
Xenomai 2.6.21 installation on Ubuntu 12.04 LTS
Original Kernel: 3.2.0.32
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Source files:

Xenomai source: xenomai-2.6.2.1.tar.bz2

Linux kernel source: linux-3.2.21.tar.bz2

General procedure:

1. Get xenomai and kernel sources
Tips: get a kernel source supported by Xenomai (see /usr/src/xenomai/ksrc/arch/x86/patches/) and as close as possible to the current kernel installed in the host system
2. uncompress files
3. apply xenomai patch
4. configure new kernel
5. compile and install new kernel
6. configure grub
7. reboot
8. install xenomai runtime
9. try the examples

Note:

PATH and LD_LIBRARY_PATH must be set properly. If the applications fail to compile/execute do:

```
$export PATH=$PATH:/usr/xenomai/bin/
```

```
$export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/xenomai/lib/
```

For a permanent solution configure the “.profile” or “/etc/environment” files accordingly.

Detailed procedure (all as root)

```
## it is assumed that xenomai and linux sources have been  
downloaded are at <SOURCE_PATH>
```

```
# Unpack sources  
cd /usr/src/  
tar xvjf <SOURCE_PATH>/xenomai-2.6.2.1.tar.bz2  
tar xvjf <SOURCE_PATH>/linux-3.2.21.tar.bz2  
ln -s linux-3.2.21 linux  
ln -s xenomai-2.6.2.1 xenomai  
cp /boot/config-3.2.0-32-generic-pae linux/.config
```

```
# Patch kernel
../xenomai/scripts/prepare-kernel.sh -arch=x86_64
--linux=/usr/src/linux
--adeos=/usr/src/xenomai/ksrc/arch/x86/patches/ipipe-core-
3.2.21-x86-5.patch

# Configure kernel
make oldconfig
make xconfig

    ## Make all changes indicated in
http://www.xenomai.org/index.php/Configuring\_x86\_kernels

cp .config /boot/config-3.2.21-xenomai

vi Makefile ## add "-xenomai" to extraversion

# Compile and install the kernel
make -j5 && make -j5 modules && make -j5 bzImage && make
modules_install
mkinitramfs -o /boot/initrd.img-3.2.21-xenomai.img 3.2.21-
xenomai
cp arch/x86/boot/bzImage /boot/vmlinuz--3.2.21-xenomai

# Configure grub
grub-mkconfig -o /boot/grub/grub.cfg

    ### Reboot and select xenomai kernel

# Install xenomai runtime
/usr/src/xenomai
./configure
make install

# Test xenomai
cd /usr/xenomai/bin
./switchtest
./xeno-test
...
```