

Stanford Linear Accelerator Center



New SNL Features

SNS Epics Meeting

November, 2000



New Features

Manual: <http://pipeline.keck.hawaii.edu:3636/realpublic/epics/seq/>

- **Runs on Unix**
(re)Implemented by William Lupton (KECK)
- **Entry clause**
- **Exit clause**
- **Timer reset control**
Implemented by Greg White (SLAC)



State Structure

```
State state_set_name {  
    option option_list;  
  
    entry { statement ... }  
    when (expression) { statement ... } new_state_name  
    exit { statement ... }  
}
```



State Options

- -e
perform entry actions even if coming from the same state
- -X
perform exit actions even if going to the same state
- -t
do not reset the time for delays when re-entering the same state



Real-life Example with Entry and Exit

```
state inj_ready
{
  option -x; /* Execute exit clause every time */
  entry
  {
    qs(3);
    NEW_STATE(Quiescent);
    MPG_SAFE
  }
  when (bbr_status < BBR_INJSAFE)
  {
    PUBLISH("BaBar went UNSAFE")
    SET_PUT(req_status_inject,0);
  } state inj_deny
  when(req_status_stop)
  {
    PUBLISH("Already stopped")
  } state inj_ready
  exit
  {
    taskDelay(1);
    CLEAR_REQS
  }
}
```