

Module 2: Concurrency Basics

Topic 1.1: Processes

Processes

- An instance of a running program
- Things unique to a process
 1. Memory
 - Code, stack, heap, shared libraries
 - Virtual address space
 2. Registers
 - Program counter, data regs, stack ptr, ...

Operating Systems

- Allows many processes to execute concurrently
- Processes are switched quickly
 - 20ms
- User has the impression of parallelism
- Operating system must give processes fair access to resources

Task Manager

Task Manager

File

Options

View

Processes

Performance

App history

Startup


Users

Details


Services

Apps (4)


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 Google Chrome (10)


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 Microsoft PowerPoint (4)


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 Task Manager


>

 Windows Explorer


Background processes (70)


 AcroTray (32 bit)

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 Adobe Acrobat Update Service ...

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 Adobe Genuine Software Integri...

 Application Frame Host


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 Avast Antivirus (32 bit)

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 Avast Behavior Shield

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 Avast Service (32 bit)

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