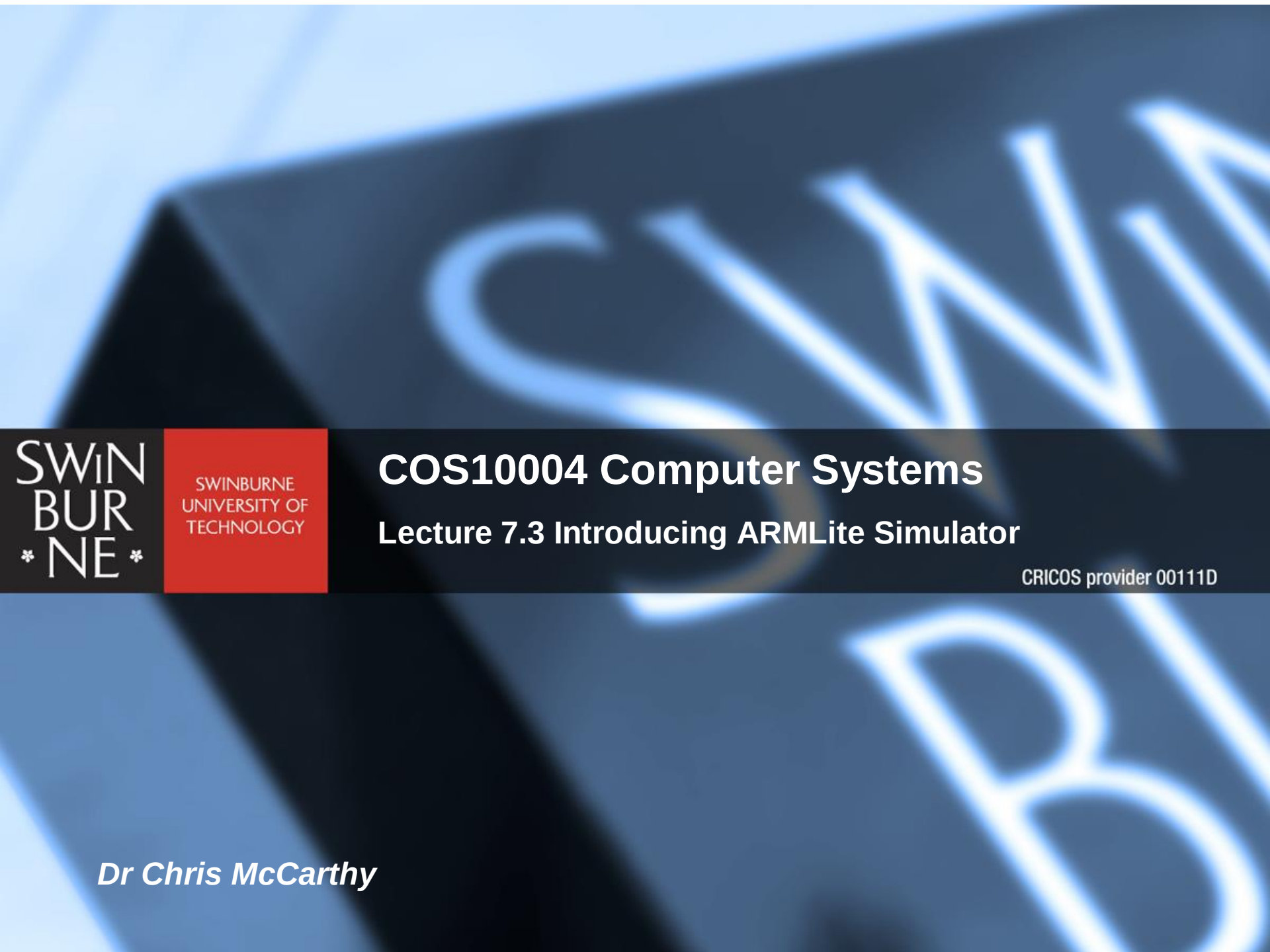


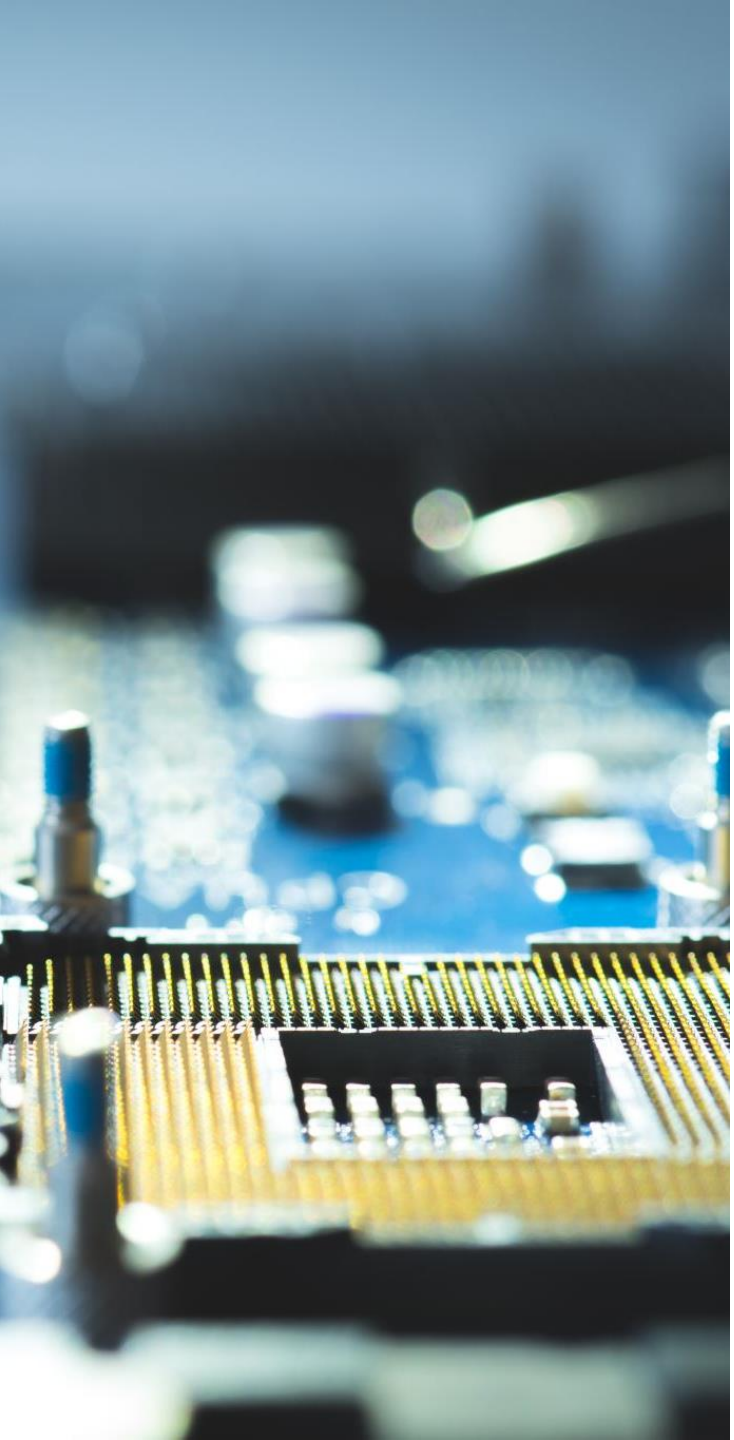
COS10004 Computer Systems

Lecture 7.3 Introducing ARMLite Simulator

CRICOS provider 00111D

Dr Chris McCarthy

_start:



ARMLITE SIMULATOR

- Developed by Peter Higginson
- Simulates a simple computer
- Cut down version of a 32-bit ARM processor

- Why do we use it:
  - Allows us to directly focus on ARM instructions
  - Provides useful visualisations of memory, and code output (eg., displays)

WHY NOT A REAL CPU ?

Historically this unit used the Raspberry Pi – a low cost “computer on a chip”

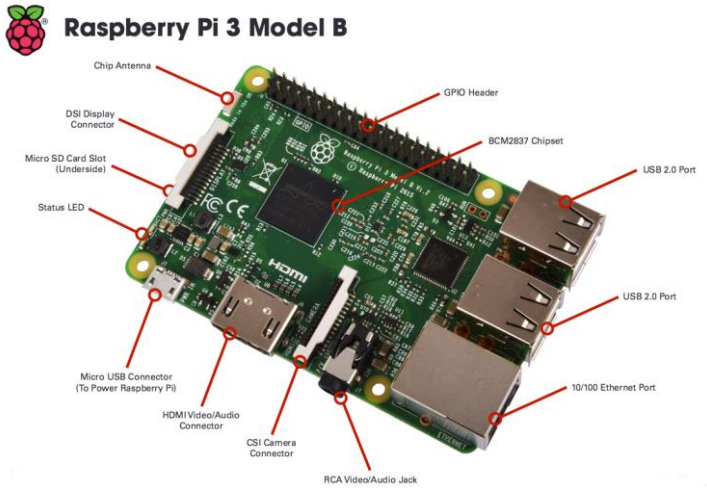
Real hardware experience is hard to replicate !

BUT

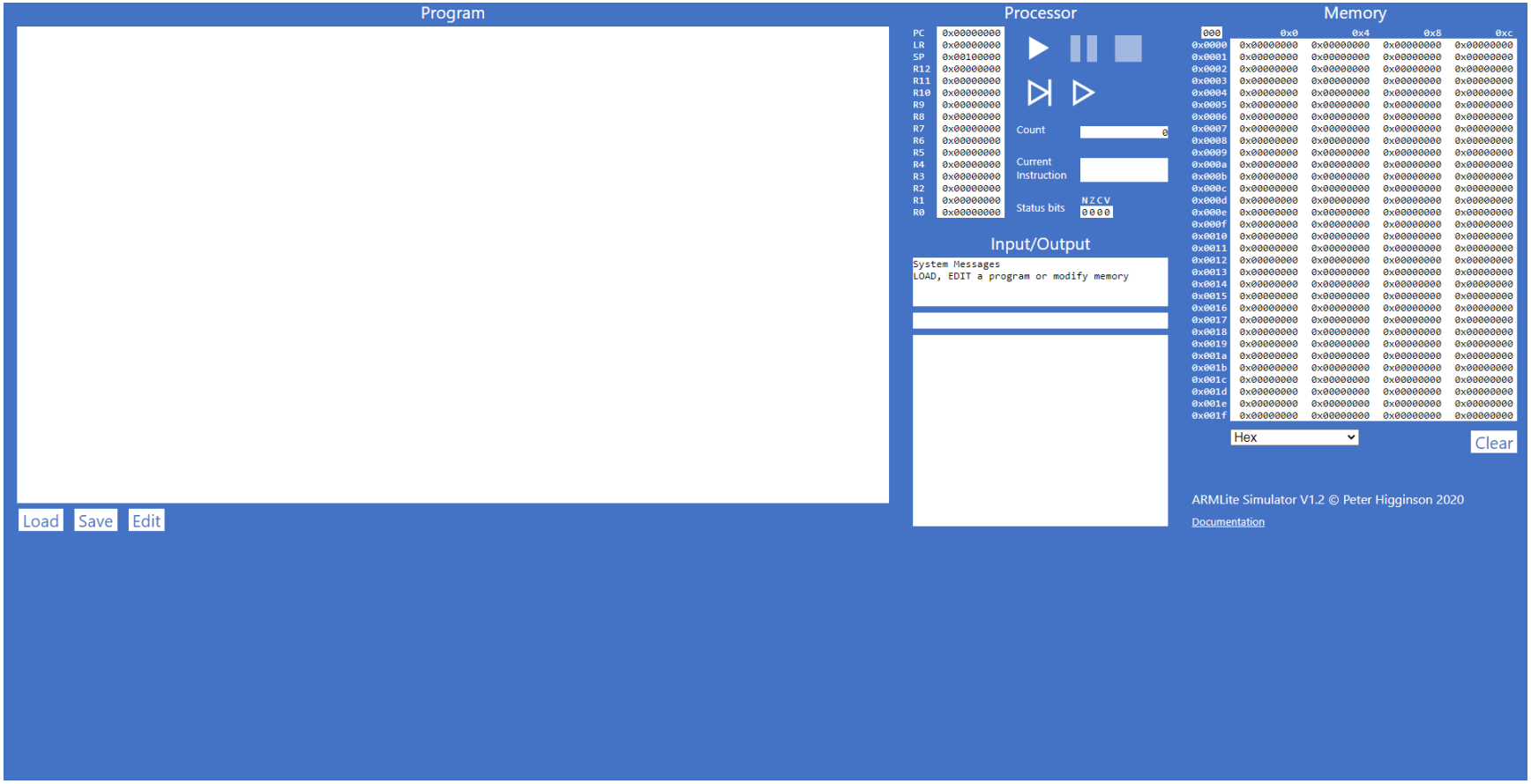
Real hardware experience is also hard to support at scale

In this unit we aim to focus on the concepts rather than the hardware specifics

However – we are happy to make the old content available to anyone interested in pursuing ARM assembly programming with a Raspberry Pi (after this unit) – it’s good fun



ARMLITE SIMULATOR



POWERPOINT SUCKS

- Let’s just jump in and have a look

ARMLITE RESOURCES

All the labs borrow heavily from the online book:

"Computer Science from the Metal Up"

by Richard Prawson and Peter Higgonson.

ARMlite Programming Reference:

"The ARMlite Programming Reference Manual"

By Peter Higgonson

PDFS for these are available for download from Canvas