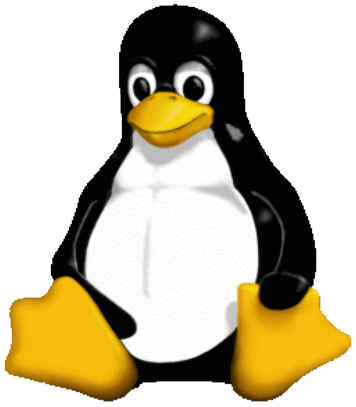

Scientific Linux DESY
Update, Technicalities, Time Scales

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SL Update

- SL3 was presented in DLUM on April 21st
- message was: very similar and compatible to DL5 in most respects, long lifetime => it could be a continuation of DL5
- what happened since:
  - CERN Enterprise Linux 3 was merged into SL
    - CEL3 now is an SL3 "site", called "Scientific Linux CERN 3"
      - under certification
    - CERN also contributed amd64 and ia64 builds
  - proposal to standardize on SL3 was submitted to LCG/EGEE during the HEPiX spring meeting
  - SL3 was presented to the CUC on August 2nd

Status of "Scientific Linux DESY 3"

- repository mirrors exist in HH and Zn
- test installations were done in HH and Zn
- a public preview system exists: sl3.ifh.de
  - allows login for all accounts enabled for Zeuthen
  - result of automatic installation/maintenance
  - looks a lot like DL5
  - DESY software installed from DL5 packages
    - (99% unchanged)
    - software updates typically lag behind a bit (sheer lazyness)
- status web page is http://www-zeuthen.desy.de/linuxsl3

What "looks a lot like DL5" means

- fully integrated with AFS, Kerberos, NIS, LDAP, amd, ...
- AFS sysname is a list (for the 1st time)
  - 'i586_rhel30' 'i586_linux24' 'i386_linux24'
- shells execute the same dot-files as on DL5
- almost all DL5 standard software available
  - ini command is still missing
- default gcc is 3.2.3 as it comes with RHEL
  - default runtime libs are from this version as well
- some system packages are missing (not available on RHEL)
- some are not available in the same version as on DL5

gcc

- unfortunately, version numbers don't mean anything on RHEL
- their gcc 3.2.3 is more similar to a 3.3.3 release than a 3.2.3 release
  - from the size of the diff -urN output against both releases
  - even contains code from gcc 3.4
- their libstdc++ does not provide all ABI versions our DL5 version does
  - but this seems to affect rare corner cases only
  - ROOT and ROOT based application built on DL5 work with it
  - building on SL3 against DL5 ROOT libs works as well
  - => we don't intend to replace any system libraries

missing packages

- RH distributions always have been much leaner than SuSE
  - that's even more true for enterprise distributions
  - a number of applications we could simply install is missing
    - xv, doxygen, kile, lyx, gvim are a few of them
  - some may be available as packages from other sources
    - SL contributions
    - some SuSE packages can be used
    - some will have to be provided by us
    - but some gimmicks will not become available at all
- try the preview, and tell us what's dearly missed
- there seems to be no libc5

glibc

- again, the version is not too meaningful
  - 2.3.2, but provides 2.3.3 ABI
- major change w.r.t. DL5 is NPTL
  - Native POSIX Thread Library
    - no more handler thread
    - threads share PID, identified by TID
    - differences in signal handling
  - should be backward binary compatible
    - but rumours say some apps must be recompiled all the same
- try your multithreaded applications on the preview asap
  - check the status web page for pointers to NPTL reading

Deliberate changes planned

- generally, as few as possible
  - unless they enhance compatibility with other labs, GRID, ...
- but we'd like to drop the HEPiX11 environment
  - NOT the whole of the HEPiX login scripts
  - just the part dealing with the window manager
- instead, provide KDE (and possibly GNOME) as is
  - maybe a few minor enhancements of default settings
  - maybe also some lightweight window manager coming with RHEL
    - again, as is
  - note fvwm is not part of the distribution
- objections?

Upgrade to DL5 or not ?

- yes, do it now
- SLD3 will take a while to finish
- DL5->SLD3 migration is a much smaller step than DL4->DL5
- major change is gcc3 for C++ code
  - you have to make that step anyway
  - your reward will be a 5% performance improvement
- for once, we have enough time to prepare the next linux
  - because we move to a long lived distribution
  - upgrade to SLD3 should merely be a 30 minute interruption
    - if you have to repartition for DL5, you'd have to for SLD3 as well

Time Scales

DL5 lifetime extended by SuSE 9.0 patches
Full Support
Deployment Support
Maintenance Support
Preparation Phase