CMS SOFTWARE INSTALLATION

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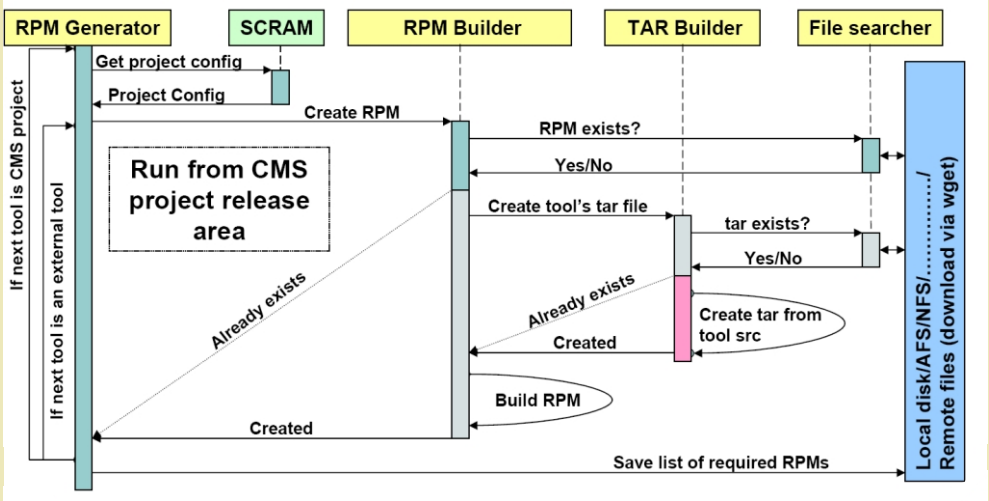
The RPM Generation



RPM generation procedure:
- Start with one parent project based on CMS project release area at CERN
- Check consistency of SCRAM project configuration (skipped for external tools)
- Check whether RPM exists already
- If not, check whether tar file exists for this tool
- If not, create tar file
- Build RPM
- Repeat for all projects/tools on which the parent project depends
- Save list of dependencies for parent project

RPMs successfully tested for:
- RedHat 7.3
- CERN RedHat 7.3
- Fermi Linux 7.3.1
- Mandrake Linux 9.1
- SuSE Linux 8.2, 9.0

An Installation Example

```
CmsSwGridInstall.pl
   -t rpm --site fzk.de
   --install "ORCA_8_4_0 OSCAR_3_4_0"
```

Default installation path CMS_PATH: $VO_CMS_SW_DIR/cms
VO_CMS_SW_DIR is the software installation area for the CMS virtual organisation on grid sites in LCG

Executable (lcg_install_sw.pl):
- Check on $VO_CMS_SW_DIR
- Check disk space
- Check against installed software
- Call cmsi.pl
- Copy cmsset_default.(c)sh to $VO_CMS_SW_DIR
- Publish new software (lcg-ManageVOTag)

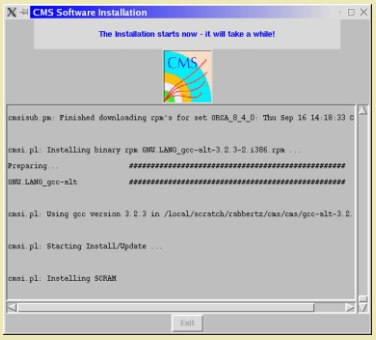
Grid-specific installation part:
- Find compute element (CE)
- Prepare tar.gz archive of xcmsi
- Prepare executable to submit
- Prepare job description file (jdl)
- Submit jdl file (edg-job-submit)
- Start job monitor to fetch output after completion

Grid monitoring of fzk.de

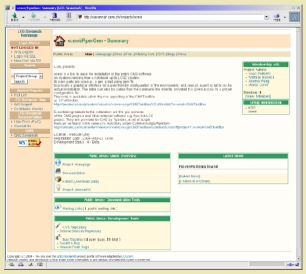
```
cmsi.pl
   -f cmsset_default.csh
   -d "ORCA_8_4_0 OSCAR_3_4_0"
```

Default installation procedure:
- Parse configuration file cmsset_default.csh
- Copy system RPM database (to avoid root privileges)
- Download RPM lists for selected installs from CERN
- Prepare lists of RPMs to be installed
- Check compiler strategy (binary RPM, system compiler, ...)
- Start installation of: GCC compiler, SCRAM, LCG, CMS RPM packages
- Final corrections

Logging window of graphical installation mode



Bug Reporting System



http://savannah.cern.ch/projects/xcmsi

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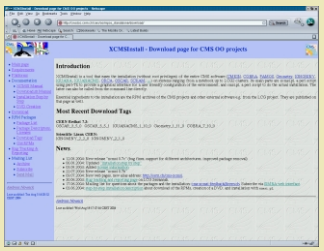
http://cern.ch/cms-xcmsi