Software Management

Status and Plans

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- Software Version Control
- Development Environment
- Problem Report
- Releases and Distributions

- Based on CVS with pserver remote access.

- Provided also an alternative use mode via SCVS, a very thin layer on top of CVS aimed to simplify its use and tailor it on the Virgo Software development specificity.

- CVS archive accessible via WEB at:
  http://wwwcascina.virgo.infn.it/cgi-bin/cvsweb/cvsweb.cgi

- Status
  - **The Virgo Control SW is almost all stored in the Cascina archive.**
  - **Few Data Analysis software packages still missing.**
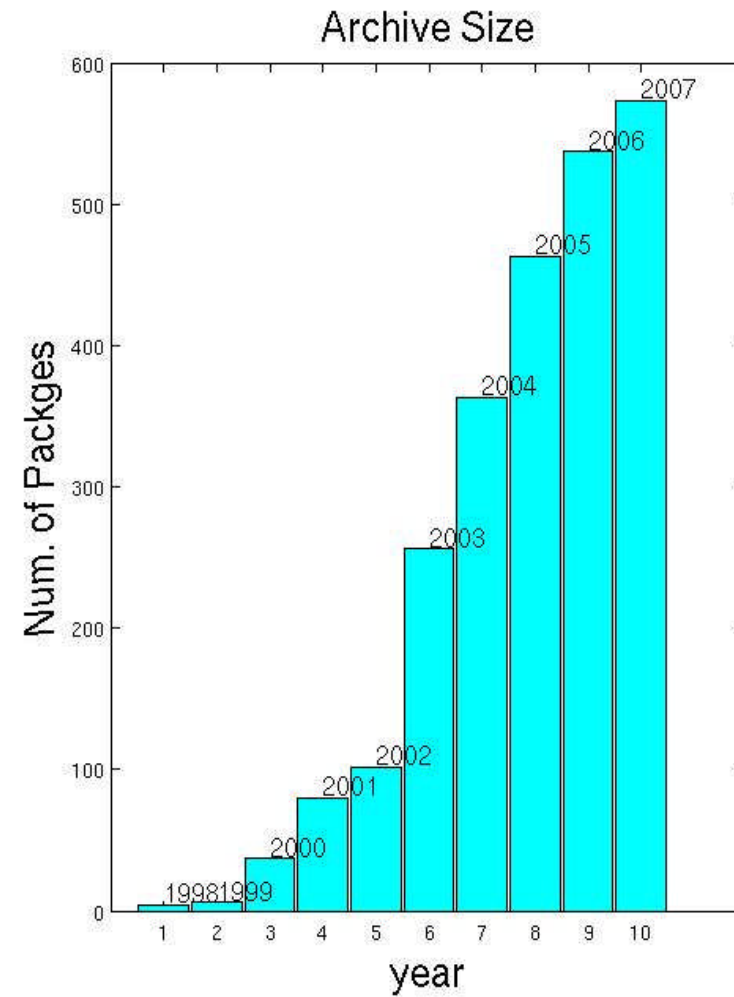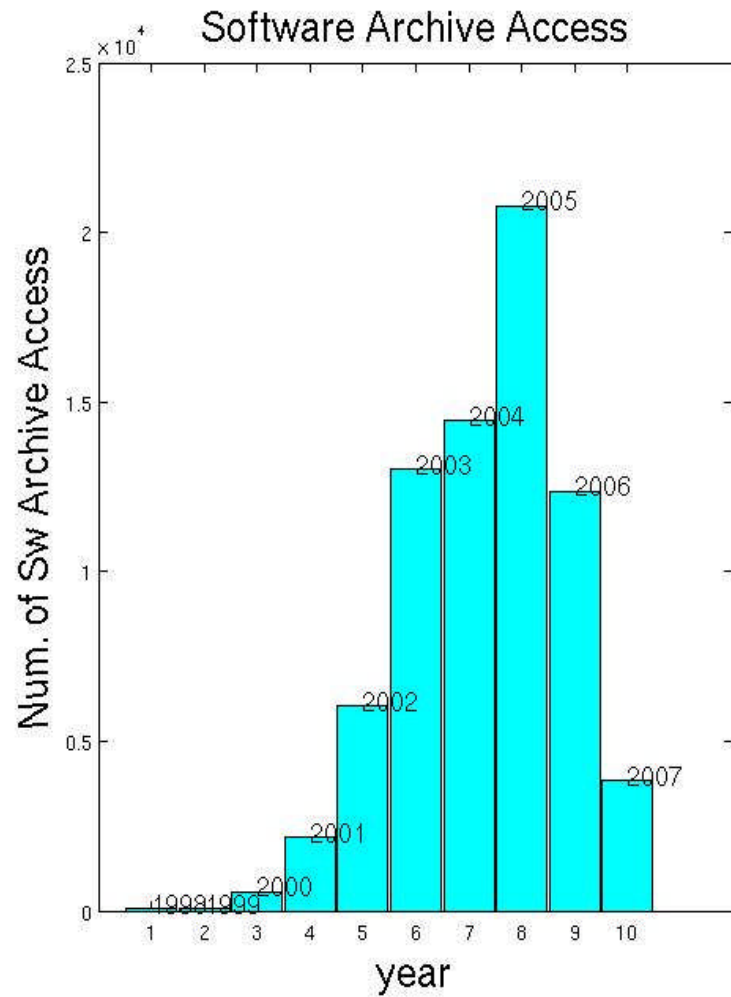
- A standardized development essential requirement to manage different people in different sites.

- Such standardized environment has been obtained using the tool CMT

- CMT provides all key elements of a development environment:

  - **structured make usage**

  - **easy encapsulation of third party tools and libraries**

  - **standardization of the UNIX environment set-up of every Virgo user.**

Software Problem Report (SPR)

- Provides an easy standard avenue for users and testers to report bugs and for developers and maintainers to fix them and track them in an orderly fashion.

- Very simple interface and SPRs lifecycle to avoid that developers end up in spending more time on the bug tracking system than on the bugs or the projects themselves.

- A central database with Web and email interface to submit, query, modify SPRs (implemented using WREQ)
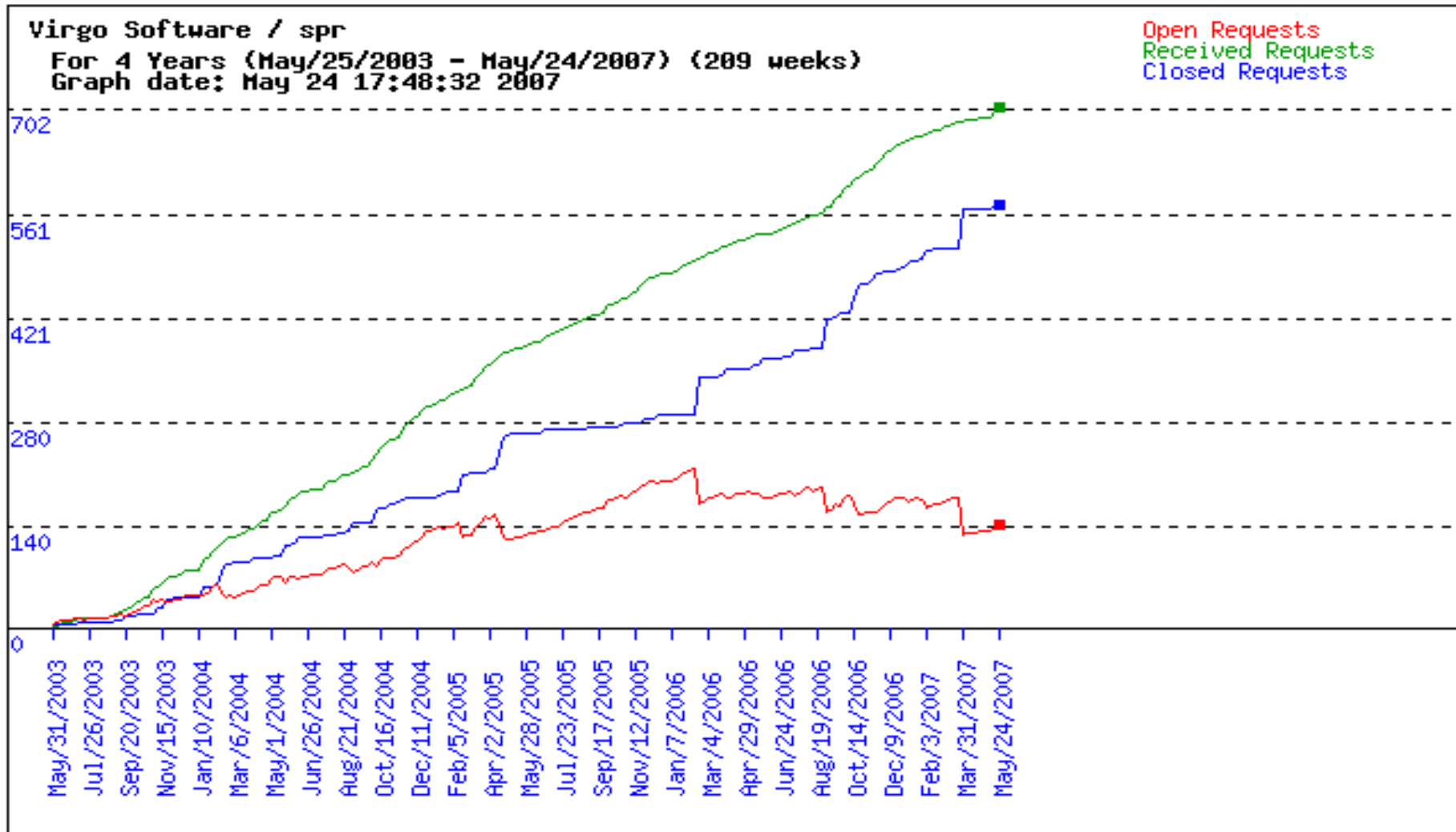
- Available at:

    - http://pub2.virgo.infn.it/cgi-bin/wreq/req

Software Problem Report Statistics

Received: 702   **Closed: 561**   **Still Open: 141**

Releases and Distributions

- Slow upgrade cycle (3-6 months) for Major Releases, on demand for Minor Releases

- Tested for non-regression

- Uniquely identify all components (O.S., tools, external packages, Common Software) needed as development or operational platform of an application.

- Provide the explicit Integration Plan

- Heavily relying on the Virgo Test Facility (VTF) for the build and test phase

- Definition and distribution of five releases, from VCS-1.0 (Feb 2004) to VCS-5.0 (Mar 2007)

- Since the beginning of VSR1 marked a turning point for the Virgo Software a separate Data Analysis Release cycle and Distribution (disentangled from the Control Software one) is under definition

- For all the code in operation during the Science Run on the interferometer (including on line Data Analysis running on site and DSP Code) stable code is to be frozen
- Status:
  - **Injection, Suspension, EnvMon, Vacuum, Gc frozen on top of VCS-5.0 baseline**
  - **DAQ, Detection, Detector Monitoring frozen on top of a newer set of basic packages**
- Still ongoing:
  - **freeze of Online Data Analysis chain**
  - **Few remaining (hopefully!) minor fixes and installations**
  - **It should be worth introducing a VCS-5.1 as the snapshot of the VSR1 software and for CMT dependencies cleanup**
- For the Data Analysis distribution to be derived it would be important upgrade all Virgo depending tools to root v5.14.00