

Building areaDetector against Debian

VS
from source

Building AreaDetector against Debian packages

- NSLS2 is using Debian distribution
- We have very recently upgraded NSLS2 distribution from epicsdeb.
- In February 2018 Mark Rivers modified the areaDetector build infrastructure to allow areaDetector to be built against Debian EPICS deployment with selected packages built from source.
- New .opi screens are converted by Mark Rivers and are available now in github in `/autoconvert/`
- Kay Kazemir have been improving .adl -> .opi translator, addressing misc. translation problems. We believe it is close to perfect now.

areaDetector built against Debian (1)

- Maximally reuse community efforts, i.e. st.cmd to run the Prosilica IOC

```
# Load all other plugins using commonPlugins.cmd  
< $(ADCORE)/iocBoot/commonPlugins.cmd  
set_requestfile_path("${ADPROSILICA}/prosilicaApp/Db")
```

- The commonPlugins.cmd load .db of the dependent modules

```
# Optional: load scan records  
dbLoadRecords("${SSCAN}/sscanApp/Db/scan.db",  
"P=$(PREFIX),MAXPTS1=2000,MAXPTS2=200,MAXPTS3=20,MAXPTS4=10,MAXPTSH=10")  
set_requestfile_path("${SSCAN}/sscanApp/Db")
```

```
# Optional: load sseq record for acquisition sequence  
dbLoadRecords("${CALC}/calcApp/Db/sseqRecord.db", "P=$(PREFIX), S=AcquireSequence")  
set_requestfile_path("${CALC}/calcApp/Db")
```

```
# Optional: load devlocStats records (requires DEVIOCSTATS module)  
dbLoadRecords("${DEVIOCSTATS}/db/iocAdminSoft.db", "IOC=$(PREFIX)")
```

areaDetector built against Debian (2)

```
oksana@xf28id1-ioc2:~$ locate scan.db  
/usr/lib/epics/dbd/menuSscan.dbd  
/usr/lib/epics/dbd/sscan.dbd  
oksana@xf28id1-ioc2:~$
```

```
oksana@xf28id1-ioc2:~$ locate sseqRecord.db  
/usr/lib/epics/dbd/sseqRecord.dbd  
oksana@xf28id1-ioc2:~$
```

```
oksana@xf28id1-ioc2:~$ locate iocAdminSoft.db  
/usr/lib/epics/db/iocAdminSoft.db  
oksana@xf28id1-ioc2:~$
```

- In the debianized modules only files in
module/db/
module/dbd/
making to /usr/lib/epics/

Discovered benefits from building areaDetector from source

- Allows reusing st.cmd file with minimal changes.
 - *dbLoadRecords("\$\$(SSCAN)/sscanApp/Db/scan.db", ...)*
dbLoadRecords("\$\$(CALC)/calcApp/Db/sseqRecord.db",...)
- Can use latest EPICS7 base
- Can easily port to Debian 7/ CentOS
- Can have more upgrade freedom with
 - AreaDetector and asyn being released ~ every 6 month.