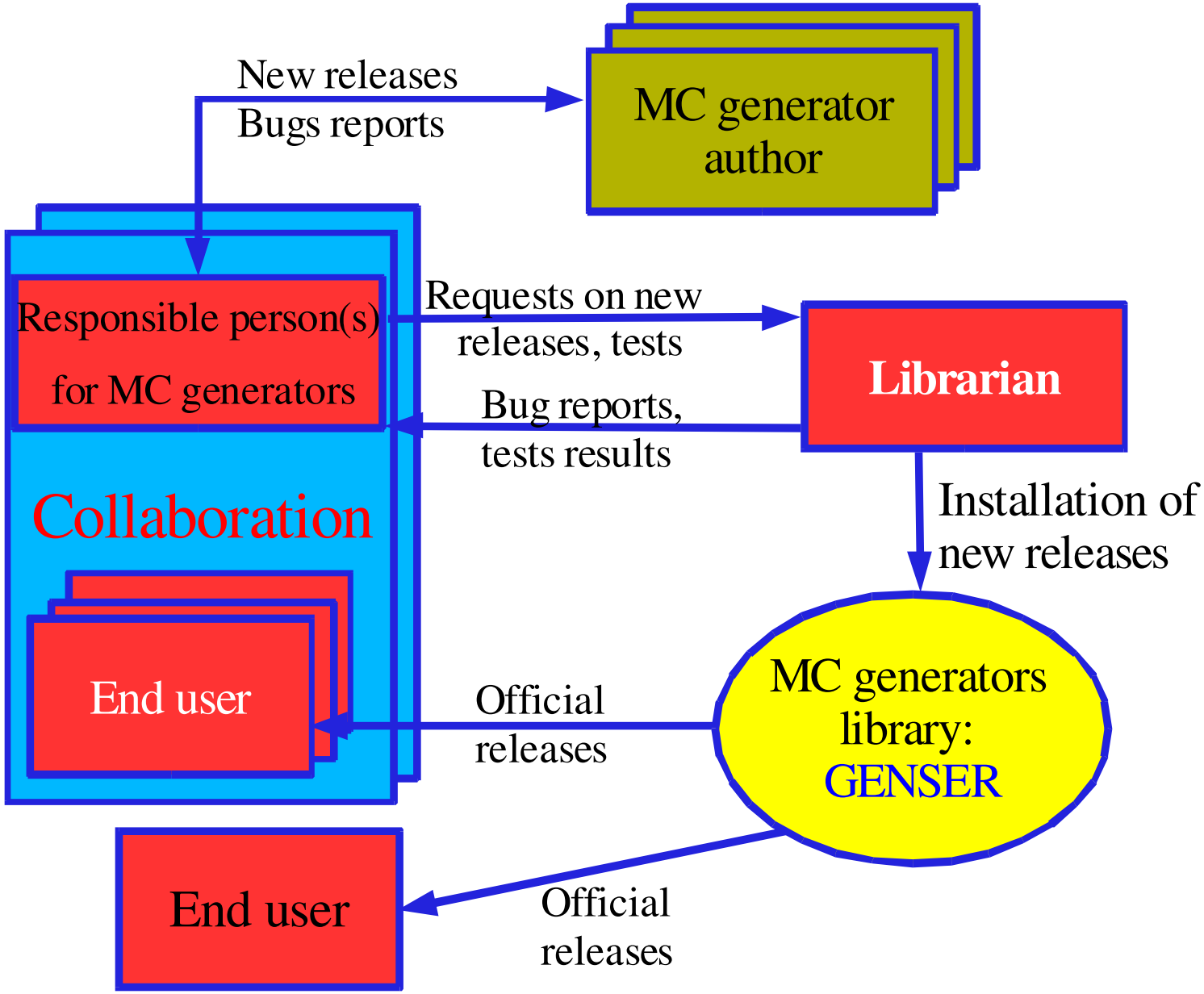
GENSER Project. Status at 31.07.2003

Sergey Makarychev, Alexander Sherstnev
the LCG project

- New version of GENSER (Generators Services) has been tested
- ISAJET was added (HERWIG, PYTHIA included)
- Libraries have been compiled (shared, static)
- All examples are working
- Documentation started
- Simu_0_0_1 released in CVS (**lcgapp.cern.ch:/cvs/simu**)
- Platform: rh73_gcc2952

Preliminary scheme of working with GENSER, as a generator library



Advantages of GENSER

- All software could be kept in one place
- New releases could be easily implemented
- Old versions will be supported as well
- Easy to use: installation would be very simple
- Everything will be tested so it should work perfectly on different platforms
- Communication with responcible persons, not directly to the authors
- Support and maintanance

Tasks of the GENSER librarians

- Installation and testing of a new generator release in GENSER, prepared by a collaboration:
  - install the release code and the tests suite in a standard manner (developed in cooperation by the collaboration and our GENSER team).
  - carry out the tests and inform all collaborations about the tests results and bug reports.
- Installation a generator release as an official release in GENSER for given collaboration:
  - install the official release to GENSER in a standard way.
  - make a new release of GENSER.
- Clean-up and maintaince of GENSER. The librarian should remove all releases which are obsolete and not needed in LHC collaborations in the nearest release of GENSER.
- Librarians have to cooperate with all LHC collaborations to develop appropriate install/store procedures of the MC generators in GENSER.

GENSER, as a developer environment.

- In future GENSER can be transformed to a development environment. The authors of MC generators can use GENSER CVS repository for development of the MC generators code.
- Advantages of such the repository:

  MC generators authors will have a convenient environment for development.

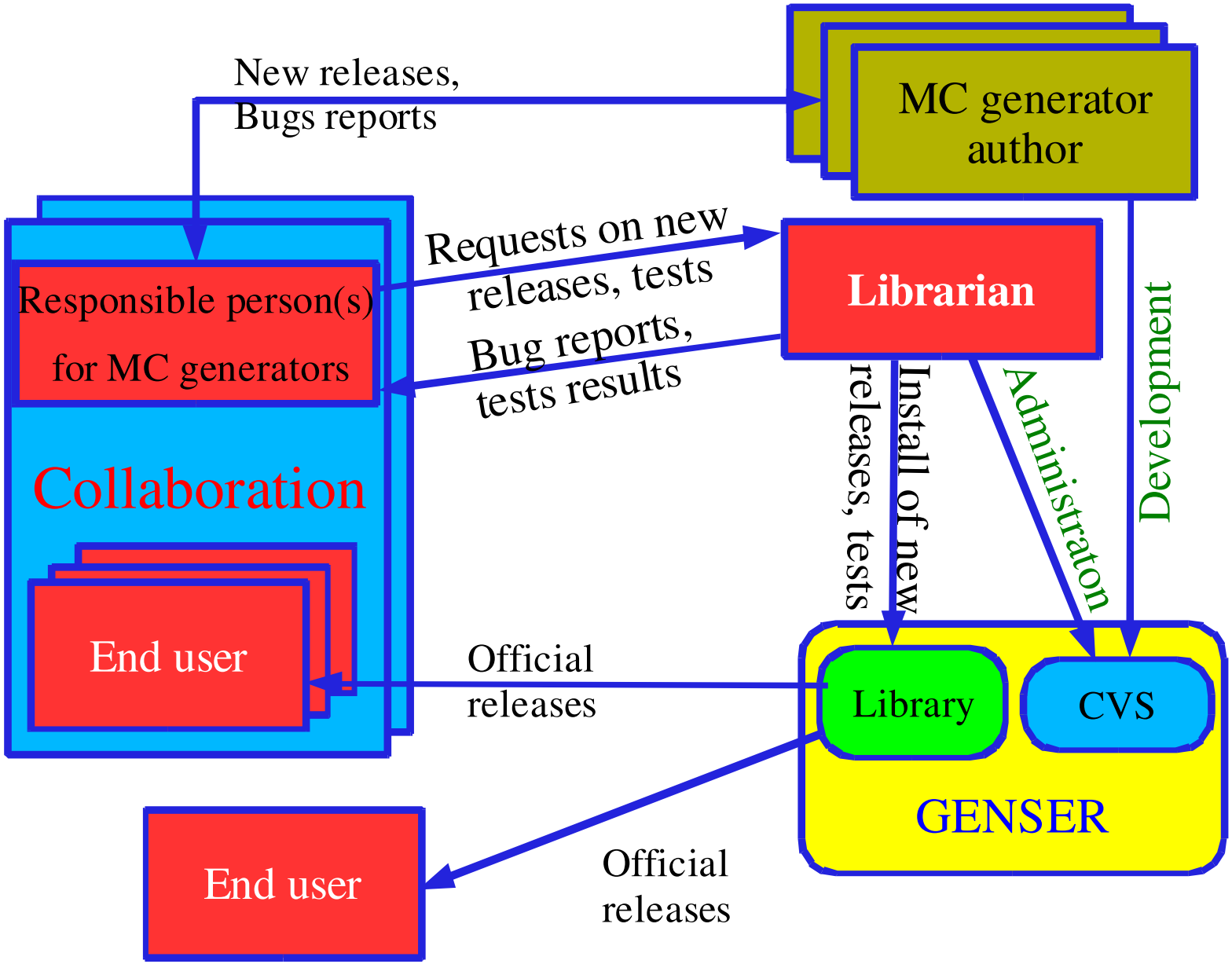
  The authors will have a rapid feedback from users at LHC.

  Collaborations will receive new releases of necessary MC generators quickly with, maybe, taking into account of some suggestions by the collaborations (generator structure, user interfaces, documentations, etc.).

- GENSER will be based on the SCRAM technology.

- For end users GENSER will be presented as an usial SCRAM project.

Possible scheme of working with GENSER, as development environment



The current structure of GENSER

Simu_X_X_X/

- Config/
- $platform/
  - Bin/
  - Lib/
  - Tests/
- Src/
  - GENSER/
    - PYTHIA_XXX/
      - Include/
      - Src/
      - Tests/
      - Examples/
    - HERWIG_XXX/
    - MCDB/
    - ...

LCG policy on project code structure

Futher plans:

- Now our main task in the GENSER project is to collect opinions and suggestions of all LHC collaborations and theoretical groups about:

  Cooperation between MC generators authors/experts (in and out of LHC collaborations) and our GENSER team.

  Understand possible ways to include GENSER in collaborations software environments.
- Add new generators in our repositary in CVS: ALPGEN, EVTJEN, HEPMC, HEPPDT
- Documentation for the end-user
- Different tests on other platforms

Milestone has been achieved!

Alpha version of GENSER could be issued.