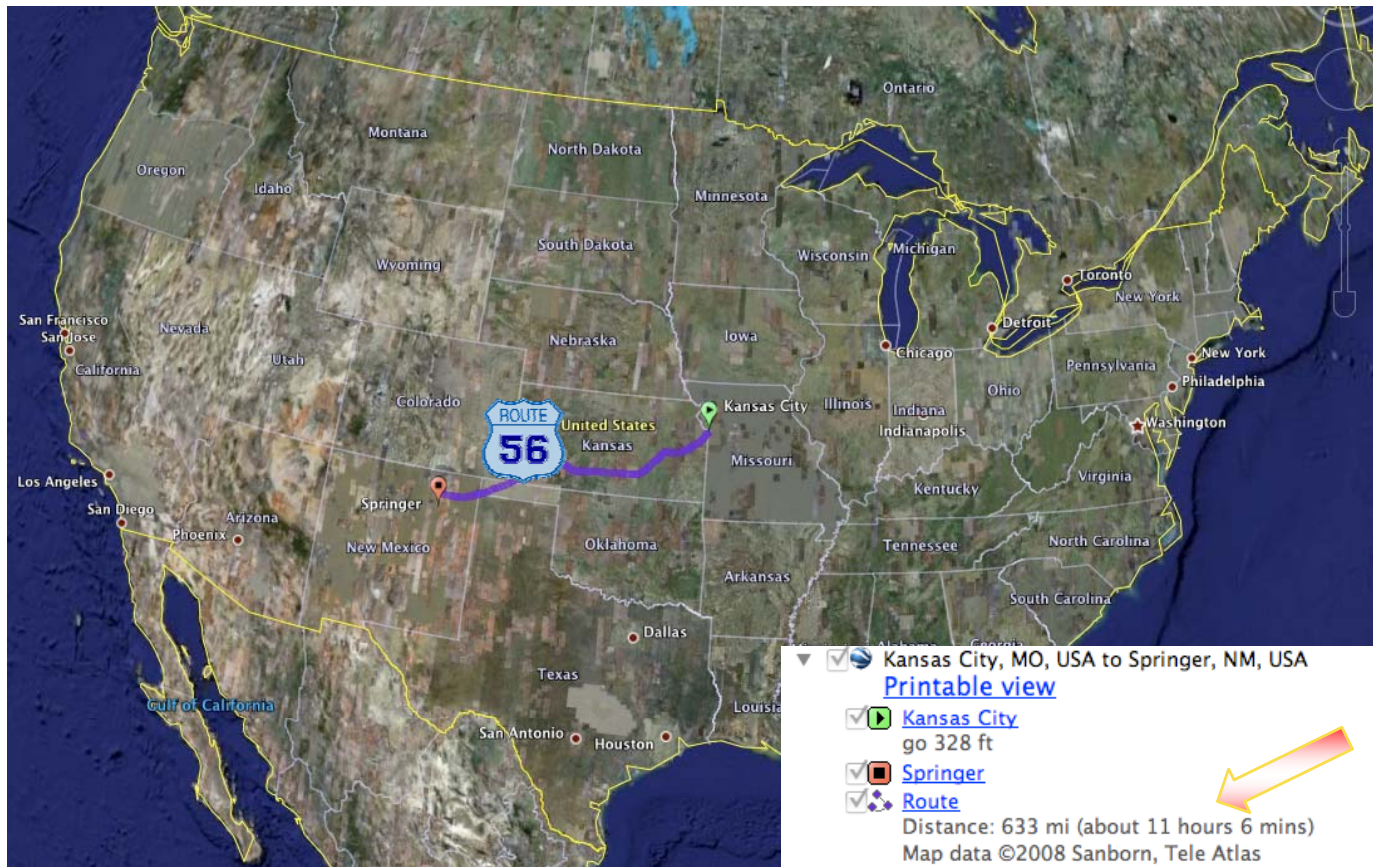# On the road to LCG 56

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PH/SFT

A bit of geography …

LCG Configuration 56

- Candidate for next year production

- Including several changes
  - New platforms / compiler
    - slc5, gcc 4.3, vc9
  - Project upgrades / fixes
    - Eg. Root 5.22.00
  - "External" software upgrades
    - Boost, Qt, …

LCG 56 – platforms

- **New platforms / compilers**
  - **slc5**
    - Two virtual machines running (32 / 64 bit) -> producing gcc 4.3 builds
    - Externals are used through symlinks –> re-compilation needed
  - **gcc 4.3(.2)**
    - All projects successfully compile
    - All externals re-compiled (on slc4)
  - **VC 9 (Visual Studio Express)**
    - Still problems with the build machine
    - Status after CINT STL fixes is pending

slc4_ia32_gcc34
slc4_ia32_gcc34_dbg
slc4_amd64_gcc34
slc4_amd64_gcc34_dbg
NEW slc4_ia32_gcc43
NEW slc4_ia32_gcc43_dbg
NEW slc4_amd64_gcc43
NEW slc4_amd64_gcc43_dbg
NEW i686-slc5-gcc34-opt
NEW i686-slc5-gcc34-dbg
NEW i686-slc5-gcc43-opt
NEW i686-slc5-gcc43-dbg
NEW x86_64-slc5-gcc34-opt
NEW x86_64-slc5-gcc34-dbg
NEW x86_64-slc5-gcc43-opt
NEW x86_64-slc5-gcc43-dbg
osx105_ia32_gcc401
osx105_ia32_gcc401_dbg
win32_vc71_dbg
NEW i686-winxp-vc9-dbg

LCG 56 – packages

- **Project upgrades / fixes**
  - Two Root releases foreseen
    - Dev release 5.21.05 on Nov. 26 - for LCG56-pre ?
    - Pro release 5.22.00 on Dec. 18
  - Other minor project changes
- **External software upgrades**
  - Most notably Boost 1.37 and Qt 4.4.3
  - More upgrades – mostly because of gcc 4.3

LCG 56 – configuration

- Use new cmt version
  - To be released today – we will use it ASAP
- Use of new tag names
  - Implementation in LCGCMT done
    - Used only for "new" tag names
    - e.g. i686-slc5-gcc43-dbg, x86_64-slc5-gcc34-opt
  - Including a "backward compatibility layer"
    - To be decided when this will be removed
  - Next steps
    - convert LCGCMT + cmt based projects
    - CMT based LHC projects are encouraged to move aswell

LCG/AA nightly builds

(as of today)

problem with reference files ✔

rebuild mysql / slc5

rebuild frontier client / slc5

Wednesday Slot : dev (preview) w... ...towards LCG 56

Project	Version	slc4_ia32_g... ...bg (Wed Nov 19 0... ...2008)	slc4_ia32_gcc43_dbg (Wed Nov 19 06:09 2008)	slc4_amd64_gcc34_dbg (Wed Nov 19 03:41 2008)	slc4_amd64_gcc34 (Wed Nov 19 05:20 2008)	slc4_amd64_gcc43_dbg (Wed Nov 19 06:41 2008)	os... ...(Wed ... ...08)	..._dbg ...8)	i686-slc5-gcc43-dbg (Wed Nov 19 10:55 2008)	x86_6... ...5-gcc43-dbg (Wed ... 19 09:57 2008)	win32_vc71_dbg (Wed Nov 19 04:00 2008)
LCGCMT	LCGCMT-preview	build / ...ts	build / tests	build / tests	build / tests	build / tests	build	build / tests	b... / tests	build / tests
ROOT	ROOT_today	build / tests (2)	build (137) / tests (2)	build / tests (2)	build / tests (2)	build (5) / tests (2)	build / tes...	build (139) / tests (3)	build (3) / tests (2)	build (1) / tests (3)
RELAX	RELAX-preview	build / tests	build (1) / tests	build / tests	build / tests	build (1) / tests	build / tests	build (1) / tests	build (1) / tests	build (47) / tests (7)
CORAL	CORAL-preview	build / tests	build (2) / tests	build / tests	build / tests	build (2) / tests	build (2) / tests	build (6) / tests	build (6) / tests	build (260) / tests
POOL	POOL-preview	build / tests (50)	build (258) / tests (51)	build / tests (50)	build / tests (50)	build (258) / tests (50)	build (7) / tests (50)	build (258) / tests (50)	build (260) / ...s (50)	build (176) / tests (52)
COOL	COOL-preview	build / t...ts (1)	build / tests (1)	build / tests (1)	build / tests (1)	build / tests (1)	build / tests (1)	build (2) / tests (1)	build (2) / ---	build (39) / tests (44)
GAUDIATLAS	GAUDI_ATLAS	build (114) / ...s (57)	build (135) / tests (...)	build (164) / tests (57)	build (164) / tests (57)	build (137) / tests (57)	build (114) / tests (57)	build (136) / tests (57)	build (13... / ...ts (57)	build (62) / tests
GAUDI	GAUDI_HEAD	build (118) / ...s (81)	build (109) / tests (8...)	build (102) / tests (81)	build (102) / tests (81)	build (95) / tests	build (88) / tests (82)	build (101) / tests (81)	build (... / ...ts (81)	build (62) / tests
LCGTEST	LCGTEST-preview	build / ...ts	build / tests	build / tests	build / tests	build / ...s	build	build / tests (6)	... / ...ts (6)	build (4) / tests (1)

Platforms not ready: i686-winxp-vc9-dbg

memory corruption?

syntax error in test ✔

pyCool problem

test configuration problem ✔
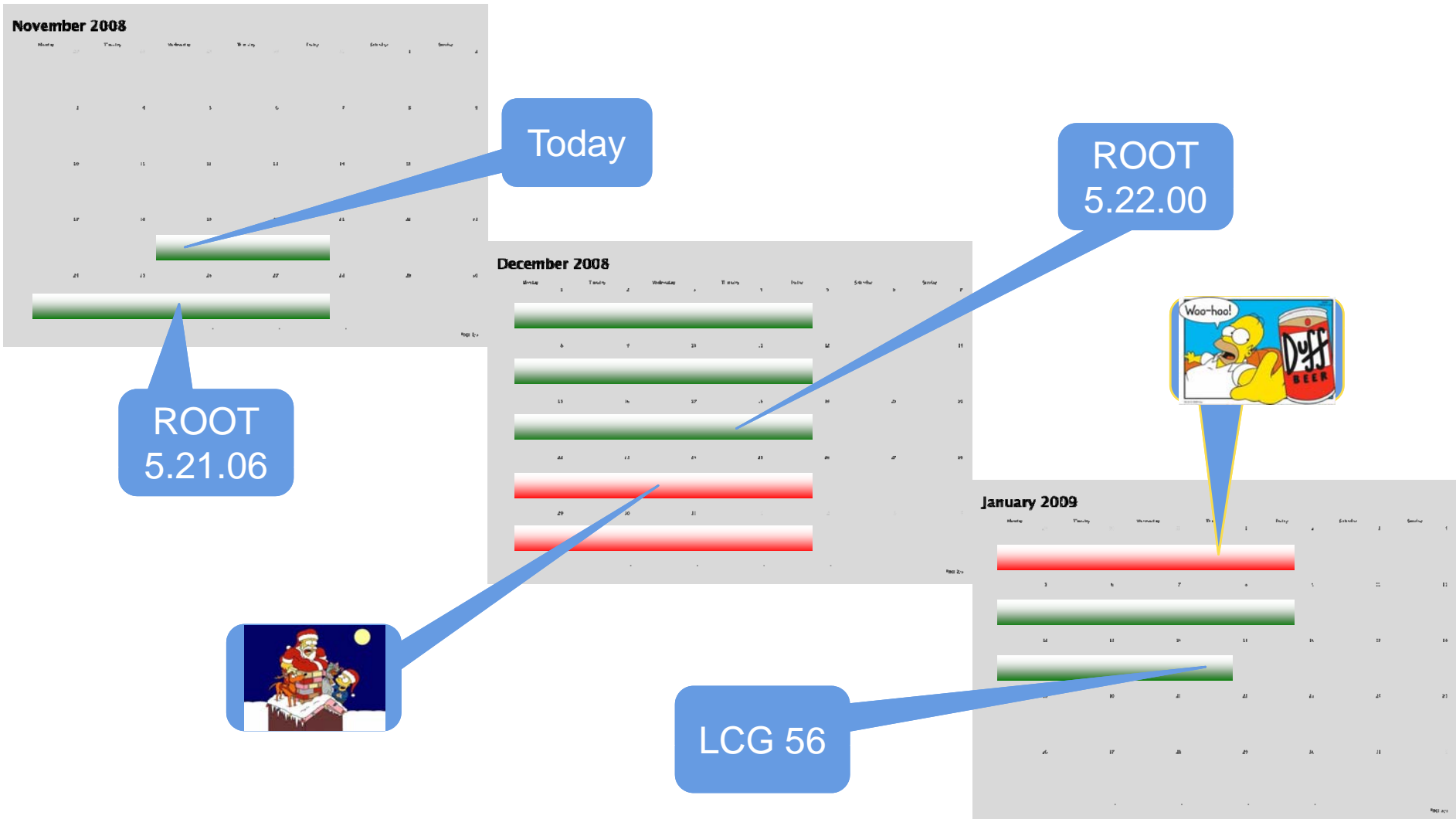
vc9 build machine fails

Todo list

1   New project releases

    1   ROOT dev + pro releases

    2   COOL, CORAL, POOL no major changes

2   Recompile external packages on slc5

3   Fix Windows builds – both VC7.1 and VC9

4   slc5 / gcc 3.4 builds

5   Use new cmt version

6   Apply new tag names for cmt based projects

Time line

November 2008

Today

ROOT 5.22.00

ROOT 5.21.06

December 2008

January 2009

LCG 56

Conclusion

The schedule is rather tight but feasible

Please check the nightly builds regularly