

Tablix on Morphix HOWTO

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This document briefly describes how to use Tablix with Morphix 0.4 (<http://www.morphix.org>), a modular distribution with live-cd support. This information may be useful to people wanting to run Tablix on computers that don't have a UNIX-like operating system installed.

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1. Introduction

Note: Steps in this HOW-TO assume that you have at least one computer with Linux or a similar operating system installed. You can probably achieve the same result with similar tools on other operating systems.

You will need the following files from the Morphix (<http://www.morphix.org>) web site:

1. A combined ISO of your choice. For this example I will choose `MorphixCombined-LightGUI-0.4.iso` (you probably don't want to waste precious CPU time and memory with KDE or Gnome).
2. Morphix deb-morph minimodule `MorphixMini-deb-morph.mod`.

Also download the following Debian packages (I recommend you use those from the stable distribution). Get them at Debian web site (<http://www.debian.org>) and Tablix home page (<http://www.kiss.si/~k4fe1336/tablix>):

1. `libpvm3`
2. `libxml2`
3. `pvm`
4. `tablix`

2. Preparing the ISO

Mount the ISO. You will need a kernel that supports loop back devices (most Linux distributions support this out of the box).

```
$ su
Password:
# mount -o loop MorphixCombined-LightGUI-0.4.iso /cdrom
```

We cannot change the ISO directly, so you must copy its contents to a temporary directory.

```
$ cp -r /cdrom tmp
```

Copy `MorphixMini-deb-morph.mod` to the `minimod` subdirectory.

```
$ cd tmp
$ cd minimod
$ cp ../../MorphixMini-deb-morph.mod .
```

Copy all of the debian packages you downloaded to the deb subdirectory.

```
$ cd ..
$ mkdir deb
$ cd deb
$ cp ../../libpvm3_3.4.2-8_i386.deb .
$ cp ../../pvm_3.4.2-8_i386.deb .
$ cp ../../libxml2_2.4.19-4_i386.deb .
$ cp ../../tablix_0.0.4-1_i386.deb .
```

You are now ready to burn the modified file system to a recordable CD. Following has been copied from the Morphix ISO HOWTO.

```
$ cd ..
$ cd ..
$ mkisofs -pad -l -r -J -v -V "Morphix" \
-b base/boot.img -c boot.catalog -hide-rr-moved -o morphix.iso tmp
$ cdrecord morphix.iso
```

Of course, you should add any options needed by your drive to the cdrecord command line.

3. Morphix settings

Boot the computer from the CD you just made. Because settings are not saved when you shut down Morphix, you will have to go through this procedure after every boot.

Use the Morphix' network configuration to bring up the network interfaces. Try if they work by pinging some computers on your LAN

Now open a root console and start the ssh daemon. sshd privilege separation user is missing, so you will have to create it first.

```
# adduser --system sshd
# /etc/init.d/ssh start
```

Now create a normal user. For minimum trouble choose the same username as the one that will be used to run the Tablix master process.

```
# adduser avian
```

4. Master node settings

Once you have set up nodes, add each node into the `hostfile` and start the PVM. Don't forget the speed option!

You will be prompted for a password for each node. After that, you can check the configuration by entering `conf` at the `pvm` console.

If everything looks fine, you can start the Tablix master process as usual.