

2 CP disaster sheet

- 1) ~~process~~^{CP} A is making a map entry, finds a block missing;
~~process~~^{CP} B creates the block;
~~process~~^{CP} A decrements map counts on blocks & groups up newly created block + any that follow.
- 2) ~~process~~^{CP} A is making a process, finds all necessary blocks for map entry present;
CP B deletes one of the blocks;
CP A goes to disaster.

Speed, throughput, scheduling, compactification,
ECS code, DAE, & other ^{theological questions} _{made simple.}

SF's are supposed to give damn fast responses,
like for a real-time something or another.

Thus, when an SF is {awakened}, the scheduler
{interrupted}

has to do something snappy. The current
guy has to be suspended & the SF fired
up ^{within} some short time $\leq t_1$. Normally, ^{system code} being reentrant
enough of the UL to accommodate the SF
could be copied by brute force to ECS
& the SF brought in & run. The UL is
then restored & allowed to run. I know
of some problems:

- 1) The UL may be in the middle of
a system call which is executing
ECS code in some buffer. The SF
may wipe out the buffer. It seems
like the contents of the buffers have
somehow to be preserved.
- 2) ECS may be all bart, cause
compactification is in progress. The
compactifier has to be told to cool
it. ^{It will require} ~~it~~ some piece of time t_2 to
set itself straight. In this sense, it must

be incremental.

3) The allocator isn't really reentrant.
The fight between h_1 & h_2 is obvious. ~~For~~ Some things should be noted:

- 1) ~~The~~ The SF's may have to be recompiled.
- 2) The compactifier may be moving something garbage. Either
 - a) it is allowed to finish
 - or
 - b) a mechanism for half-moving something has to be thought up.
- 3) The SF better hadn't cause anything to be allocated (even destroyed is annoying).
- 4) If there's more than 1 SF, things get complicated fast
- 5) How long can I-LOCK remain set?

Details of initiating a SF

A process may be fired up by:

- 1) getting an event
- 2) receiving an interrupt
- 3) being created.

For now, we consider only 1 (I will include 2+3 later if it falls out (or if we're forced to)).

A) The interrupt code calls the event code calls the scheduler. The scheduler detects that it's a SF awakening.

B) The scheduler may have to determine what was interrupted:

- 1) user
 - 2) system
- so as to get into (& out of) monitor mode correctly