SE 350 W10 Simplified RTX Description

Summary of a Simplified RTX Requirements

1 Scheduling Strategy

Four user priority levels plus an additional "hidden" priority level for the Null process, preemption is ***optional***, no time slicing, FIFO discipline at each priority level.

2 RTX Primitives

Primitives defined in sections 4.1, 4.2, 4.3 and 4.4 in the SE 350 Project Description for Winter 2010 term

3 RTX Processes

Processes defined in sections 5.1, 5.2.1, 5.2.2 (5.2.2.1 is ***optional***) and 5.3.2 as defined in the SE 350 Project Description for Winter 2010 term.

4 Error Detection and Recovery

At minimum, the RTX kernel must detect one type of error: an attempt to *send_message* a non-existent process_id. The primitive will return an error code (a non-zero integer value). No error recovery is required. It may be assumed that the application processes can deal with this situation.

Deliverables and Demo

Name the simplified RTX source code archive as instructed in section 3.3 in the project description. Submit the source code to course book system by due day as posted on the lab web site.

The simplified RTX implementation will be demonstrated to project TAs in E2-2363. All group members are required to attend the demo of the simplified RTX. Each group has 20 minutes maximum to demonstrate the simplified RTX. Use course book to book a demo time. An announcement will be posted to the class when the course book system is ready to accept simplified RTX demo reservation.