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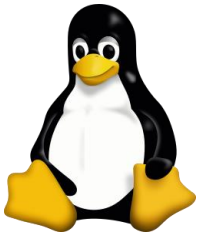
Microwave Electronics Division



Petalinux – Samba package

USER GUIDE

Orel Eliyahu | Petalinux – Special Package | 19/09/2023

Environmental Requirements

In order to use Petalinux in general, it is required to work with a Linux operating system on a virtual machine or a dedicated computer with an adapted Linux version.

In this guide I worked in the following configuration:

- **Operating system** : Ubuntu 22.04 (On VM)
- **Petalinux** : version 2023.1
- **Linux kernel**: version 6.1
- **Samba** : version 4.14.14

It is possible that the guide will be different for older versions of Petalinux and indeed it should be considered as appropriate for the environment configuration mentioned above

Step 1

After opening a new project, and importing an XSA file for it, and after configuer the Kernel, access the file "**user-rootfsconfig**" at the following address:

<Project-Directory>/project-spec/meta-user/conf/user-rootfsconfig

And add this line :

```
CONFIG_samba
```

It is not mandatory, but it is recommended to add this file editor:

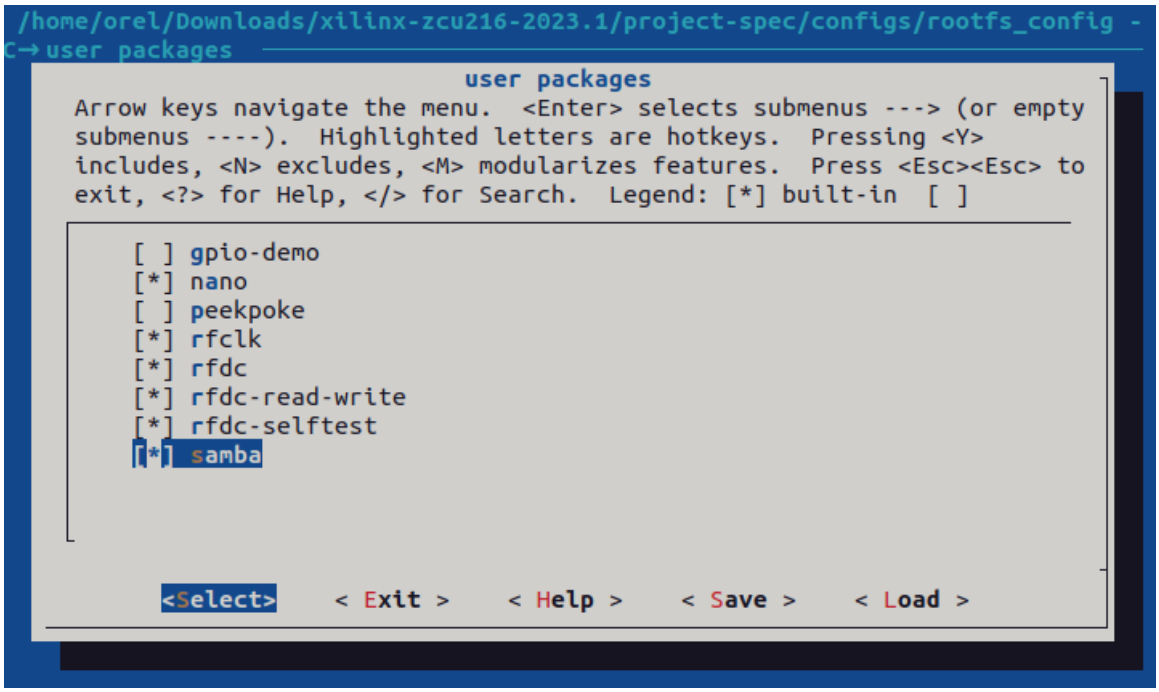
And add this line :

```
CONFIG_nano
```

Save the file and enter to rootfs config using this command :

```
petalinux-config -c rootfs
```

Go to user package -> and mark the samba (and optional mark nano)



After that , build the project and load the compiled Linux on top of the zynqMP .

Step 2

SETTING UP SAMBA

Now that Samba is installed, we need to create a directory for it to share:

```
mkdir /home/<username>/sambashare/
```

The command above creates a new folder sambashare in our home directory which we will share later.

The configuration file for Samba is located at /etc/samba/smb.conf. To add the new directory as a share, we edit the file by running:

```
sudo nano /etc/samba/smb.conf
```

At the bottom of the file, add the following lines:

```
[sambashare]
   path = /home/username/sambashare
   read only = no
   browsable = yes
```

Change the " **obey pam restrictions** " parameter to NO :

```
obey pam restrictions = no
```

Then press Ctrl-O to save and Ctrl-X to exit from the *nano* text editor.

Now that we have our new share configured, save it and restart Samba for it to take effect:

```
sudo service samba restart
```

Step 3

SETTING UP USER ACCOUNTS AND CONNECTING TO SHARE

Since Samba doesn't use the system account password, we need to set up a Samba password for our user account **(only Same User of the Linux!)**:

```
sudo smbpasswd -a username
```

Now you can access to share folder that you set from the ip that you set for the system.