

README to Debian Installation DVD for F4001 BSP

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1 Debian Lenny 5.0 DVD Image

1.1 In case of problems with graphical installation

In some rare cases, depending on the kind and resolution of monitor attached, and depending on the version of the distribution the graphical installation might fail.

If this happens to you, one of the following measurements might help.

- In the main installation start menu, choose a resolution of 1280x1024 or lower
- or: Choose Install in text mode
- or: Use a monitor with a lower resolution for installation

In any case, after the OS installation, you will use the distribution provided configuration mechanisms to configure the desired resolution for you system. Please refer to the distribution manuals for more details.

1.2 Overview

This document describes the Kontron Installation Image DVD for F4001 BSP supported boards like ThinkIO-Duo. The purpose of this DVD is to install a Debian Lenny 5.0 Linux image to the Compact Flash.

Base system:

Version: Debian Lenny 5.0
Kernel: 2.6.29.4-rt19

Additional features:

- Kontron driver package (kontron-f4001-drv-modules-2.6.29.4-rt19_0100-r2-1+f4001.01_i386.deb)
- Kontron demo applications (kontron-f4001-apps_0100-r2-1_i386.deb)
- Kontron kernel (linux-image-2.6.29.4-rt19_f4001.01_i386.deb)
- Read only filesystem for power lost safety
- Gnome graphical desktop

1.3 Further properties

1.3.1 Preconfigured Users

There are two users applied in the system:

- Username: kontron, Password: kontron
- Username: root, Password: kontron

It is possible and recommended to change the passwords after the first booting with help of the "passwd" utility.

1.4 Installation

1.4.1 Preconditions for a successful Installation

- This installation image is prepared to work on 2GB Compact Flash card.

1.4.2 Installation Guide "Step by Step"

- Connect an external USB DVD-ROM to the board.
- Insert the Kontron Installation DVD and start the board.
- Select "KOM Linux Image Installation on VGA" in grub menu.
- Now a minimal Live Linux from the DVD is starting and is trying to detect all devices and then starts automatically the installation script.

```
Kontron Modular Computers GmbH
```

```
Linux Installation Tool
```

```
for: F4001_DEBIAN (ISO-Release: 10)
```

```
DO NOT TURN OFF THE POWER DURING UPDATE APPLICATIONS OPERATING
```

```
Press ENTER to proceed
```

- Continue by using the **Enter** key
- The Kontron DVD Installation Menu will come up

```
-----  
Kontron DVD Menu  
-----
```

```
f) install Linux on Flash disk
```

```
h) additional help
```

```
s) drop to shell (For experts only!)
```

```
q) quit (The system will be rebooted!)
```

```
Choose an option: f
```

- Choose the option to install the linux image by entering **f** followed by the **Enter** key.
- Now appears the last question, whether you really want to install the image, which means that all previous data on /dev/hda will be overwritten! To confirm press **y** , to quit the installation press **n**.

```
Installation will be done on flash disk
```

```
#####
```

WARNING:

If you continue the installation all data on /dev/hda will be lost!
Do you want to continue? [y/N]

```
#####
```

- If **y** was chosen, then the installation will begin. It takes a while and after some minutes, the installation will complete with the message "Program finished successfully".
- The Kontron DVD menu will appear again, where you can retry the installation in case of any error message or quit the installation by typing **q**.
- After a reboot, the new installed Debian Linux shall boot up.

1.5 Changing The System Settings

Note:

This chapter describes, how to change some system parameters to adopt installed image to custom requirements. However, this needs some practical linux knowledge and should only be performed, if the user understands, what is he doing.

In default configuration system start with Kontron kernel (2.6.29.4-rt19) and uses **aufs** filesystem as root. **Aufs** filesystem is configured in the way, that two device are used (Compact Flash and ramdisk) to store root filesystem. Compact Flash is mounted in read-only mode, ramdisk in read-write. All modifications in rootfs are place in ramdisk with is cleaned after platform reset. That prepared system is safe on power failures.

Modification of the system can be made only if **aufs** is disabled. The easy way is to restart platform and choose in GRUB "Debian GNU/Linux, kernel 2.6.26-2-686". System will be started with original Debian kernel and root filesystem will be mounted on Compact Flash card in read/write mode.

It's recommended to use GNOME menu to change system parameters.

After reboot system will start in default mode with kernel 2.6.29.4-rt19 with changes in the root-filesystem.