Building a rt-preempt kernel for Debian Jessie - x86-amd64

There are currently no stock Debian rt-preempt kernels available for Debian Jessie. Building your own is not difficult providing you have a full development system installed. The sample instructions below cover the building of kernel 3.8.11 with rt patch no 7

The best way to approach this is to:

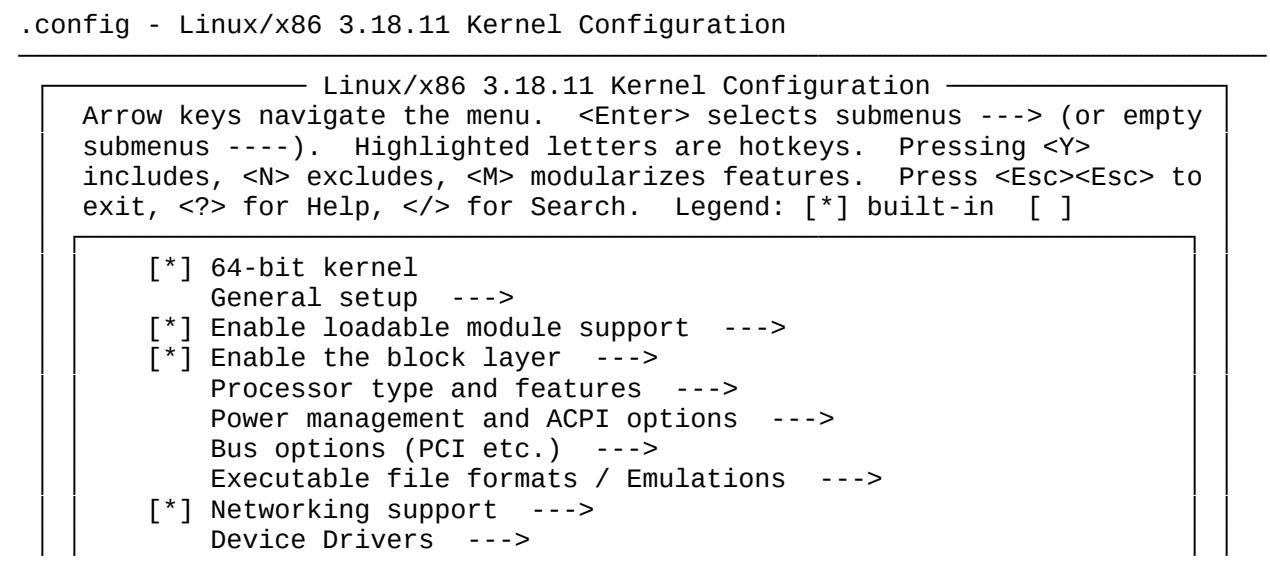
- Go to www.kernel.org/pub/linux/kernel/projects/rt/ and select the latest stable patch
- Then download the matching vanilla kernel from www.kernel.org
- Substitute the kernel version you have for 3.8.11 and the rt-patch version you have for 3.8.11-rt7 in the below instructions
- Cut and Paste this config to a file called .config in the root directory of the kernel sources. Meaning the `linux-3.18.11` directory that got created after unpacking. All the recent rt x86-amd64 patches up to kernel 4.4.9 have been tested and all worked well.

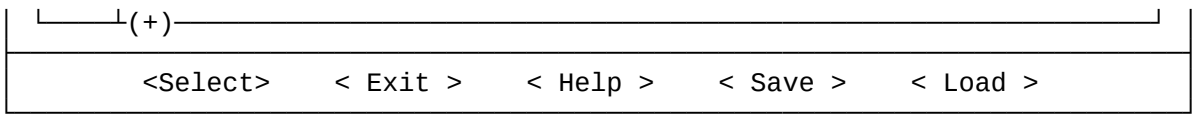
Commands from a terminal

- Commands below should be replaced with the kernel you looked for in the instructions above.

```
cd ~
sudo apt-get install build-essential libncurses5-dev
mkdir rtlinux
cd rtlinux
wget -c ftp://ftp.kernel.org/pub/linux/kernel/v3.x/linux-3.18.11.tar.xz
wget -c https://www.kernel.org/pub/linux/kernel/projects/rt/3.18/patch-3.18.11-rt7.patch.gz
tar -xpf linux-3.18.11.tar.xz
gunzip patch-3.18.11-rt7.patch.gz
cp patch-3.18.11-rt7.patch linux-3.18.11
cd linux-3.18.11
cat patch-3.18.11-rt7.patch | patch -p1
make menuconfig
```

- this will make a screen like this one below pop-up





- if you want an amd64 kernel, check the 64-bit kernel box
- press 2x <ESC> to exit
- then continue

```
make -j$(nproc)
```

- go and have a coffee. When finished do:

```
sudo make modules_install
sudo make install
```