



# Alarm Handler Introduction

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# Purpose

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- EPICS PVs: *Value, Timestamp, Status*
- Alarm Handler deals with Status:  
*NO\_ALARM, MINOR, MAYOR, INVALID*
- More specific: *Severity* of PV state/sev.
- ALH logs & notifies operators
- Available for Unix/Motif and  
Win32/Exceed



# Alarm cfg. in EPICS DB

```
record(ai, "alh_value1")
{
    field(SCAN, "Passive")
    field(DTYP, "Soft Channel")
    field(HOPR, "10")
    field(LOPR, "0")
    field(HIHI, "10")
    field(HIGH, "9")
    field(LOW, "1")
    field(LOLO, "0")
    field(HHSV, "MAJOR")
    field(HSV, "MINOR")
    field(LSV, "MINOR")
    field(LLSV, "MAJOR")
}
```

Limits

Severities

Value 9.5 -> Status/Severity = HIGH/MINOR



# Startup

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- `alh [many options] <config file>`

- **Full Documentation:**

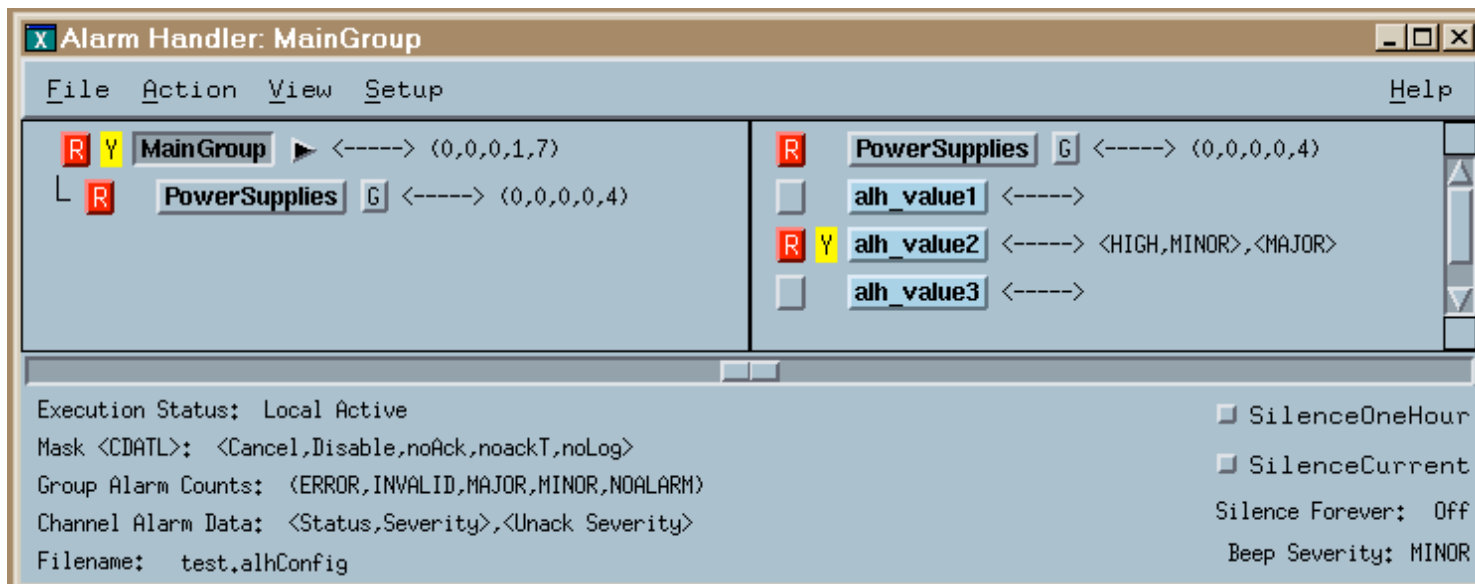
<http://www.aps.anl.gov/epics/>

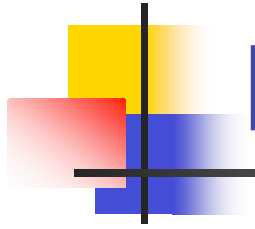
- **Simple Config-File:**

```
GROUP NULL MainGroup
CHANNEL MainGroup alh_value1
CHANNEL MainGroup alh_value2
CHANNEL MainGroup alh_value3
CHANNEL MainGroup alh_value4
```

# Operation

- Monitors given channels, displays alarms until acknowledged





# Demo Details

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- "Runtime" window shows summary
- "Main" window shows configuration and alarm group content
- Displays current as well as memorized alarm state ("transient alarms")
- *-global* option to utilize ACKT/ACKS fields
- Log files for alarms and operator actions
- Channels can be grouped
- Masks: No Ack. needed, Disable
- "Force PVs" to set masks from PV



# take2.alhConfig

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```
GROUP NULL MainGroup
CHANNEL MainGroup alh_value1
CHANNEL MainGroup alh_value2
CHANNEL MainGroup alh_value3
CHANNEL MainGroup alh_value4
```

```
GROUP MainGroup PowerSupplies
$GUIDANCE
These PVs belong to the Power-Supply subsystem.
In case of an alarm: Duck and Cover!
$END
CHANNEL PowerSupplies alh_ps1
CHANNEL PowerSupplies alh_ps2
CHANNEL PowerSupplies alh_ps3
CHANNEL PowerSupplies alh_ps4
```



# take3.alhConfig

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```
GROUP NULL MainGroup
CHANNEL MainGroup alh_value1
CHANNEL MainGroup alh_value2
CHANNEL MainGroup alh_value3
CHANNEL MainGroup alh_value4 --A--
```

```
GROUP MainGroup PowerSupplies
$GUIDANCE
These PVs belong to the Power-Supply subsystem.
In case of an alarm: Duck and Cover!
$END
$FORCEPV alh_ignore_ps -D---
CHANNEL PowerSupplies alh_ps1
CHANNEL PowerSupplies alh_ps2
CHANNEL PowerSupplies alh_ps3
CHANNEL PowerSupplies alh_ps4
```