Homework 1: Building ICS-OS

Objectives

At the end of this activity, you should be able to:

1. build the ICS-OS kernel and disk image;
2. run ICS-OS in QEMU and
3. run two ICS-OS commands.

1 Introduction

ICS-OS[1] is an instructional (not for production) operating system that can be used for understanding different operating system concepts. The tasks in this homework are from the ICS-OS Kernel Developer's Guide[2].

2 Deliverables

Perform the tasks below and capture screen shots. Submit a PDF file containing the screen shots.

3 Tasks

Task 1: Install dependencies

```
$sudo apt-get update
$sudo apt-get install build-essential nasm qemu-kvm tcc git gcc-multilib
```

Task 2: Clone the repository

```
$git clone https://github.com/srg-ics-uplb/ics-os.git
$cd ics-os/ics-os
```

Task 3: Build

Building the source code for the kernel and the distribution disk is accomplished using make. Make sure you perform steps 2-4 every time you make changes in the source code.

```
$make clean
$make
$make floppy
```

Task 4: Run

```
$make run-floppy
```

[1] https://github.com/srg-ics-uplb/ics-os/
[2] https://github.com/srg-ics-uplb/ics-os/wiki/Kernel-Developer's-Guide

Task 4: Run ICS-OS commands

Once the ics-os command