Writeup 1

Alex Hoffer

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Abstract

This first write up describes important details from the completion of Project 1 for D. Kevin McGrath's Operating Systems II class. Topics from Project 1 that are to be covered in this work include the building of the Linux Yocto kernel on Oregon State's engineering server, usage of the qemu virtual machine, and a solution of the Producer-Consumer concurrency problem using the C programming language's POSIX threads execution model.

Contents

1 Log of Commands to Build Yocto Kernel

put code here

2 Log of Commands to Load Qemu

3 Flags in the listed Qemu command line

The listed Qemu command line is:

qemu-system-i386 -gdb tcp::???? -S -nographic -kernel bzImage-qemux86.bin

-drive file=core-image-lsb-sdk-qemux86.ext3,if=virtio -enable-kvm

-net none -usb -localtime --no-reboot --append

"root=/dev/vda rw console=ttyS0 debug".

The following list describes each flag:

- *qemu-system-i386* is an executable module that launches system-mode emulations of PC-type CPU hardware.
- *-gdb*
- *tcp::????*
- *-S*
- *-nographic*
- *-kernel*
- *bxImage-qemux86.bin*
- *-drive*
- *file=core-image-lsb-sdk-qemux86.ext3,if=virtio*
- *-enable-kvm*
- *-net*
- *none*
- *-usb*
- *-localtime*
- *–no-reboot*
- *–append*
- *"root=/dev/vda rw console=ttyS0 debug".*

4 Concurrency Writeup

5 Reflection

The following subsections answer the four questions as outlined on the Project 1 page on Kevin McGrath's course website.

5.1 Main point of assignment

5.2 Personal approach to problem

5.3 Ensuring solution was correct

5.4 What I learned

6 Version control log

7 Work log