poltst0

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1 Introduction

poltst0 is a new server for DHCAL test bench. It is a dual boot SLC5.5 and UBUNTU LTS 10.04. It also embed a virtual WINDOWS.

Note: take care at kernel update to check grub use sda7 as root in file */boot/grub/menu.lst*:

```
title Ubuntu 10.04.2 LTS, kernel 2.6.32-31-generic
uuid a15e9963-3edf-4780-a876-aab29e6c6578
kernel /vmlinuz-2.6.32-31-generic root=/dev/sda7 ro quiet splash
initrd /initrd.img-2.6.32-31-generic
quiet
```

2 Partitions

```
# fdisk -l

Disk /dev/sda: 160.0 GB, 160000000000 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1               1          18      144553+  de  Dell Utility
/dev/sda2              19          30       96390   83  Linux
/dev/sda3   *          31          42       96390   83  Linux
/dev/sda4              43       19452   155910825    5  Extended
/dev/sda5              43          91      393561   83  Linux
/dev/sda6              92        2523    19535008+  83  Linux
/dev/sda7            2524        4955    19535008+  83  Linux
/dev/sda8            4956        7387    19535008+  83  Linux
/dev/sda9            7388        7995     4883728+  82  Linux swap / Solaris
/dev/sda10           7996       19452    92028321   83  Linux

Disk /dev/sdb: 250.1 GB, 250059350016 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1               1       30401   244196001   83  Linux
```

sda2	SLC	ext2	/boot
sda3	Ubuntu	ext2	/boot
sda5	unused		/boot
sda6	SLC	ext3	/
sda7	Ubuntu	ext3	/
sda8	unused		/
sda10	all	ext3	/data1 (homes)
sdb1	all	ext3	/data2 (unused)

3 Shared partitions

3.1 From Ubuntu LTS 10.04

/etc/fstab:

```
/dev/sda10 /data1 ext3 defaults 0 2
```

```
# ls -l /home
/home -> /mnt/data1/ubuntu/home

$ ls -l /home/nroche/Applications
/home/nroche/Applications -> /mnt/data1/ubuntu/usr
```

4 Dual boot

4.1 Scientific Linux Cern 5.5

Note that XDaq recommand 32bit OS and that SLC5.5 amd64 have troubles to move the mouse.

- Download the boot.iso.

  ```
  $ md5sum /dev/sr0
  eadcf980712389a687beb5df1230207c  /dev/sr0
  ```

- Unseselect ipv6 support
- Use HTTP repository:
  - *linuxsoft.cern.ch*
  - */cern/slc55/i386*
- Select "Server"
- At reboot: use "auth config" to desable "kerbeos" and "firewall" to disable "SELinux"

4.2 Ubuntu LTS 10.04

- Download the amd64's iso

  ```
  # aptitude install nvidia-current
  ```

- Install Grub for dual boot (insted of grub-pc):

  ```
  # aptitude purge grub-pc
  # rm /boot/grub/*
  # aptitude install grub
  # update-grub    (generate /boot/grub/boot.lst)
  # grub-install   (install /boot/grub/stage[12])
  ```

- Create the file */boot/boot.lst*:

```
default 1
timeout 3
color cyan/blue white/blue

title SLC5 64
configfile (hd0,1)/grub/menu.lst

title Lucid 64
configfile (hd0,2)/grub/menu.lst
```

- Tell grub to use it (you can also do it at boot):

```
# grub
> install (hd0,2)/grub/stage1 (hd0) (hd0,2)/grub/stage2 (hd0,2)/boot.lst
```

5 Windows XP

5.1 From Ubuntu LTS 10.04

- Install virtualBox:

```
$ cat /proc/cpu | grep svm (tell if cpu allow virtalization)
# aptitude install virtualbox-ose (Open Source Edition)
# aptitude install virtualbox-ose-dkms (for virtualization: Debian Kernel Management System)
# aptitude install virtualbox-guest-additions (for mouse caption between Linux and Windows)
$ VirtualBox
```

- use 892MB of RAM and 20GB for HD.
- Add serial port COM1 (unconnected).
- Iso are store here:

```
$ find /data2/VM
/data2/VM/xpkeys.txt
/data2/VM/shared
/data2/VM/iso/llrxpsp2.iso
/data2/VM/iso/office2003.iso
/data2/VM/snapshots
/data2/VM/vdisks/winxp.vdi
```

- *VBoxGuestAdditions.iso* should be automaticly provide into CD images.
- From VirtualBox, select the iso and run it into Windows.
- update Windows to SP3
- defined a shared folder using the GUI and copy into your SVN private key
- you should retrieve it from Windows into the “network favorite folders”

5.2 SVN into XP

- install PuTTy authentification agent (pageant)
- load the key and store it into the Windows format
- add a shortcut to pagent into the "Démarage" folder accessible from the "start/all applications" menu
- click once by session at the pagent icon on the right bottom and give your SVN password
- install TurtoiseSvn
- check out `svn+ssh://nroche@svn.in2p3.fr/calice/online-sw/trunk/pyserdiag`

5.3 Eclipse into XP

- install the SUN's java JRE.
- use yoxos to download Eclipse with following modules:
  - Eclipse C/C++ DevTools
  - PyDev Extension
  - PyDev for Eclipse
  - (Subclipse ?)
  - (Subversion Revision Graph ?)
  - (JavaHL 1.6.0 win32 binary ?)
- Load sources using "Import/General/Existing Project into Workspace"
- Open project using "Open perspective/PyDev"
- From "Configuration/Python Run" add *setup.py*:
  - Main:
    - Project: `pyserdiag`
    - Main Module: `{workspace_loc:pyserdiag/setup.py}`
  - Arguments
    - Program arguments: `build`
    - Working directory (Other): `${workspace_loc:pyserdiag}`

5.4 VisualC++ 2010 Express FR into XP

- Note that the English version may not match with a French Windows system.