Minutes of the discussion meeting about the Objectivity/DB project

G. Dissertori, 30.4.1998 and 5.5.1998

- We should stick to LEP2 data, mainly due to space considerations
- Dieter proposes not to rewrite all analysis utility routines of ALPHA (such as QIPBTAG), but instead to interface the C++ code with FORTRAN routines of the ALPHA library which take the information from the BOS common. This is filled by C++, reading the Objty database
- A study of existing solutions (such as track classes, event classes etc.) should be performed, e.g. CLHEP, BABAR. Giuseppe volunteers for that.
- Somebody should try to interface our databse with IRIS EXPLORER
- It is likely that the list of really needed banks (for standard analyses) will correspond to the list of banks which enters the new MINI definition (to be released next week). In the meanwhile we can stick to the POT list. (Note : WW analyses are **not** standard analyses)
- The compiling should be optimized, possible experts: Bjorn Nilsson, Dirk
- The S list and some scanbook information should be added to the current version of the database and reading programs. Guenther will take care of this.
- Dieter will check how to replace the standard ALEPH track banks with banks which only contain 4-momentum information
- Somebody should study the possibility of writing the compressed BOS banks to the Objty database and to do the unpacking only after reading.
- It has become clear that the database has to contain tag objects, since the LHC++ environment (e.g. Iris explorer) is based on this tag idea
- For the future compiling, the dependency structure will be studied carefully
- Some more or less scanbook equivalent should be inside the FD

- F.Ranjard has a pool of personal federation IDs (MYFDID) which are needed to run the LHC++ installation
- It will be necessary that users get write access for special areas of the FD in order to store histograms or to define some personal classes (DDL's) for analysis
- Already now one could store the databases on shift50 and see them from any other machine if an ams server is running. For the full implementation of objectivity and our code on ALPHA we will wait a little more.
- If an ams server is running on some machine, than the databases could be accessed from any other machine, so we wouldn't have to all log on hpplus19. Dirk will help to set up some script which automatically renews the afs token (which otherwise would cause problems for the ams on afs)
- Dieter has done some timing studies which are rather encouraging. They might appear on a Web page to be created (possibly by Guenther), where also other information about this project should be put.
- Marco is studying a possible OO framework for analysis of LHCB data. If our framework is produced in a very "experiment-transparent" way, it could be used also there.

  The BABAR framework is rather elaborated, based on the idea of modules. We should have a look at it. The question is if we really want to stick to such a model or rather to a model which is based on the inheritance approach. The latter is simpler to implement, Dirk has already some experience.
- The new version (5) of Objectivity/DB will support persistent STL. It will be available on HP within a month or so.
- The list of requirements has been updated and discussed
- Since we have a list of requirements, we should enter the analysis phase. Whoever is interested, should start to think about what the entities in our problem domain are (such as Run, event, loopers etc.), what their attributes and relationships are. In a next meeting we can discuss then about the various findings.