

## Applications Area

### LCG Phase 2 Plans and Schedule

10/31/2005

ID	Date	Milestones: Description and Verification	Status Progress	Notes Comments References Hyperlinks Dependent Milestones
<b>SPI</b>				
SPI-1	31.12.05	Provide the tools for generating CMT and SCRAM configurations from a common generic configuration description based on XML description files. Be able to update the web and distribution's kits from the same description.		
SPI-2	28.02.06	Provide a web based "user discussion forum" service interfaced with Savannah. This new service should allow projects and experiments to easily setup and manage discussion subjects.		
<b>ROOT</b>				
ROOT-1	30.09.05	Make available prototypes addressing different topics for the SEAL+ROOT merge (Math libraries, Dictionary libraries, etc.) such that detailed planning for the experiments migration can be established. These prototypes should be available by the ROOT workshop at the end of September.		
ROOT-2	30.09.05	Demonstration of the new the Parallel ROOT facility (PROOF) in a cluster of 32 CPU's provided by CERN/IT. This new version of the system should include asynchronous queries, GUI session controller, interactive batch mode.		
ROOT-3	30.09.06	Demonstrate the performance and robustness of the PROOF system on typical analysis clusters of up to several 100 CPU's under a typical multi-user load doing typical LHC final data analysis on ESD and AOD data sets.		
ROOT-4	31.12.05	Finalization of the fitting and minimization application programming interfaces and integration of the new C++ implementation of Minuit in the ROOT release.		
ROOT-5	31.03.06	The Python interface to ROOT (PyROOT) adapted to directly use the new C++ reflection library (Reflex). This would avoid the intermediate software layers and additional dependencies of the current implementation, improving the overall design and maintainability.		
ROOT-6	30.04.06	The ROOT C++ interpreter (CINT) adapted to use the new C++ reflection library (Reflex). Applications will require a single dictionary with reflection information in memory. Backward compatibility will need to be provided to old ROOT and POOL applications.		
ROOT-7	31.10.06	Complete the merge of SEAL and ROOT functional components into a single set of libraries. All the functionality provided by the existing SEAL libraries will be available in the new set of libraries. End-users if they decide to do it. (experiments) can abandon the old libraries.		
<b>POOL</b>				
POOL-1	31.10.05	Production quality release of the relational database API (RAL) package, which should include the new interface recently reviewed.		
POOL-1	31.12.05	POOL framework based on new C++ reflection libraries (Reflex) available for the experiments to be used in production. Validation by the experiments completed.		

**COOL**

<b>COOL-1</b>	<b>30.11.05</b>	Conditions Database (COOL) release based on the latest version of RAL including bulk insertion operations and extended tagging functionality.		
<b>COOL-2</b>	<b>31.12.05</b>	First prototypes of API and command line tools for data extraction and cross-population of COOL databases. These tools are important for supporting partial or complete distribution of the experiment's conditions databases with several databases technologies.		
<b>COOL-3</b>	<b>31.03.06</b>	POOL overall performance study and validation of the experiments requirements. This study should identify the areas that will require further work and optimization.		

**SIMULATION**

<b>SIMU-1</b>	<b>15.12.05</b>	Apply the Fluka-Geant4 (Flugg) geometry interface to one of the LHC calorimeter test-beam simulation.		
<b>SIMU-2</b>	<b>15.12.05</b>	Production quality release of the MC generator level production framework.		
<b>SIMU-3</b>	<b>20.12.05</b>	New Geant4 public release including positron annihilation and geometry voxelisation improvements in addition to the regular bug fixes and small improvements included on each release.		
<b>SIMU-4</b>	<b>31.12.05</b>	First results of the ATLAS combined and 2004 test-beams data comparisons.		
<b>SIMU-5</b>	<b>31.03.06</b>	Monte Carlo event generator files database (MCDB) publicly available and able to deal with large files.		
<b>SIMU-6</b>	<b>31.10.06</b>	First release of a common framework for handling MC truth information to be used by experiment's simulation programs.		
<b>SIMU-7</b>	<b>31.10.06</b>	Validation of shower parameterization packages completed. The results of the validation should be summarized in a document.		