Operating Systems and Architecture UFCFCU-30-1

Day 2 Tasks

**Representation of Data**

How is a 64-bit integer calculation handled in a 32-bit processor?

What is the historical and current purpose of the ASCII control characters?

If a character string consists of a sequence of ASCII bytes, how do programs know where the string ends?

How were multiple languages managed in ASCII prior to Unicode?

How easy is it to shift from lower to upper case in ASCII?

How is UTF-8 backwards compatible with ASCII?

What is the hexadecimal range in UTF-8 for dingbats?

What is the unicode for a smiley face?

How does variable length work in UTF-16?

See the hex, binary op code and assembler for the RISC simulator we will be using throughout this module: <http://www.peterhigginson.co.uk/RISC/instruction_set.pdf>

What is the hex op code for branch if the result of a compare is equal?

What is the hex op code for reading from an address?

What is the difference between a container file format and the file extension .mpg?

What other examples of metadata other than images can you find?

What is a disadvantage of file managers that do not show file extensions?

What are the magic numbers for: .xls .ppt .dll .exe? Any problems here?