CS/ECE 354 Interrupt Kernel Structure

Original Version by Mark D. Hill 14 Nov 2001

Caveats:
Ignores exceptions beyond syscalls and interrupts.
Ignores printing, errors, warnings, dumping, and halting.
Revisions:
<none yet>

0x80000080
kernel start
switch(ExcCode)

_k_handleSys
syscall master handler
switch(syscall #)

_k_handleInt
interrupt master handler
calls all specific handlers

_k_handleOTHER
other master handlers
ignored here

_k_Done
done syscall sub-handler
halts
to finish printing

_k_Putc
putc syscall sub-handler

_k_Puts
puts syscall sub-handler

_k_Getc
getc syscall sub-handler

_k_DPenQ
enqueues a char on display's _k_DP_q

_k_KBdeQ
dequeues a char from keyboard's _k_KB_q

_k_DP_handler
display device driver:
dequeues a char from _k_DP_q for display

_k_KB_handler
keyboard device driver:
enqueues a char from keyboard on _k_KB_q

DISPLAY

KEYBOARD

KEY:
jump without return
call that will return
device access

R

E

R

R

R

R

E

E

R

(k if full & at end)

(1-7,9-15)

8

10

4

11

12

(k if empty)

(k if busy waiting)

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