EPICS Alarm Handler

Geoff Savage

Analog I/O Alarms

- Alarm limits
  - HIHI
  - HIGH
  - LOW
  - LOLO
- Severity
  - MAJOR - attention and dangerous
  - MINOR - attention not dangerous
  - NO_ALARM - turn off alarms

Alarm Limits

```
record(ai,"RM1/AD00")
 {
 field(DESC, "Rack Monitor RM1/AD00")
 field(DTYP, "Raw Soft Channel")
 field(INP, "RM1.AD00 NPP NMS")
 field(SCAN, "1 second")
 field(LINR, "NO CONVERSION")
 field(ASLO, "4.885E-3")
 field(AOFF, "0.0")
 field(HIHI, "9")
 field(HHSV, "MAJOR")
 field(HIGH, "6")
 field(HSV, "MINOR")
 field(LOW, "-6")
 field(LSV, "MINOR")
 field(LOLO, "-9")
 field(LLSV, "MAJOR")
 }
```

HIHI=9V

HIGH = 6V

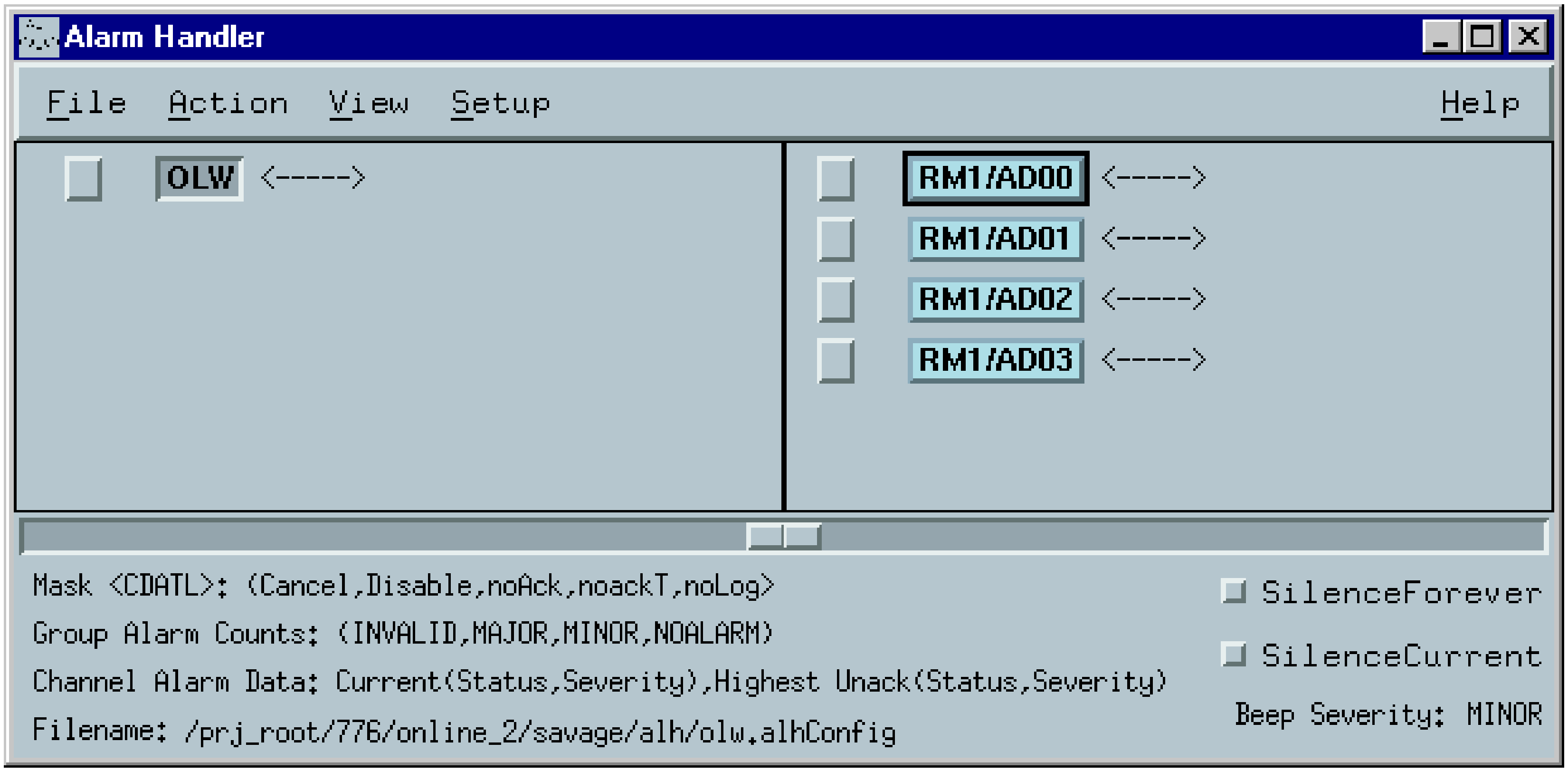
LOW= -6V

LOLO= -9V

Alarm Handler

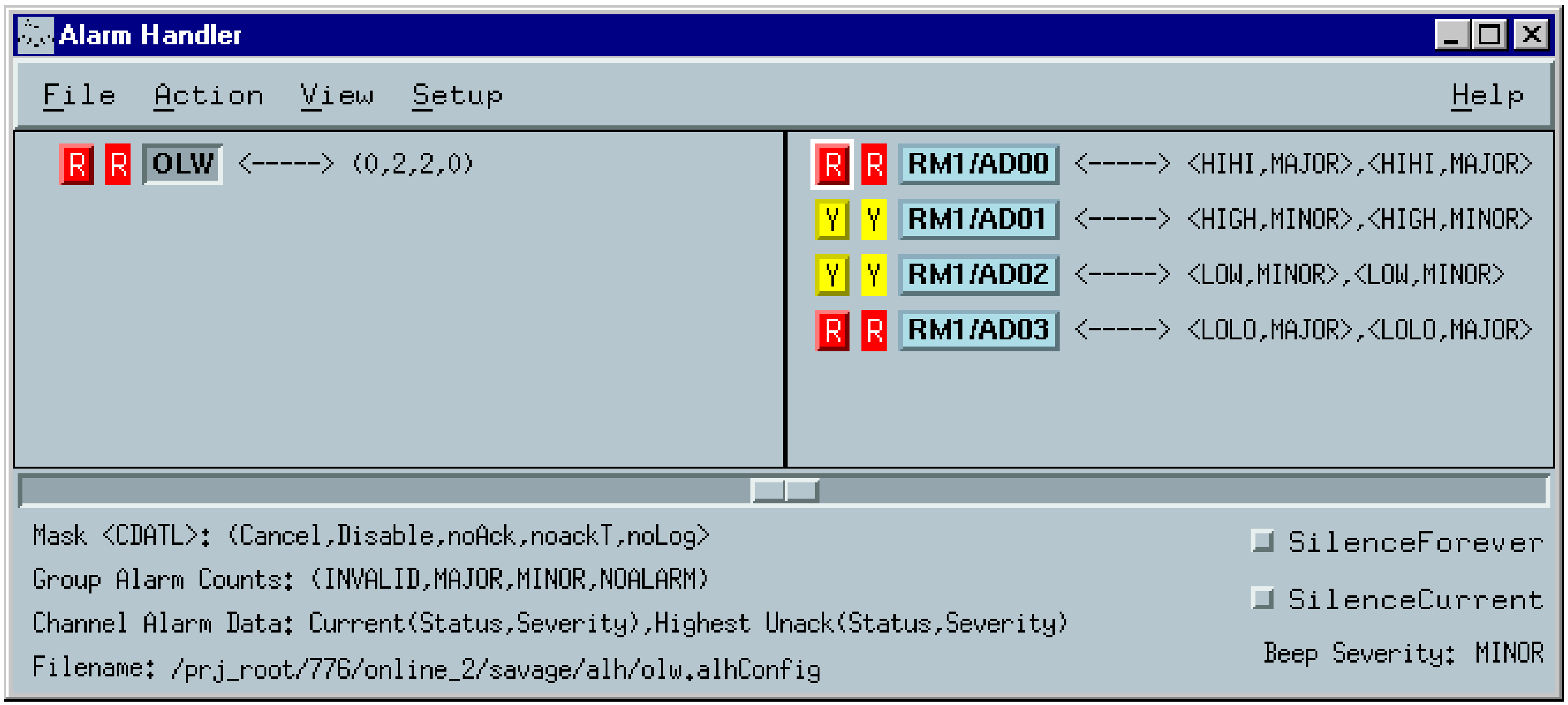
- Channel access client
- Registers for events
  - Configuration file
- Hierarchical display

No Alarms



Alarm Handler
File Action View Setup Help
OLW <----->
RM1/AD00 <----->
RM1/AD01 <----->
RM1/AD02 <----->
RM1/AD03 <----->
Mask <CDATL>: (Cancel,Disable,noAck,noackT,noLog)
Group Alarm Counts: (INVALID,MAJOR,MINOR,NOALARM)
Channel Alarm Data: Current(Status,Severity),Highest Unack(Status,Severity)
Filename: /prj_root/776/online_2/savage/alh/olw.alhConfig
SilenceForever
SilenceCurrent
Beep Severity: MINOR

Alarms


Alarm Handler
File Action View Setup Help
R R OLW <-----> (0,2,2,0)
R R RM1/AD00 <-----> <HIHI,MAJOR>,<HIHI,MAJOR>
Y Y RM1/AD01 <-----> <HIGH,MINOR>,<HIGH,MINOR>
Y Y RM1/AD02 <-----> <LOW,MINOR>,<LOW,MINOR>
R R RM1/AD03 <-----> <LOLO,MAJOR>,<LOLO,MAJOR>
Mask <CDATL>: (Cancel,Disable,noAck,noackT,noLog)
Group Alarm Counts: (INVALID,MAJOR,MINOR,NOALARM)
Channel Alarm Data: Current(Status,Severity),Highest Unack(Status,Severity)
Filename: /prj_root/776/online_2/savage/alh/olw.alhConfig
SilenceForever
SilenceCurrent
Beep Severity: MINOR