

# Qubes OS Cheatsheet

## VM Management

**qvm-block** - list/set VM PCI devices

usage:

- **qvm-block -l** [options]
- **qvm-block -a** [options] <device> <vm-name>
- **qvm-block -d** [options] <device>
- **qvm-block -d** [options] <vm-name>

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**qvm-block -A** personal dom0:/home/user/extradisks/data.img - *attaches an additional storage for the personal-vm*

**qvm-ls** - list VMs and various information about their state

usage: **qvm-ls** [options] <vm-name>

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**qvm-ls** - *lists all vms*

**qvm-ls -n** - *show network addresses assigned to VMs*

**qvm-ls -d** - *show VM disk utilization statistics*

**qvm-prefs** - list/set various per-VM properties

usage:

- **qvm-prefs -l** [options] <vm-name>
- **qvm-prefs -s** [options] <vm-name> <property> [...]

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**qvm-prefs win7-copy** - *lists the preferences of the win7-copy*

**qvm-prefs win7-copy -s mac 00:16:3E:5E:6C:05** - *sets a new mac for the network card*

**qvm-prefs lab-win7 -s qrexec\_installed true** - *sets the qrexec to installed*

**qvm-prefs lab-win7 -s qrexec\_timeout 120** - *usefull for windows hvm based vms*

**qvm-prefs lab-win7 -s default\_user joanna** - *sets the login user*

**qvm-run** - runs a specific command on a vm

usage: **qvm-run** [options] [<vm-name>] [<cmd>]

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**qvm-run personal xterm** - *runs xterm on personal*

**qvm-run personal xterm --pass-io** - *runs xterm and passes all sdtin/stdout/stderr to the terminal*

**qvm-run personal "sudo yum update" --pass-io --nogui** - *pass a specific command directly to the VM*

**qvm-start** - starts a vm

usage: **qvm-start** [options] <vm-name>

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**qvm-start personal** - *starts the personal-vm*

**qvm-start ubuntu --cdrom personal:/home/user/Downloads/ubuntu-14.04.iso** - *starts the ubuntu-vm*

**qvm-sync-appmenus** - *updates desktop file templates for given StandaloneVM or TemplateVM*

usage: qvm-sync-appmenus [options] <vm-name>

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qvm-sync-appmenus archlinux-template - *useful for custom .desktop files or distributions not using yum*

## Dom0

**qubes-dom0-update** - *updates software in dom0*

usage: qubes-dom0-update [--clean][--check-only][--gui] [<yum opts>][<pkg list>]

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sudo qubes-dom0-update - *updates dom0*

sudo qubes-dom0-update qubes-windows-tools - *install the windows tools*

**qubes-hcl-report** - *generates a report about the hardware information*

usage: qubes-hcl-report [<vm-name>]

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qubes-hcl-report - *prints the hardware information on the console (terminal)*

qubes-hcl-report personal - *sends the hardware information to the personal-vm under /home/user*

**xl** - *Xen management tool, based on LibXenlight*

usage: xl subcommand [args]

xl dmesg - *Dom0 dmesg output (first place to look for warning or error messages)*

xl top - *Monitor host and domains in realtime*

## DomU

**qvm-copy-to-vm** - *Copy file from one VM to another VM*

usage: qvm-copy-to-vm <vm-name> <file> [<file+>] - *file can be a single file or a folder*

qvm-copy-to-vm work Documents - *copy the Documents folder to the work VM*

qvm-copy-to-vm personal text.txt - *copy the text.txt file to the personal VM*

## Example

- Open a terminal in AppVM A (e. g. your personal vm)
- Let's assume we want to copy the Documents folder to AppVM B (e. g. your work VM)
- The command would be: qvm-copy-to-vm work Documents

## Copy from & to Dom0

Copy from: Dom0 -> VM

```
cat /path/to/file_in_dom0 |  
qvm-run --pass-io <dst_domain>  
'cat > /path/to/file_name_in_appvm'
```

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Copy from: VM -> Dom0

```
qvm-run --pass-io <src_domain>  
'cat /path/to/file_in_src_domain' >  
/path/to/file_name_in_dom0
```

## Copy text between VM A and B

On VM A (*source*):

1. CTRL+C
2. CTRL+SHIFT+C

On VM B (*destination*):

3. CTRL+SHIFT+V
4. CTRL+V

## Grow disk

**qvm-grow-private** - *increase private storage capacity of a specified VM*

usage: `qvm-grow-private <vm-name> <size>`

## Example

- In dom0 konsole: `qvm-grow-private personal 40GB`
- In the personal VM: `sudo resize2fs /dev/xvdb`

## VM -> VM Networking

Make sure:

- Both VMs are connected to the same firewall VM
- Qubes IP addresses are assigned to both VMs
- Both VMs are started

Firewall VM's terminal:

```
sudo iptables -I FORWARD 2 -s <IP address of A> -d <IP address of B> -j ACCEPT
```

## Templates

**Fedora Minimal** - *Fedora minimal template*

`sudo qubes-dom0-update qubes-template-fedora-21-minimal` - *installs the fedora-21-minimal template*

**Archlinux Minimal** - *Archlinux minimal template*

1. In a VM:

```
wget http://olivier.medoc.free.fr/rpm/noarch/  
qubes-template-archlinux-minimal-3.0.3-201507281153.noarch.rpm
```

2. Copy RPM-Package to Dom0

3. In Dom0: `sudo rpm -i qubes-template-archlinux-minimal-3.0.3-201507281153.noarch.rpm`