Deviation Building Station

Hello, in this document I will outline how to get up and running with my virtual machine dedicated to building Deviation TX.

First, some words about Deviation

Deviation is a project by PhracturedBlue, official homepage is at:

http://www.deviationtx.com

Official code repository can be found at:

https://bitbucket.org/PhracturedBlue/deviation

About this virtual machine

This machine was created using:

VirtualBox (https://www.virtualbox.org/wiki/Downloads),

and is running

Arch Linux(http://www.archlinux.org).

Other tools include:

Mercurial (http://mercurial.selenic.com/) for source code control, and ARM tool chain. The tool chain was installed using summon-arm-toolchain (https://github.com/esden/summon-arm-toolchain).

Inside the virtual machine you'll find a script called 'deviation', which will help you compile and build both the DFU files and the file system archives.

File transfer between the virtual machine and the host system is done through a feature called Shared Folders, which VirtualBox implements. Make sure you read through this document to find out how you need to configure and test.
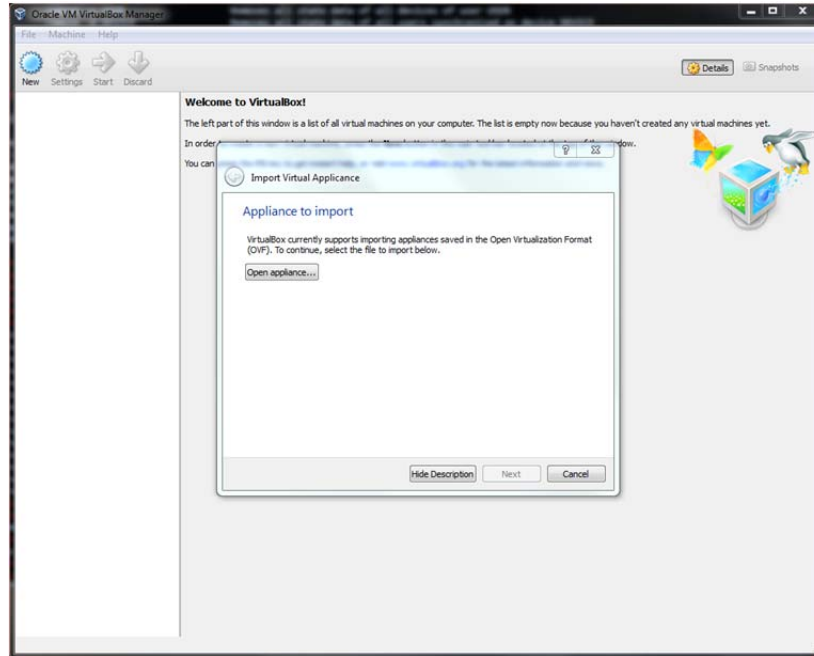
Note:

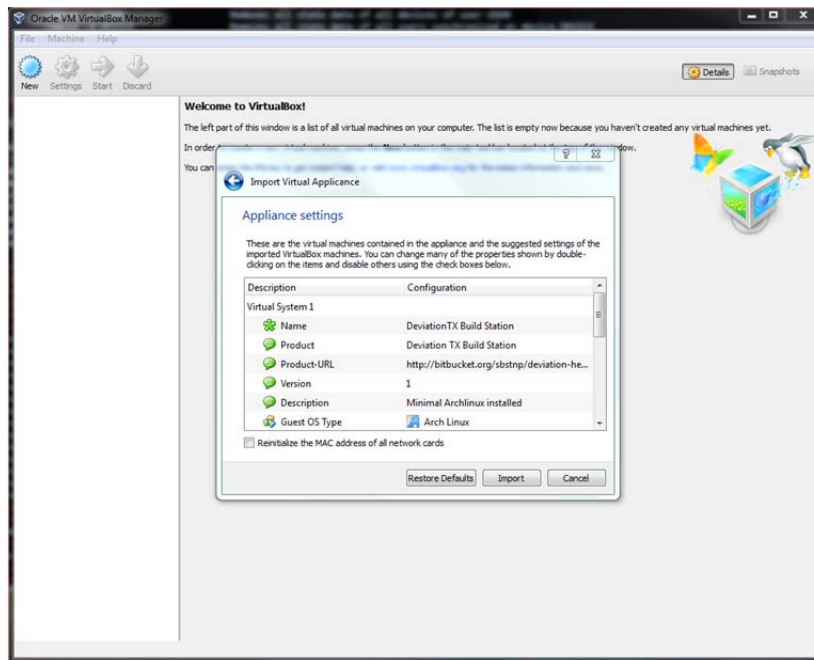*I expect users of this machine to have basic computer knowledge*.

Virtual Box Installation and OVA Import

First, download **VirtualBox** for Windows from the link provided above. Proceed with the installation start Virtual Box from the start menu or desktop icon.
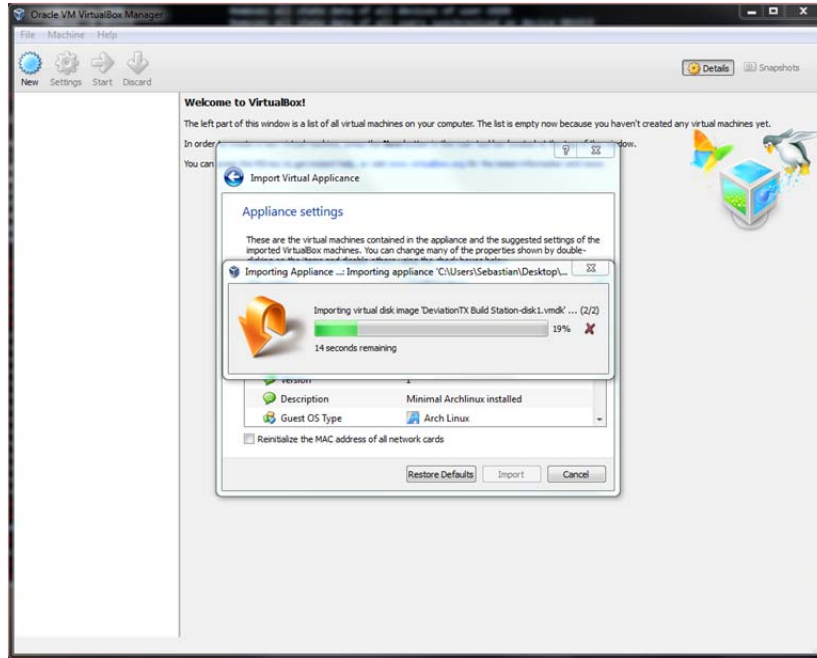
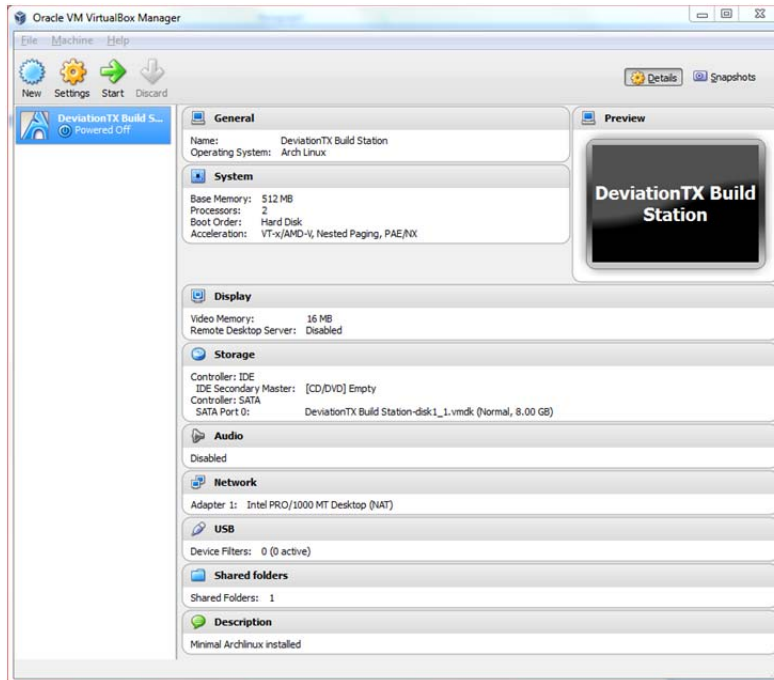Click on '**Import Appliance'**, found in the '**File'** menu.

Click on '**Open appliance'** and navigate to where you saved the OVA file. Select the file and click OK.

Click on '**Import**'.

After the process finishes, you should see a window similar to the picture below.

VM Imported 1

Virtual Machine Configuration and First Start

The virtual machine comes pre-configured, but some steps will be required to verify things work as they should.
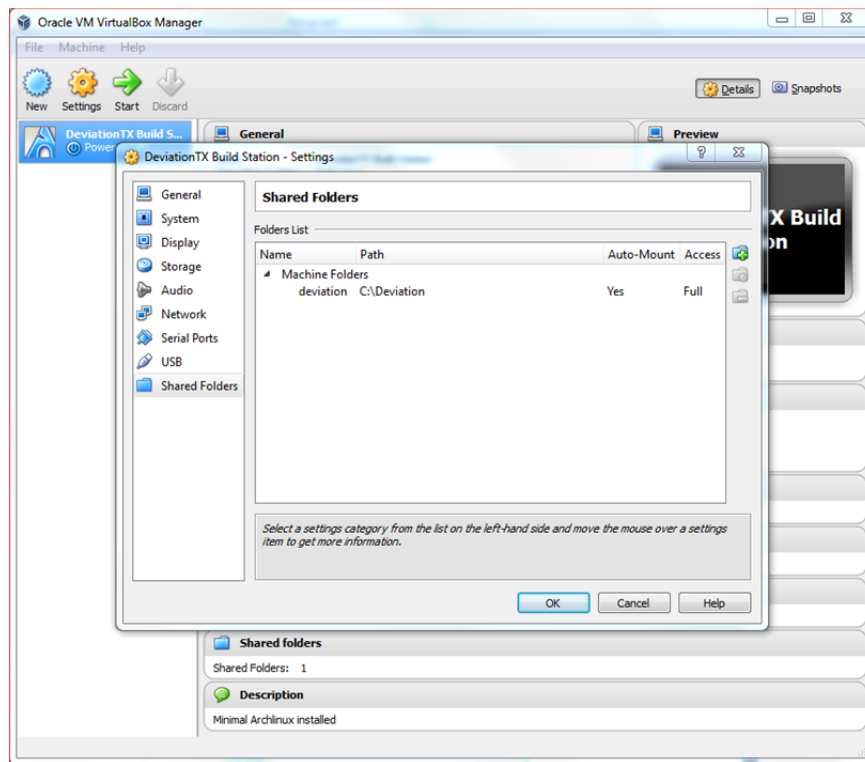
We need to check:

1. Shared Folders feature
2. Network configuration

1. Shared Folders feature

With the virtual machine selected, click on the '**Settings'** button. The window below will open. Select '**Shared Folders**' on the left.

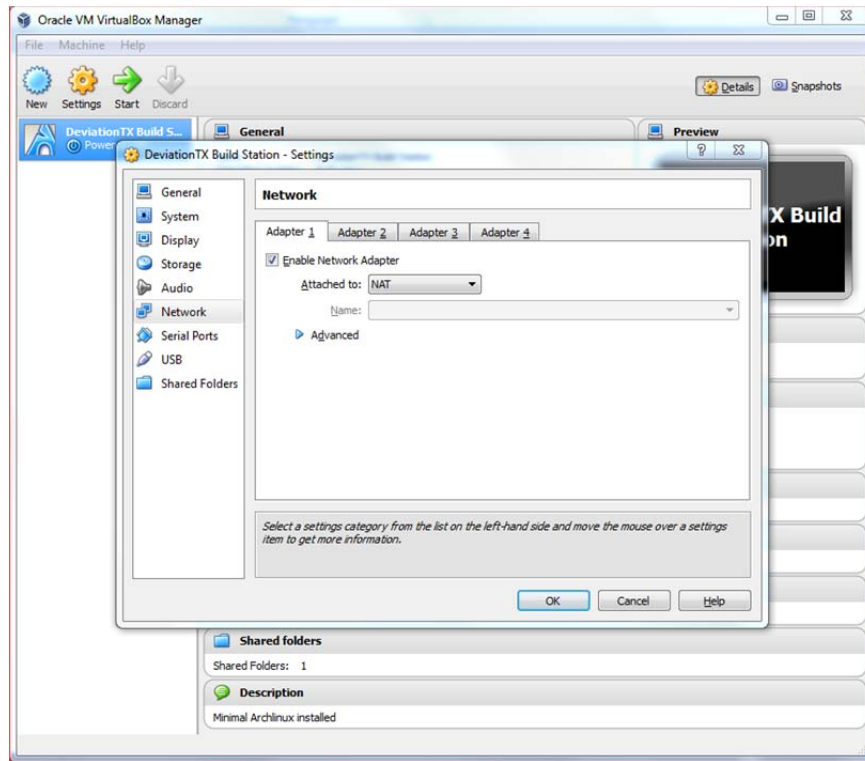Make sure you have the folder "**C:\Deviation**" created using Windows Explorer.

Vm Shared Folders settings 1

2. Network settings.

I configured only one network adapter for this VM, type is "*NAT*". Select '**Network'** on the left and verify you have '*Adapter 1*' enabled and attached to "*NAT*".

This will allow internet access inside your VM, necessary for updating Deviation source tree. See the picture below for how it should look.
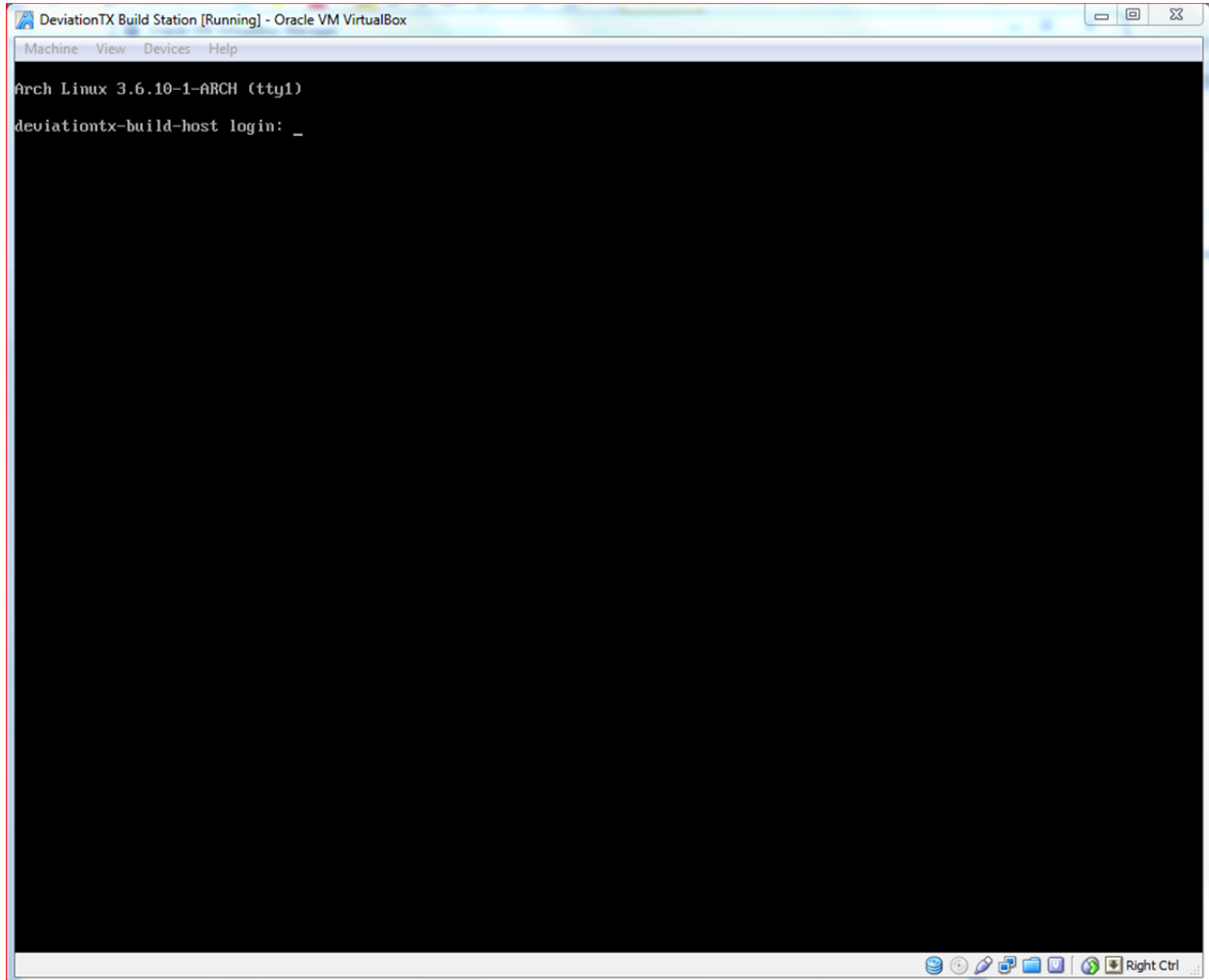

VM Network Settings 1

Click on '**OK**' to close this window and confirm the settings.

Starting the Virtual Machine

Next in line is starting up this virtual machine. Select it on the left and click '**Start**'. After a while you'll get a login screen like below:

To login into the Linux machine use these credentials:

User: dev
Password: deviation

For administrative access (if needed), use these credentials:

User: root
Password: deviation

SUDO is enabled and unrestricted for the user '*dev*'. This is the preferred way to execute privileged commands inside the VM.

Virtual machine profile looks like this:

1 CPU
512 MB RAM
8GB thin allocation hard-disk, used about 1.7GB

1 Network adapter eth0, configured using DHCP.

How to build Deviation

1. Login using username *dev* with password *deviation*.
2. Run: *deviation self-update*
3. Run *deviation setup*
4. Depending on the model of your transmitter, run:

deviation build devo6
deviation build devo8
deviation build devo10

Running the command at (4) will generate a DFU file and a filesystem archive, both placed in:

/media/deviation

On the host machine you can find the files above in:

C:\deviation

Reporting issues/bugs or suggestions

Please use the issue tracker at:

http://bitbucket.org/sbstnp/deviation-helper-script