

# Debian Installation

## Requirements

It seems that minimal requirements are very low, you can get Debian working with 64MB RAM already. SD Access is needed for the rootfs. There are no other requirements, assuming petalinux 2015.4 kernel is working.

## Petalinux setup

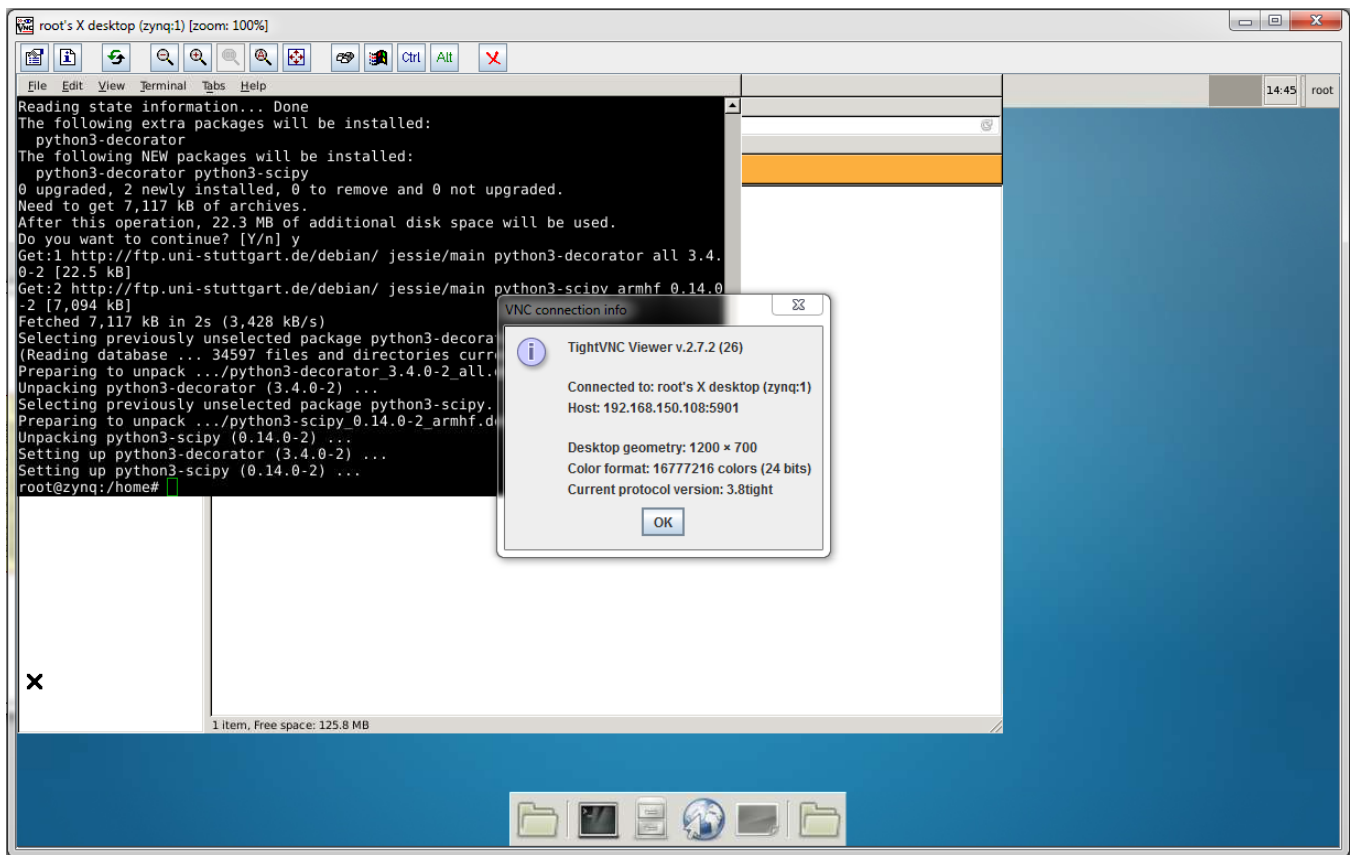
To enable Debian there is only one setting to be done in Petalinux with menuconfig, the location for rootfs should selected "SD", this is sufficient, no other changes required.

## Remote Desktop

For the systems with no actual display remote access to desktop can be used to have GUI environment. XCFE is easiset way to get going.

Setup on Zynq

```
apt-get install xfonts-base tightvncserver xfce4-panel xfce4-session xfwm4 xfdesktop4 xfce4-terminal thunar gnome-  
icon-theme  
vncserver -geometry 1200x700
```



VNC session to Remote desktop on TE0720 (without any actual display device). Similarly remote desktop access is possible to any other Zynq based system or SoM with Ethernet connection and external RAM.

## X-Windows on Simple Framebuffer

Install needed packages

```
apt-get install xserver-xorg xinit xserver-xorg-video-fbdev
```

Create file: /usr/share/X11/xorg.conf.d/99-fbdev.conf

```

Section "Device"
    Identifier "myfb"
    Driver "fbdev"
    Option "fbdev" "/dev/fb0"
EndSection
  
```

Start X Server

```
startx
```

or

```
FRAMEBUFFER=/dev/fb0 startx
```



Linux mainstream simple-framebuffer driver has a bug that prevents the driver to install correctly if the total system memory is less than 512MByte. Error -12 would come then during the startup and the driver will not get loaded. There is no simple easy patch known.