

Update of D0 Linux Cluster at LaTech

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D0RACE

1/17/02

History

- Until recently we had 9 Linux pc's, each with ~ 10-12 Gbyte.
- One of these (my pc) used as a test unit for a future cluster for D0 analysis at LaTech.
- Over a year ago, installed Fermi Redhat 6.1.1 Linux and a test version of D0RunII following H. Schellman's installation tutorial.

Recent activity

- Use languished during past year due to limited disk space and easy access to d0mino.
- Applied for & was awarded a grant for faster (1.7 GHz) and bigger (40 GByte) pc for D0 analysis
 - will make it the cornerstone of a local D0 analysis cluster

During December while waiting on the new unit...

- Do fresh install of Fermi Redhat Linux 7.1.1 (get from Connie Sieh) on old pc. Fermi version is good because it includes most of the stuff you need for ups/upd.
- Follow the same procedure that I used previously to do install of D0Run p10.11.00

Steps for D0RunII Installation

- Use Heidi's tutorial as a basic guide (<http://www-d0.fnal.gov/~schellma/linux/>)
 - Create /d0dist/dist/ & /d0usr/products
 - ftp a barebones configuration for each of these from <http://www-d0.fnal.gov/d0dist/dist/tarfiles/UPSd0dist.tar.gz> & [~ tarfiles/UPSd0uprod.tar.gz](http://www-d0.fnal.gov/d0dist/dist/tarfiles/UPSd0uprod.tar.gz).
 - followed Heidi's instructions up to **Getting a real version of D0 code**

Steps for D0RunII Installation ...

- This includes getting current version of kai compiler (now free) :installed kai v4_0f -f Linux +2.2 -q “node-locked”
- switch to instructions of D. Casey
<http://www.pa.msu.edu/~casey/d0/d0codeinstallation.html>
- get ups products for main ups db

Steps for D0RunII Installation ...

- Upd install -h www-d0.fnal.gov D0RunII p10.11.00 -q dist -G' -c'
- follow D. Casey's instructions for updating ups db and D0RunII table.
- Use A. Duperrin's steps for ftp of D0RunII p10.11.00 binaries. This takes up 3-4 Gbytes now, so I had to extract the binaries I absolutely need from another linux pc.

Stopped work on old unit to install new machine during holidays

- New unit: Dell Dimension 4300, Pentium 4 1.7 GHz processor, 40 Gbyte hard disk
- Install (non-Fermi) Redhat Linux 7.2
- Install ups/upd with script plus generic configuration file. (thanks Mark Sosebee!)
- Use Heidi's tutorial again for d0dist/dist and d0usr/products db configuration

New Unit Installation

continued

- get new KAI node_locked license (still free!)...thanks to Qizhong Li for his help.
- perform upd installation of D0RunII p10.13.00 -q dist and D0RunII -f Linux+2.4 -q “Linux2.4-KCC_4_0” using John Ellison’s installation scripts...flawless!
 - the moral of the story: a good script, a good telephone line and a hefty hard drive makes all this a lot easier

Next....

- Try out D0RunII products: root and kai c++ work fine (i.e., Hello world!). Will try reco and mc_runjob when I get back. Upgrade to p11.00.00 soon.
- Install Redhat 7.2 on older unit.
- Try out Sam!