

Virtual machines and emulation

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Preface

This is a live document, and is full of gaps, mistakes, typos etc.

Part I

Virtual Machines and interpreters

Chapter 1

Emulation

1.1 Low-level emulation

1.1.1 Emulating memory

big array of bytes hex numbers of some length

1.1.2 Emulating processors

emulation. cpu has operations. need to emulate them. convert to native. table with lookup for clock cycle requirements, mode etc.

1.2 High-level emulation

1.3 Containers

1.4 Virtualisation

Part II

Hardware emulation

Part III

Field-programmable gate array (FPGA)

Part IV

Hypervisors