



How to mess up a Naming Standard in 5 Easy Steps

Dave Gurd

**EPICS Collaboration Meeting
San Jose, December 3 - 4, 2001**

An *Excellent* (!!??!!) Naming Standard was established early



- Mnemonic
- Hierarchical (to address “flat” EPICS names)

SystemPart:DevicePart:SignalPart
(A:B:C)

- » Systems have many devices
- » Devices have zero to many signals (“observable properties”)
- Name Instances should indicate device location
- Names represent **function**, not equipment
- Oriented to operations

Some Simple Examples (Lattice is Easiest)

- System Name (“A”) is: (System) (**_Subsystem**)
 - » Intention was to have a short, exhaustive list of possibilities
 - » DTL_Vac; SCL_Cryo
- Device Name (“A:B”) is: (DeviceType)(**_DeviceInstance**)
 - » Instantiation schemes defined
 - » DTL_Vac:GV62; CCL:PS_QH123; Ring:QV_A2
- Signal Name (“A:B:C”) is: (“SignalName”) (a string)
 - » Allowed signal list defined for each device type
 - » SCL:BPM301:Xavg_M2

Looked easy enough but...



- Everyone tried to apply this scheme in good faith...

but

- ... we followed these five easy steps to ruin:
 1. Keep it a secret
 2. Don't control its use
 3. Impose an unrealistically universal syntax
 4. Ignore database requirements
 5. Get the database schema wrong

Step 1. Keep it a Secret



- Early document explained underlying ideas and philosophy. These were dropped from the official document.
- Document was prepared very early – those who later actually needed it were not around when it was formulated.
- Changes were made but not universally communicated. The document was not updated.

Step 2. Don't Control it's Use



- Document assumed a “Naming Committee” to oversee names, but this never really happened.
- Small deviations from the original intent were allowed, and these grew.
- Various heretical instantiation schemes were invented and allowed to continue.
 - » Eg. Standard called for A_a:B123. We had all of:
 - A_a:B123 (The intent)
 - A1_a:B23
 - A_a1:B23
 - A_a1:B123 (Redundant)

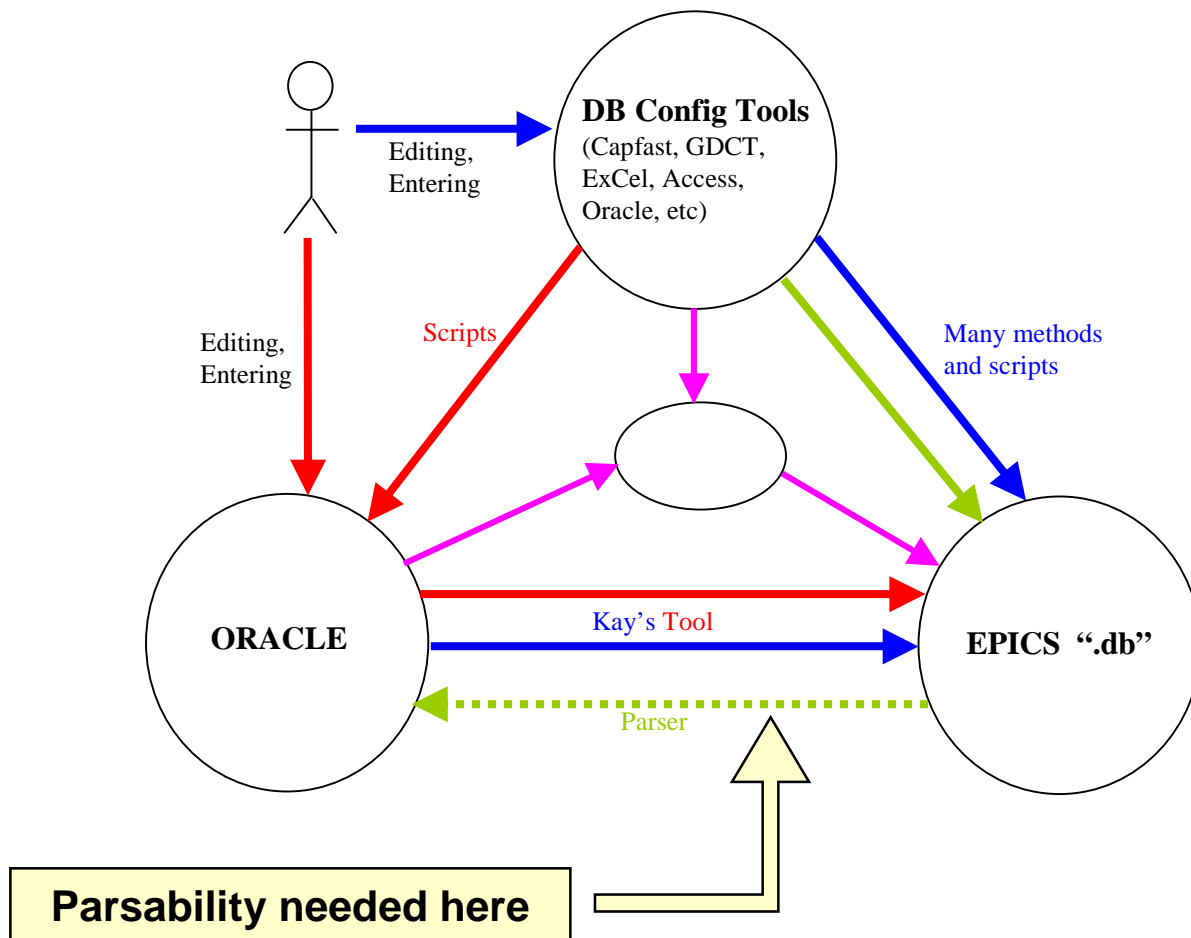
Step 3. Impose a Universal Syntax



- One Syntax (or one set of name parts) probably cannot be applied sensibly to all devices.
 - » An air conditioning unit is actually different from a BPM.

- Very creative people tried to force their cases into unsuitable formats

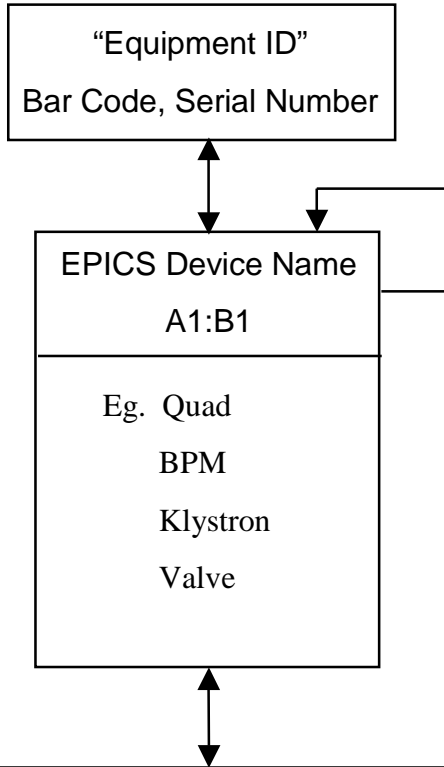
Step 4. Ignore Database Requirements



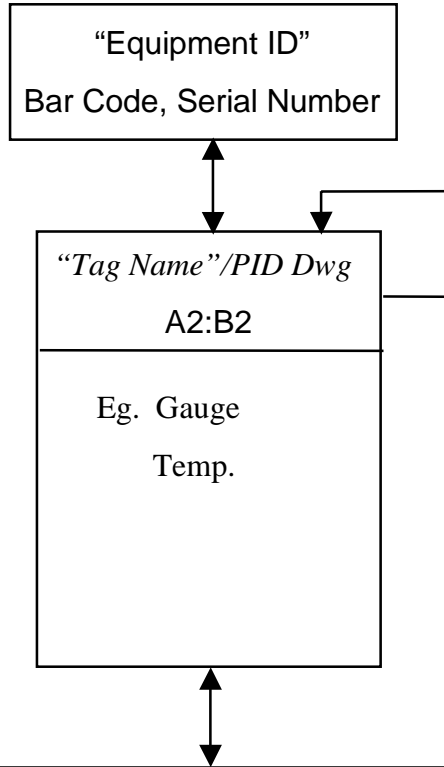
Step 5. Get the Schema Wrong *(subtle but important)*



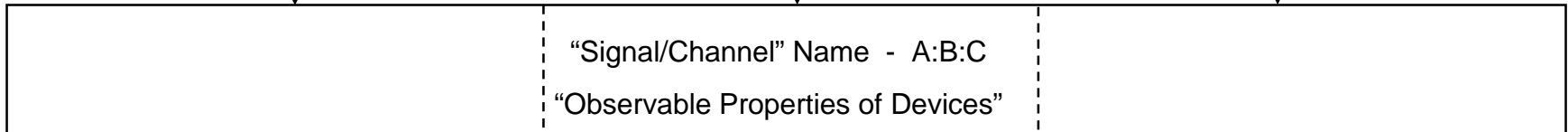
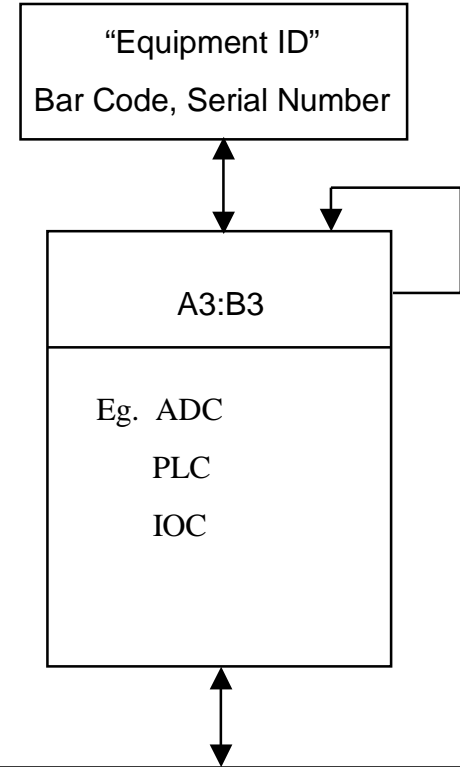
“Accelerator Device”



“Trackable Equipment”



“Signal Path”



Summary



- Consider the database requirements in developing your naming scheme
- Do it early
- Document and Advertise
- Monitor closely
- Something is better than nothing...