

## MakeBaseApp and SNL Exercises

This example uses an instance of the “example” IOC application template, generated using `makeBaseApp.pl`

1. Create a <top> directory for your application under your home directory:  
`cd; mkdir example; cd example`
2. Create an example application called “testApp”:  
`/opt/epics/base-3-14-11/bin/linux-x86/makeBaseApp.pl -t example test`
3. Create an IOC directory file for “ioctest”:  
`/opt/epics/base-3-14-11/bin/linux-x86/makeBaseApp.pl -i -t example test`
4. Edit your `configure/RELEASE` file and change the `SNCSEQ` line to this:  
`SNCSEQ=/opt/epics/modules/soft/seq`
5. Build the application:  
`make`
6. Prepare to execute the application:  
`cd iocBoot/ioctest`  
`chmod +x st.cmd`
7. Edit `st.cmd` and remove the `#` from the `seq` line, so that it looks similar to:  
`seq sncExample, user=userHost`
8. Execute the application (finally...)  
`./st.cmd`  
You should now see an `epics>` prompt, and be able to use the commands `dbl`, `dbpr`, etc.
9. Familiarize yourself with the contents of the startup file, the example database files in `testApp/Db` and the example sequence program in `testApp/src/sncExample.stt`  
Create an EDM screen to display the value of the counting record.
10. Verify proper operation of the sequence program: Run the application and explore the `seqShow`, and `seqChanShow` commands
11. Add a stringin record to the example database and modify the sequence program to update that record's value with the current state name. Display that new record on the EDM screen.
12. Add an error state. If the sequence remains in the high state for more than 5 seconds, it should enter the error state and stay there until the user presses a (new) reset button on the EDM screen. Add the button and additional records as necessary.
13. Verify operation: Rebuild the application and restart the IOC. Add an EDM menu control for the `SCAN` field of the example's saw-tooth record so that you can see whether the error state is entered if you slow down the counter.