



Tip of the Week :

- context decorations and subsystems (relationship to doocs)

[TINE Naming Hierarchy:]

- Identity (where or what it is ...)
 - /Context/DeviceGroup/DeviceName
 - (doocs: facility/device/location)
 - (tango: domain/family/member)
- What is wanted from it ...
 - Property
 - (doocs: property)
 - (tango: attribute, command)
- Note: for historical reasons, specifying the context and device name is optional.
 - Can get an 'unknown address' if the device group (i.e. device server) name is ambiguous !

[Subsystems]

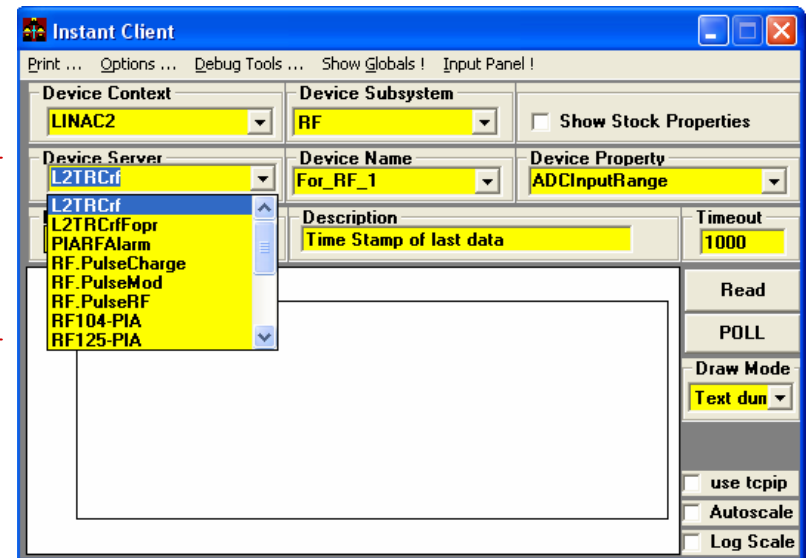
- Not part of the name space
 - i.e. does not show up in the link parameters when you establish a link.
- But you can filter on the subsystem when browsing the control system

Some redundancies here :

Doocs: LINAC2.RF/L2TRCrf/...



Facility (context) is 'decorated' with the subsystem name !



Context-Specific Central Services ...

- For example :
 - Archive
 - Alarms
 - FEC Statistics
 - Globals
 - State
- Encompass all subsystems for the context

FEC Remote Control Panel

File View Tools Help

ACQPG0.ADC	CerenkovDataSrv	RF.PILO	TTMAG1-19
ACQPG0.ADC1	DIPOLE	SEXT	TTMAG1-18B
ACQPG2.ADC	DIPOLE.PILO	SEXT.PILO	TTMAG1-18C
ACQPG2.ADC1	DOSEPWARMETER	SOL	TTMAG1-RES
BCM	DOUBLET	SOL.PILO	TTMAG2-04
BCM.Data	ENERGY.DOGLEG	SOL.MOVER	TTMAG2-03
BCM1.ADC	FIR.PILO	STEERER	TTMAG2-02
BCM2.ADC	ICCD7.CAMERA	TOROID	TTMAG2-01
BIS	KLY.ADC	TOROID1	Toroids
BITD.ADC	KLY1.ADC	TOROID2	UNDULATOR
BLM	KLY2.ADC	TOROID3	VACU2_DEVICE
BLM.ALARM	KLY3.ADC	TSP	VACU2_DEVICE
BLM.CLOCK	Kly.Data	TTF_BWS1	VIBRATION
BLM.CLOCK	LASER.CONTROL	TTF_BWS2	VibrADCs
BLM.HV	LLRF1.ADC	TTFDATA	VibrCM
BLM1	LLRF2.ADC	TTFHISTORY	VibrCM.HIST
BLM2	LLRF3.ADC	TTFMAG	VibrCM.Data
BLM3	LONGARCHIVER	TTFMAG1	VibrCMTB
BWS_TTF1	MAIN	TTFOTDR	VibrCMTB.HIST
BWS_TTF2	MINT.PILO	TTF_BWS3	VibrCMTB.Data
BWS_TTF3	ORBIT	TTFMAGDATA	XSOLENOID_1
Blms	PERSINT	TTFMAGLOCHIST	XSOLENOID_2
CALLTIME	QUAD	TTMAG1-22	XSOLENOID_T
CHARGE.CALC	QUAD.PILO	TTMAG1-21	
CYCLE	RADIATION	TTMAG1-20	

Ping all

Active: 82 of 98 (12:37:28)



Device context

TTF2

Selected Subsystems

- | | | | |
|--|---|--|---|
| <input checked="" type="checkbox"/> DIAG | <input checked="" type="checkbox"/> MAG | <input checked="" type="checkbox"/> MEX | <input checked="" type="checkbox"/> HIST |
| <input checked="" type="checkbox"/> VAC | <input checked="" type="checkbox"/> INSTR | <input checked="" type="checkbox"/> UTIL | <input checked="" type="checkbox"/> INFRA |
| <input checked="" type="checkbox"/> FEL | <input checked="" type="checkbox"/> EXP | <input checked="" type="checkbox"/> DAQ | <input checked="" type="checkbox"/> RF |
| <input checked="" type="checkbox"/> CRYO | <input type="checkbox"/> TEST | | |

ALL

NONE

OS Color Code

Dos Unix VxWorks VMS Win16 Win32 Java

FEC Importance

ALL

12:39:45: Normal

Front End

ttf2daq1.164

OS

UNIX

Address

131.169.147.151

Host Computer

ttf2daq1.desy.de

Responsible

P.Duval

Location

DESY

Device servers

ENERGY.DOGLEG

Description

DOOCS server

Ping

Control

Activity

Contracts

Clients

Alarms

Log File

Stats

Server	ttf2daq1.164
Local Time	Thu Sep 11 12:40:46
Start Time	Thu Sep 11 12:12:23
Sys Poll Rate	1000
Nr bkg tasks	0
[SRV] Nr total contracts	4
[SRV] Nr total clients	2
[SRV] TTF2/ENERGY.DOGLEG contr...	4
[SRV] TTF2/ENERGY.DOGLEG clients	1
[SRV] Nr UDP packets received	108
[SRV] Nr TCP packets received	0

How to satisfy doocs and tine:

- Server registration provides both **context** and **subsystem** for a device server (group) !
 - **subsystem** can be empty !
- Rules:
 - If **context** has a decoration (.SOMETHING) and **subsystem** is empty, then the decoration is the subsystem and is removed from the **context** !
 - e.g. TTF2.DIAG/BCM -> server BCM in context TTF2 with subsystem DIAG.
 - If **context** has a decoration and **subsystem** is not empty but identical to the decoration, then the decoration is removed from the **context** !
 - If **context** has a decoration and **subsystem** is not empty and not identical to the decoration, then the decoration is **NOT** removed.
- Exception:
 - <context>.TEST is (now) a special case (decoration never removed).

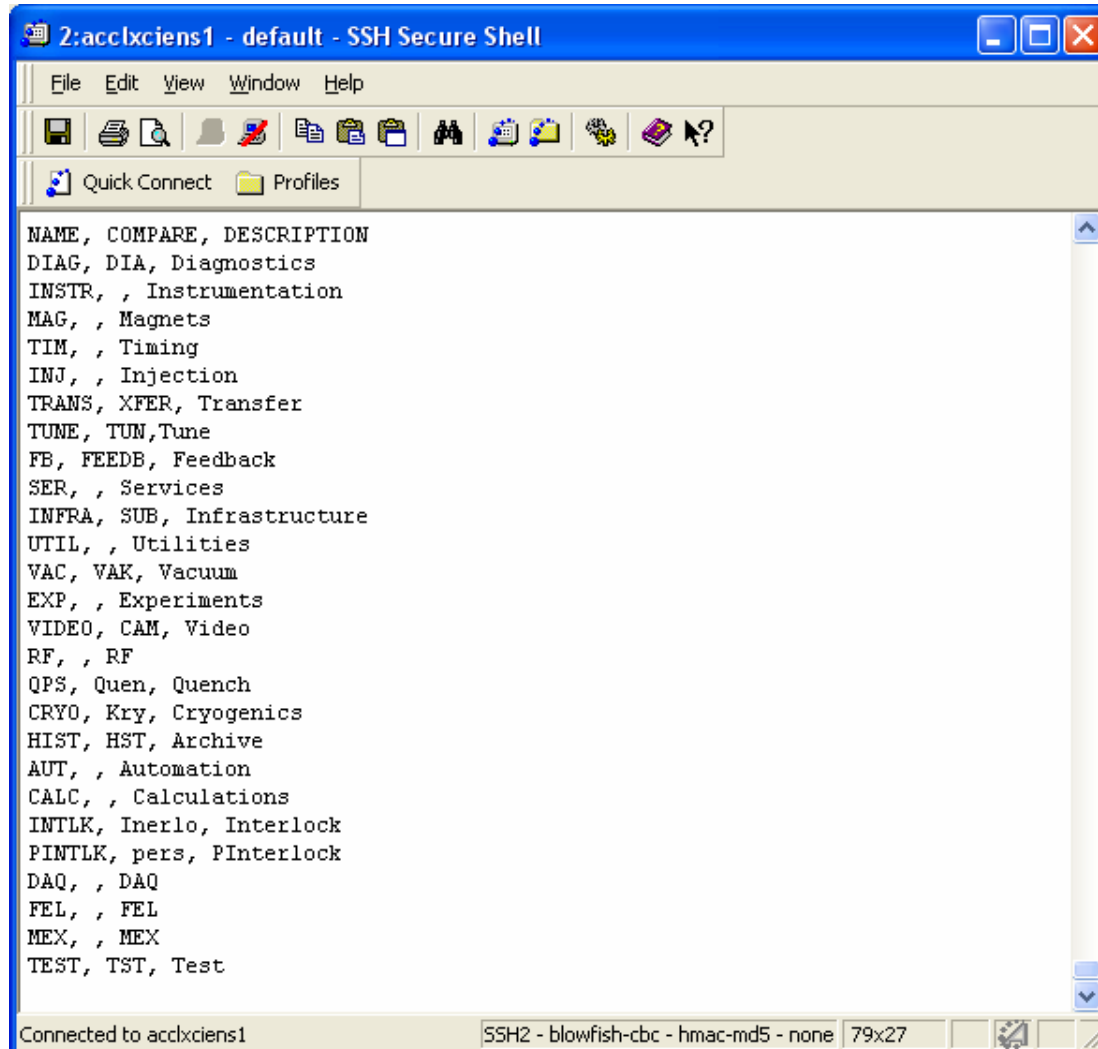
[How to satisfy doocs and tine:]

- Address resolution:
 - If server + decorated context is unknown, then is there an address for the same server in the undecorated context with subsystem = decoration ?
 - e.g. If /TTF2.DIAG/BCM unknown then try to find /TTF2/BCM with subsystem DIAG !
- Browsing from the tine side will not see the decorations anyway, but if explicitly called (using the official doocs address) the call will succeed.

[Current Context Decorations]

- <context>.TEST
- <context>.SIM
- <context>.SEDAC, <context>.CDI
- <context>.DAEMON

Current (allowed) Subsystems



The screenshot shows a terminal window titled "2:acclxcien1 - default - SSH Secure Shell". The window contains a list of subsystems with their names, abbreviations, and descriptions. The list is as follows:

```
NAME, COMPARE, DESCRIPTION
DIAG, DIA, Diagnostics
INSTR, , Instrumentation
MAG, , Magnets
TIM, , Timing
INJ, , Injection
TRANS, XFER, Transfer
TUNE, TUN, Tune
FB, FEEDB, Feedback
SER, , Services
INFRA, SUB, Infrastructure
UTIL, , Utilities
VAC, VAK, Vacuum
EXP, , Experiments
VIDEO, CAM, Video
RF, , RF
QPS, Quen, Quench
CRYO, Kry, Cryogenics
HIST, HST, Archive
AUT, , Automation
CALC, , Calculations
INTLK, Inerlo, Interlock
PINTLK, pers, PInterlock
DAQ, , DAQ
FEL, , FEL
MEX, , MEX
TEST, TST, Test
```

At the bottom of the window, the status bar indicates "Connected to acclxcien1" and "SSH2 - blowfish-cbc - hmac-md5 - none 79x27".

How to specify the subsystem (and context)

- Decorate the context and leave the subsystem empty (doocs)
- Pass the context and subsystem per API prior to initialization:
 - Equipment module object (java):
 - .setContext(), .setSubsystem()
 - Equipment module factory (java):
 - sets default for all managed equipment modules
 - .setFecContext(), .setFecSubsystem()
- Use a fecid.csv configuration file with CONTEXT and SUBSYSTEM columns
 - Sets default for all managed equipment modules
- Use an exports.csv configuration file with CONTEXT and SUBSYSTEM columns
 - Applies only to the equipment module referenced.
- Use a fec.xml configuration file with <CONTEXT> and <SUBSYSTEM> tags under the <FEC> tag.
 - Sets default for all managed equipment modules
- Use a fec.xml configuration file with <CONTEXT> and <SUBSYSTEM> tags under the <EQM> tag.
 - Applies only to the equipment module referenced