

Instructions for a full HS3 install on a Raspberry Pi B+

1. Format new SD card using SDFormatter4
 - https://www.sdcard.org/downloads/formatter_4/eula_windows/
 - "FORMAT TYPE" set to "FULL (erase)"
 - "FORMAT SIZE ADJUSTMENT" set to "ON"
2. Copy NOOBS to SD card*:
 - http://downloads.raspberrypi.org/NOOBS_latest, I used 1.3.10
 - Copy content to SD card
 - remove Data_Partition in the \os directory (and any other directory that might exist in the \os directory except Raspbian)
 - Edit file \os\Raspbian\flavours.json, so it only contains "Raspbian" (not "Raspbian - Boot to Scratch").
 - Edit file recovery.cmdline (in root) and append "silentinstall" (without quotes) to the arguments list.
3. Insert SD card into RPi, connect to the network and connect power supply. Wait until the installation is finished (monitor the green activity light, might take 20+ minutes)
4. Find the IP address (look into your router DHCP table for a MAC Address that starts with B8:27:EB) and Putty to your RPi
 - Change the password:
 - `su pi`
 - `passwd`
5. Overclock the RPi to 900Mhz:
 - Edit file /boot/config.txt and change arm_freq to 900
 - Or run `sudo raspi-config` (didn't know about this at the time of installation...)
6. Update:
 - `sudo apt-get update`
 - `sudo apt-get dist-upgrade`
 - `sudo apt-get install htop git build-essential autoconf automake screen curl binutils`
 - `sudo rpi-update`
7. Reboot:
 - `sudo reboot`
8. Install and compile mono (will take ~9 hours!)
 - `sudo apt-get install libtool libglib2.0-dev libxrender-dev libfontconfig1-dev libpng12-dev libgif-dev libjpeg8-dev libtiff5-dev libexif-dev gettext libcairo2-dev`
 - `sudo apt-get install libgdiplus`
 - create a place for the sources:
 - `cd ~`
 - `mkdir sources`
 - `cd sources`
 - Get a list of available mono packages:
 - `wget -qO- http://download.mono-project.com/sources/mono/ | grep -o -E 'href="([^\#]+)'" | cut -d'"' -f2 | sort | uniq`
 - I used 3.10.0:
 - `wget http://download.mono-project.com/sources/mono/mono-3.10.0.tar.bz2`
 - Extract:

- `tar -jxvf mono-3.10.0.tar.bz2`
- Run configure:
 - `cd mono-3.10.0`
 - `./configure --prefix=/usr/local/`
- run make - compile (~8 hours):
 - `sudo SKIP_AOT=true make`
- run make - install (~20 minutes):
 - `sudo SKIP_AOT=true make install`

9. Install and compile mono-basic

- Go back to the sources directory
 - `cd ~/sources`
- Get a list of available mono-basic packages:
 - `wget -qO- http://download.mono-project.com/sources/mono-basic/ | grep -o -E 'href="([^\"]+)"' | cut -d'"' -f2 | sort | uniq`
- I used 3.8.0:
 - `wget http://download.mono-project.com/sources/mono-basic/mono-basic-3.8.tar.bz2`
- Extract:
 - `tar -jxvf mono-basic-3.8.tar.bz2`
- Run configure:
 - `cd mono-basic-3.8`
 - `./configure --prefix=/usr/local/`
- run make - compile (just a few minutes ☺):
 - `sudo SKIP_AOT=true make`
- run make - install:
 - `sudo SKIP_AOT=true make install`

10. Check install and backup

- Check if mono is installed properly:
 - `mono --version`
- Cleanup:
 - `cd ~`
 - `sudo rm sources -rf`
- Time to backup. On a Windows PC:
 - Download and install <http://sourceforge.net/projects/win32diskimager/>
 - Shutdown the RPi: `sudo poweroff`
 - Put the SD card into the Windows PC
 - Image file: the path of your soon-to-be image file
 - Device: select the SD card
 - Hit "Read"

11. Install Homeseer HS3

- Download and install HS3:
 - `cd ~`
 - `wget ftp://ftp.homeseer.com/updates/Beta/hs3_linux_3_0_0_128.tar.gz`
 - `tar xvf hs3_linux_3_0_0_128.tar.gz`
- Start Homeseer HS3
 - `cd ~/HomeSeer`
 - `./go`

* This assumes a headless installation (no monitor, keyboard and mouse). If you prefer a normal, non-silent installation please insert the SD card into the RPi after copying the NOOBS content to the SD card and follow the instruction on screen. The continue at step 4.

References used:

- <http://raspberrypi.stackexchange.com/questions/15192/installing-raspbian-from-noobs-without-display>
- <http://logview.info/forum/index.php?resources/linux-preparation-with-mono.7/download&version=8>
- <http://board.homeseeer.com/showthread.php?t=165711>
- All kinds of Internet forums, blogs, wikis etc.