not only the parent level. This behaviour should be settable via an option (off (default): old behaviour; on: new behaviour).
- To return information from the tree, Ilka's code that she prepared for Peter could be released if, instead of a list of strings of selected objects, it returns a TGListTreeItem.

Demonstration of the new TBrowser (Bertrand Bellenot)

Bertrand demonstrated the new TBrowser which can connect to root files published by a Web server. It also allows plugging in other Root applications. LHCb could have several presenters running in a single TBrowser session.

Conclusion

As soon as Peter has completely separated the histogram manipulations from their being updated, he will contact the Root team and sit with them to work on the various crashes. Bertrand will independently work on the tree widget.