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# Configuration

|  |  |
| --- | --- |
| Login | User = pi, Password = raspberry |
| Go to sysadmin/root mode | sudo su |
| Change password | passwd |
| Main configuration and update | raspi-config |
| Get IP adderess | Ifconfig |
| Shutdown | shutdown -h now |
| restart | shutdown -r now (or sudo reboot) |
| Network restart | /etc/init.d/networking restart |
| Manual/documentation for “tree” package | man tree |
| Update all packages | apt-get update |
| Upgrade all packages | apt-get upgrade |
| Scripts / BAT files | bash go.sh |
| Text editor | nano abc.txt |
|  |  |
| Delete file | rm abc.txt |
| Find file by mask | find . -name "libpi4j.so" |

## Updates

apt-get update (update all packages)

apt-get upgrade (upgrade all packages)

### sample install-deinstall tree package

apt-get install tree –y

man tree (manual documentation for tree package)

apt-get remove tree (or sudo apt-get purge tree)

# QEMU

## Extend image size

qemu-img resize <imagename> +2G

fdisk /dev/sda (remember start block, delete partition 2, add partition with start block)

reboot

resize2fs /dev/sda2

## Remote access

### QEMU SSH Redirecting:

Add to RUN.BAT:

-redir tcp:230::3389 -redir tcp:22::22 -redir tcp:8999::8999

22= SSH Putty, 230=Remote Desktop, 8999=Java Remote Run

## Bridge Network

So, you may have to do some surfing around to find it, but the basic idea is:

1) Install openvpn on your Windows system. This will install one or more "TAP" network devices on your system. I have no idea what the letters "TAP" stand for.

2) Use the "network control panel" to setup a "bridge" between your real connection (usually ethernet) and the "TAP" device.

3) Change your QEMU.BAT file to say -net nic -net if=tap

## Allow SSH

<http://www.maketecheasier.com/static-ip-address-setup-ssh-on-raspberry-pi/>

sudo nano /etc/network/interfaces

iface eth0 inet static

address 192.168.1.20

netmask 255.255.255.0

gateway 192.168.1.1

sudo raspi-config

then enable SSH server

## Remote desktop

<http://www.maketecheasier.com/enabling-remote-desktop-access-on-raspberry-pi/>

sudo apt-get install xrdp

## Putty

<http://raspberrypi4dummies.wordpress.com/2013/03/17/connect-to-the-raspberry-pi-via-ssh-putty/>

# Development

## Install Java

apt-get update

apt-get install oracle-java7-jdk

## Install Wiring Pi

<http://wiringpi.com/download-and-install/>

apt-get install git-core

## Install P4J

curl -s get.pi4j.com | sudo bash

## Java Remote Debug

<http://www.ibm.com/developerworks/library/os-eclipse-javadebug/>

Simple: <http://remotevm.abstracthorizon.org/eclipse-tutorial.html>

### On Client:

Add to lib (pi4j+client)

Add to build path pi4j-core and client

Create lunch config:

### On Server:

wget <http://repository.abstracthorizon.org/maven2/abstracthorizon.snapshot/org/ah/java/remotevmlauncher/remotevmlauncher-agent/1.0-SNAPSHOT/remotevmlauncher-agent-1.0-20140103.103618-5.jar>

java -jar remotevmlauncher-agent-1.0-20140103.103618-5.jar -d 1

Grant access:

sudo su

chmod -R ugo+rw .remotevm

## Download Files from Internet (WGET)

<http://www.simplehelp.net/2008/12/11/how-to-download-files-from-the-linux-command-line/>

apt-get install wget

wget http://server.lv/filename.zip

Old config:

