

# Dalek usage

## Starting up the Dalek with its four children (from scratch)

In progress, 17 Feb 2006

LAT node	hostname
VSC	lat-elf9
SIU	lat-elf10
EPU0	lat-elf12
EPU1	lat-elf11

- Re-power the Dalek and Gasu
- Log onto one of lat-fangorn, lat-hobbit1, or lat-hobbit2, start cmx, and start four xterms. These will be referred to below as VSC, SIU, EPU0, EPU1.
- xyplex to the VSC, SIU, EPU0, and EPU1 in the xterms. Type Ctrl-X in each to reboot. e.g.

```
$ cmx start
$ xyplex lat-elf9
```

- Exit from the xyplex to the VSC with Ctrl-] (Esc) and then 'exit' (from telnet)

- At VSC xterm: Boot the VSC and load libraries with:

```
$ fmx xyplex /nfs/slac/g/glast/online/VSC/VSC_load_cmx.fmx --target=lat-elf9 --tag=mv2304
```

- At SIU xyplex: Load SIU libraries:

```
-> < /afs/slac.stanford.edu/g/glast/online/VxWorks/dalek/init_siu.vx
```

- From the workstation where the proxies and scriptEngine runs, check for and remove all LICOS related python processes.
- Turn on main feed, power on first EPU: Log onto lat-hobbit5 (test machine for LICOS), source a setup script for LICOS ('source /path/to/LICOS\_ETC/setupSE.csh' or be user glast), and start a python prompt (hereafter referred to as Python prompt). At the prompt input:

```
from LICOS.scriptEngine.ScriptEngineConnector import ScriptEngineConnector
p = ScriptEngineConnector('lat-elf9',None,None)
p.start()
p.mainFeedOn(siuId=0, pduId=-1)
p.powerOnEpuOnly(epuId=0)
```

- At EPU0 xyplex: Boot Epu0

```
-> < /afs/slac.stanford.edu/g/glast/online/VxWorks/dalek/init_epu.vx
```

- At the python prompt: Power on second EPU

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

- At EPU1 xyplex: Boot Epu1

```
-> < /afs/slac.stanford.edu/g/glast/online/VxWorks/dalek/init_epu.vx
```

- At the python prompt: Enable SSR and power on dalek font ends.

```
import VSC
p.ssr(VSC.VscProxy.Enable)
p.powerOnTemOnly(temId=0, pduId=0)
p.powerOnCalOnly(temId=0)
p.powerOnTkrOnly(temId=0)
p.setBiasVoltageCal(temId=0, biasVoltage=0x5800)
p.setBiasVoltageTkr(temId=0, biasVoltage=0x4000)
p.powerOnAemOnly(pduId=0, supRed=0)
p.powerOnFreeBoardOnly(freeId=10)
p.powerOnFreeBoardOnly(freeId=11)
```

- At SIU xyplex: Enable periodic triggering:

```
-> LATC_enable_period_free
```

- Start diagnostic, science and LHK telemetry proxies: Log onto lat-hobbit5 (test machine for LICOS), source a setup script for LICOS (or be user glast), and type (hereafter referred to as test machine prompt):

```
$ONLINE_ROOT/LICOS_ETC/runProxies.csh lat-elf9 ~/Work/vsc_lh5.cfg
```

Replace vsc cfg file with custom version if desired.

- At test machine prompt: Start scriptEngine:

```
$ONLINE_ROOT/LICOS_ETC/scriptEngine.csh --config ~/Work/scriptEngine.cfg --vscConfig ~/Work/vsc_lh5.cfg
--server lat-elf9
```

- Start LsfWriter and Analysis Engine: Log onto lat-hobbit5 (test machine for LICOS), source a setup script for LICOS (or be user glast), and type (hereafter referred to as analysis machine prompt):

```
$ONLINE_ROOT/LICOS_ETC/lsfWriter.csh ~/Work/vsc_lh5.cfg
$ONLINE_ROOT/LICOS_ETC/analysisEngine.csh --vscConfig ~/Work/vsc_lh5.cfg --aeConfig ~/Work/ae_mcr.cfg --
seConfig ~/Work/scriptEngine.cfg
```