

Changing BMS_OSNAME

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Why change?

- No need to keep separate builds for containers vs. native OS
 - Tests show that identical results are obtained in four cases:
 - Build on native, run on native
 - Build in container, run on native
 - Build on native, run in container
 - Build in container, run on native
 - Saves on disk space
 - Less confusing
- Current name is too specific
- Current name is unwieldy

What are the proposed changes?

Node	Old BMS_OSNAME	New BMS_OSNAME
markdesk5.itodomain	Linux_Fedora35-x86_64-gcc11.2.1	Linux_Fedora35-gcc11.2
jlabl5.jlab.org	Linux_RHEL8-x86_64-gcc8.5.0	Linux_RHEL8-gcc8.5
jlabl4.jlab.org	Linux_RHEL7-x86_64-gcc4.8.5	Linux_RHEL7-gcc4.8
ifarm1802.jlab.org	Linux_CentOS7.7-x86_64-gcc4.8.5	Linux_CentOS7-gcc4.8
markdesk5.itodomain.sing_c7	Linux_CentOS7-x86_64-gcc4.8.5-cntr	Linux_CentOS7-gcc4.8

Add caption

- Drop minor version number of distribution (e.g., CentOS7.7 -> CentOS7)
- Drop architecture field (e.g., x86_64 -> nothing)
- Drop sub-minor version of compiler (e.g., gcc4.8.5 -> gcc4.8)
- Drop container suffix (e.g., -cntr -> nothing)
- Keep OS type (i.e., Linux) [or not?]

How is the change done at JLab?

- Install the new version of Build Scripts
- Philosophy: keep the old-named build trees as they are, use soft links to create new-named directory structure
 - Avoids large-scale rebuild
 - Saves disk space
- Run [a script](#):
 - create gluex_top directories for the new names
 - e.g., /group/halld/Software/builds/Linux_CentOS7-gcc4.8
 - make package directories under gluex_top's for the new names
 - e.g., /group/halld/Software/builds/Linux_CentOS7-gcc4.8/halld_recon
 - create soft links to the built package directory pointing from the new name directories to the old name directories
 - e.g., Linux_CentOS7-gcc4.8/halld_recon/halld_recon-4.19.0 -> ../Linux_RHEL7-x86_64-gcc4.8.5/halld_recon/halld_recon-4.19.0
 - create soft links parallel to BMS_OSNAME'd subdirectories under the old-named package directories with new names pointing to the old names
 - e.g., Linux_RHEL7-gcc4.8 -> Linux_RHEL7-x86_64-gcc4.8.5
- New builds will be done in the new-named trees

What else needs to be done?

- New directory tree needs to be mirrored on Oasis
- Private builds of individual packages need conversion
- Maintainers of non-JLab/non-official GLUEX_TOP installations will have to convert their trees
- A script will be provided for conversion
- JANA needs patching going forward
 - JANA uses an on-board version of BMS_OSNAME-setting script (osrelease.pl)

Comments and Conclusions

- Conversion is reversible
 - Since existing trees exist almost without modification, going back to the old scheme means reverting Build Scripts
 - “Almost” here means addition of soft links with new names pointing to directories with old names in the old-named directories
- New system has been tested on a replica of /group/halld/Software/builds
 - b1pi test ran successfully off the replica
- Next[?]: drop the BMS_OSNAME'd directory inside built directories.
- Putting plan into action requires endorsement by the Software Group

