RTX SDD Outline

- KEEP IT SHORT: 25-30 pages, the design should be smaller than the code!

Note: Do not change the specified API in the project document nor the primitive names.

Overview/Introduction

* overall structure diagram (call graph)

Global Information

- data structures (queues, PDB, message formats, tracebuffer, etc)
- variables
- constants (PIDs, msgID, return codes, status codes, msg types, etc)
- stacks
- memory map
- don't worry about things like basic queue operations, although the priority queue is a little different so at least state something about how you're going to implement that

Primitives

- send_message, receive_message
- request_memory_block, release_memory_block,
- release_processor
- delayed_send
- set_process_priority, get_process_priority

For each primitive:

- functional outline (1-2 lines in English)
- any data structures
- pseudocode (no C!) - all I/O parameters, globals, etc..

Processes

System Processes

- keyboard command decoder
- CRT display
- null process

IProcesses (console handlers)

User Processes

- wall clock display process
- priority set process
- test processes A, B, C (don't need to repeat stuff from project document here)
  - just state there will be test processes, and 1-2 lines on what they do

For each process:

- functional outline (1-2 lines in English)
- any data structures
- pseudocode (no C!) - all I/O parameters, globals, etc..

ECE 354 SDD Content Overview

Software Interrupt (SWI) Handlers

- data structures
- functional outline
- pseudocode

Hardware Interrupt Handlers

- data structures
- functional outline
- pseudocode

Hot Keys

- What are they, their functionality, pseudocode

Initialization

- table driven approach
- data structures
- functional outline
- pseudocode

Implementation

- responsibilities of each group member
- test plan (unit, system, integration, etc)
- measurement plan
    - couple of different ideas - loop which runs send/rec and,
    - manually time it using a stopwatch
    - use another h/w timer as a stopwatch, etc

Anything else you want to add...

In Final Document (after demo), document any design changes.