

?????<https://www.virtualbox.org/>

## ?? Guest Additions

? Guest OS ??????? Guest Additions (?? VMware VM-Tools)???? Guest OS ???

### CentOS 5x

???????

```
yum install gcc kernel-devel
```

VirtualBox Manager > ?? Guest OS > Devices > Insert Guest Additions CD Image

```
cd /media/VBOXADDITIONS_XXXXXXX/
sh ./VBoxLinuxAdditions.run
reboot
```

### Debian 8x

```
sudo -i
apt-get update
apt-get upgrade
apt-get install build-essential module-assistant
m-a prepare
```

Insert Guest Additions ISO

```
mount /media/cdrom
sh /media/cdrom/VBoxLinuxAdditions.run
reboot
```

## FAQ

### VM ???????? EFI SHELL

????? Elastix 4.0 ? FreePBX Distro 14 ???????????

? EFI SHELL ???????

```
FS0:
FS0> edit startup.nsh
```

?????

```
FS0:
\EFI\centos\grubx64.efi
```

CTRL + s ???CTRL + q ??

?? VM

??? CentOS 5 ???? Recompiling VirtualBox kernel modules [FAILED]

???????????? VirtualBox RPM???????????????????? VirtualBox RPM?

shell> rpm -e VirtualBox-4.3-4.3.26\_98988\_el5-1

shell> yum install binutils gcc make patch libgomp glibc-headers glibc-devel kernel-headers kernel-devel

shell> rpm -ivh VirtualBox-4.3-4.3.26\_98988\_el5-1.x86\_64.rpm

?? Guest OS ????? Windows ? Linux ??? 32-bit ???

???Guest-OS ???? 64-bit??? Host OS ?RPM ?? 64-bit ?????????? CPU ????????????