Lecture: 1-3

Prerequisites for this lecture are: 1-1 and .

slide 1 gaius

Installing the USW Raspberry Pi-4 image

the USW Raspberry Pi-4 image (http:// floppsie.comp.glam.ac.uk/download/bootimages/ student-rpi4-22-09-2020-shrink.img) is a 32bit arm7 for the Raspberry Pi-4 (either 8GB or 4GB variety).

- the image is just over 6GB and needs to be etched or dd'd to a micro USB card
 - the image contains a self inflating filesystem which will expand when the machine first boots and it will utilise the whole micro USB card
 - it has been tested successfully with a 32GB card

Placing the contents of the image onto the micro USB card

- if you are on a Windows or OSX or Raspberry-Pi machine you should install etcher (https://www.balena.io/etcher) and use this tool to prepare the card
- you need to run the etcher program, locate the .img file and write the image file to the micro USB card
- notice that the USW Raspberry Pi-4 image is not zipped
- the user account is: student and the password is a
- the student user account can sudo to root and the password for root/sudo is a
 - you might want to change this (see the command line program

Placing the contents of the image onto the micro USB card

- when your Raspberry Pi-4 boots for the first time you need to be patient as the self expansion can take 3-4 minutes, during this time the screen is pretty near blank.
 - thankfully this only occurs once and thereafter it boots in seconds

About this USW Raspberry Pi-4 image

- it is based on the Raspbian 32bit Buster distribution
- as far as known it has all the tools necessary to complete the courseworks for Game Engine Design, Game Tool Development and Operating Systems
 - caveat, there maybe additional packages, necessary, but these should be a single command line instruction away
- it comes with gcc, g++, gdb, vi, emacs, python3, python2, pge, chisel, gm2, openconnect (a vpn client) and thousands of other packages
 - C++-17 is also installed as an extra, the gcc-10 is also installed which contains detailed semantic analysis of your C programs!