



# whatrecord

## A Python-based EPICS File Format Tool

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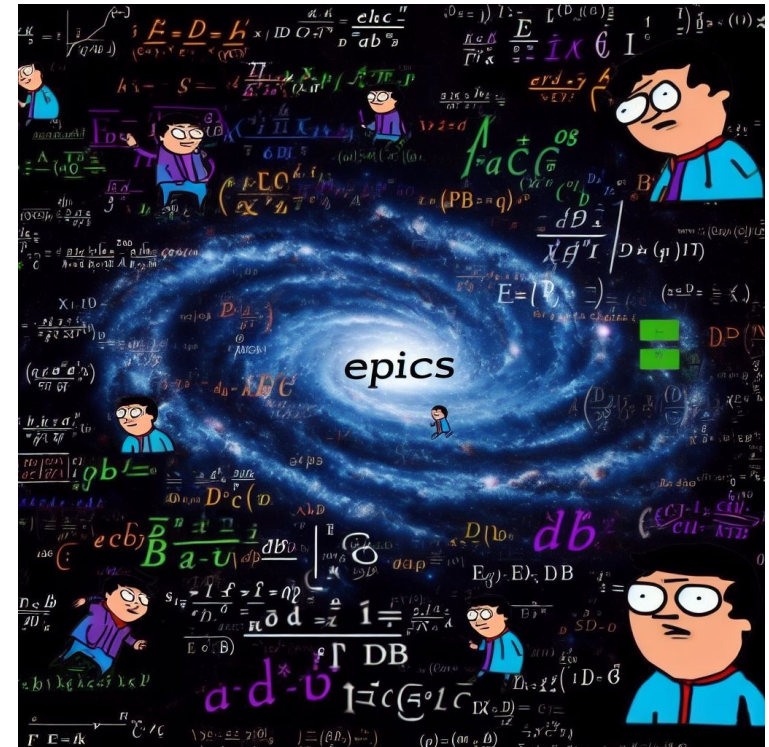
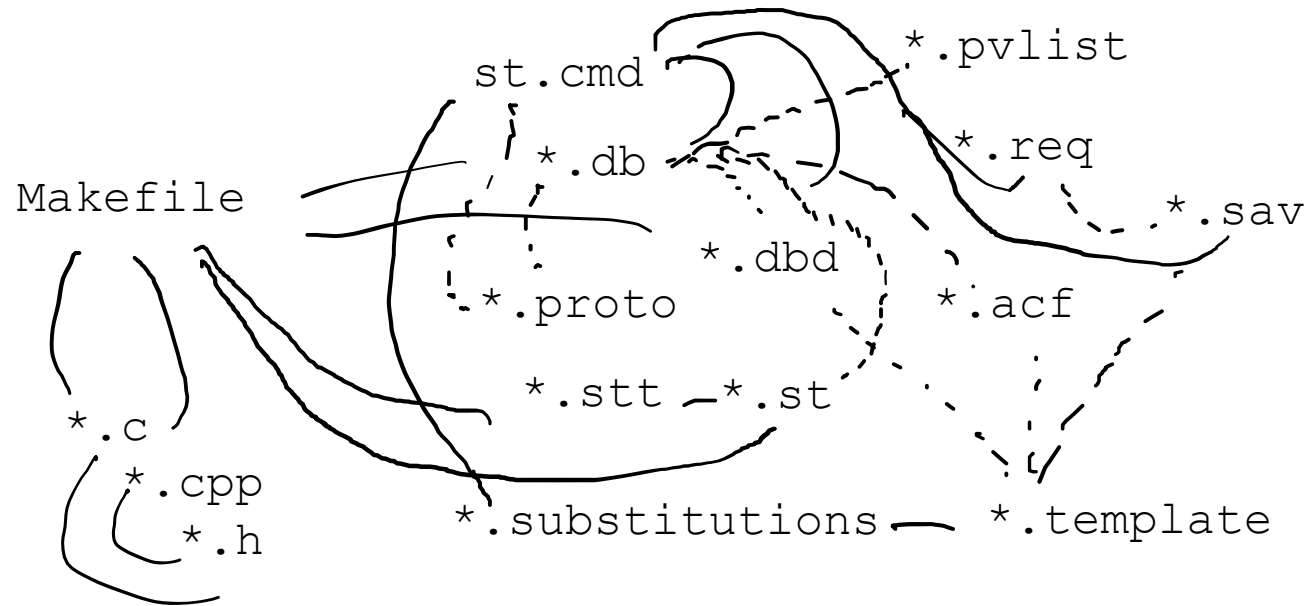
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# The inspiration

## Or the “problem”

It's too easy to get lost in the web of niche file formats that make up a standard EPICS module/IOC/tool:

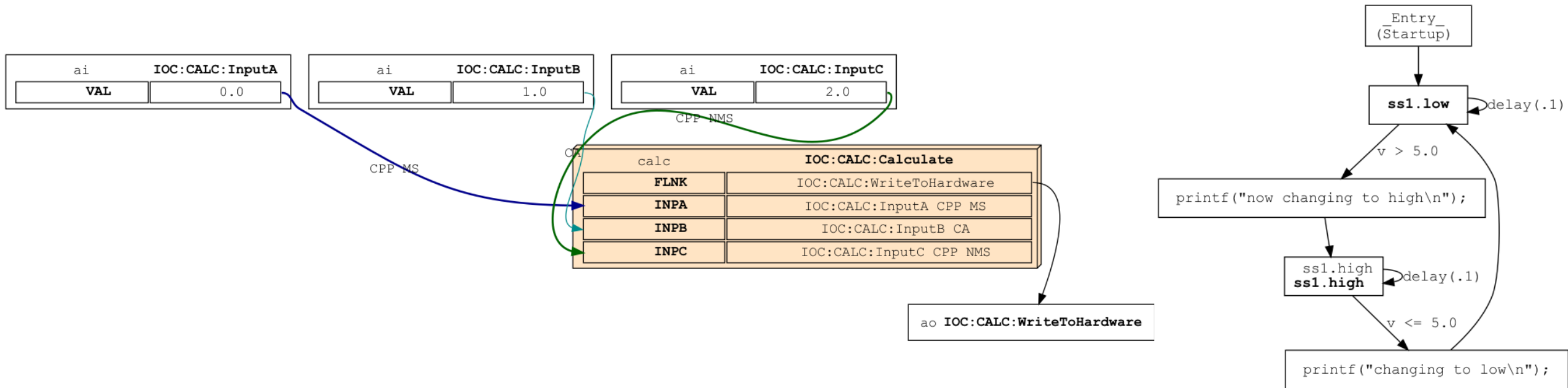


Some are linked explicitly by filename, others are linked by some implicit means (record/PV name, port name, some arbitrary string identifier, ...)

# whatrecord: file format helper of sorts

A Python tool that could make things slightly easier

- whatrecord parses common EPICS file formats and retains contextual information (`filename:line_number`)
- Interpret startup scripts: gather information from all files in an IOC
- Display information on the command-line or in a vue.js web frontend (backend API server or serverless)
- Graph record relationships or state notation language transitions



# whatrecord: the frontend

## Or a slightly nicer view of IOCs, records, and their relationships

The image displays two screenshots of the whatrecord web interface, showing record details and relationships.

**Left Screenshot: IOC:ACF:LI:OPSTATE**

Record Definition:

```
record(longin, "IOC:ACF:LI:OPSTATE") {
  field(VAL, "0")
}
```

Key-Value Pairs:

Key	Value
context	> ioc-useless-test/iocBoot/ioc-test/example.acf:9
inputs	
INPA	IOC:ACF:LI:OPSTATE
INPB	IOC:ACF:LI:lev1permit
name	DEFAULT
calc	A=1
context	> ioc-useless-test/iocBoot/ioc-test/example.acf:12
hosts	- icr - cr
level	0
options	WRITE
usage	ACF

**Right Screenshot: IOC:STREAM:log0**

Record Definition:

```
record(stringin, "IOC:STREAM:log0") {
  field(INP, "IOC:STREAM:spy")
}
```

Record links diagram:

```
graph TD
  A["stringin IOC:STREAM:spy  
VAL IOC:STREAM:spy"] --> B["stringin IOC:STREAM:log0  
INP IOC:STREAM:spy  
VAL IOC:STREAM:spy"]
  B --> C["stringin IOC:STREAM:log1  
FLNK IOC:STREAM:log0  
INP IOC:STREAM:log0  
VAL IOC:STREAM:log0"]
  C --> D["stringin IOC:STREAM:log2  
FLNK IOC:STREAM:log1  
INP IOC:STREAM:log1"]
```

# Thank you for your time.

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If this resonated with you, come chat by my poster or see the link below.

whatrecord on GitHub:

<https://github.com/pcdshub/whatrecord/>

