

# Testbed usage

To use the Testbed with LICOS, create 4 terminal windows and name them VSC, SIU, EPU0, EPU1.

- VSC:

```
xyplex lat-elf21
reboot
cd "/nfs/slac/g/glast/online/VSC/sbc"
< startup-mv2304-vsc.vx
```

- Python:

```
from LICOS.scriptEngine.ScriptEngineConnector import ScriptEngineConnector
p = ScriptEngineConnector('lat-elf21',None,None)
p.start()
p.bootSIU()
```

- SIU:

```
cd /nfs/slac/g/glast/online/VSC
xfmx xyplex siu.fmx --tag=rad750 --target=lat-elf23
```

- Python:

```
p.mainFeedOn(siuId=1, pduId=0)
p.ssr(1)
p.powerOnEpuOnly(epuId=0)
```

Wait 20 seconds

```
p.bootEPU(epuId=0)
```

- EPU0:

```
cd /nfs/slac/g/glast/online/VSC
xfmx xyplex epu.fmx --tag=rad750 --target=lat-elf24
```

- Python

```
p.powerOnEpuOnly(epuId=1)
```

Wait 20 seconds

```
p.bootEPU(epuId=1)
```

- EPU1:

```
cd /nfs/slac/g/glast/online/VSC
xfmx xyplex epu.fmx --tag=rad750 --target=lat-elf25
```

- To power on a TEM:

```
p.powerOnTemOnly(temId=0, pduId=0)
```

- To power on CAL frontends:

```
p.powerOnCalOnly(temId=0)
```

- To set the CAL bias voltage:

```
p.setBiasVoltageCal(temId=0, biasVoltage=0x5800)
```

- To power on TKR frontends:

```
p.powerOnTkrOnly(temId=0)
```

- To set the TKR bias voltage:

```
p.setBiasVoltageTkr(temId=0, biasVoltage=0x54fe)
```

- To power on ACD free boards:

```
p.powerOnAemOnly(pduId=0, supRed=0)  
p.powerOnFreeBoardOnly(freeId=0)
```

- Start the proxies and the scriptEngine:

```
python $ONLINE_ROOT/LICOS/telemetry/DiagnosticProxy.py --config $ONLINE_ROOT/LICOS/start/vsc.cfg --vscip  
lat-elf21 [--logtime] [--noarchiver]
```

```
python $ONLINE_ROOT/LICOS/telemetry/TelemetryProxy.py --config $ONLINE_ROOT/LICOS/start/vsc.cfg --vscip  
lat-elf21 [--logtime] [--noarchiver]
```

```
python $ONLINE_ROOT/LICOS/science/ScienceProxy.py --config $ONLINE_ROOT/LICOS/start/vsc.cfg --vscip lat-  
elf21 [--logtime] [--noarchiver]
```

```
$ONLINE_ROOT/LICOS/start/scriptEngine.sh --config $ONLINE_ROOT/LICOS/start/scriptEngine.cfg --vscConfig  
$ONLINE_ROOT/LICOS/start/vsc.cfg --server lat-elf21
```

- To use LEM command/response at SIU:

```
ld < /afs/slac/g/glast/flight/ICS/binary/LEM/prod/mv2304/lem_cli/liblem_cli.o
```