



Tango To Tine Gateway

✦ Outline

- Why do we need gateways?
- The mapping schema
- Implementation
- Example : Archive



Why do we need gateways

✦ Tine To Tango

- Petra3 experiments need to access machine data

- ✦ Undulator gap and taper, interlocks, beam current, beam position,

✦ Tango To Tine

- Petra3 experiments want to use the machine archiving system

- ✦ Motor positions, temperatures,



The Mapping Schema

- ✦ Tine server \leftrightarrow Tango class
 - All devices have the same interface
- ✦ Tine device \leftrightarrow Tango device
 - Addressable on the network with a three field naming schema (x/y/z)
- ✦ Tine properties \leftrightarrow Tango attributes and commands
 - Mapping is possible for all standard data types



Implementation

◆ Tine To Tango

- The full Tine device name is mapped as Tango device

 - ◆ context/server_name/device_name

- Properties are mapped to Tango attributes

 - ◆ The same names are used

- Properties with different input and output data types are mapped as Tango commands


 - ◆ The same names are used



Implementation

AtkPanel 3.5 : doris/globals/key

File View Preferences Help

 doris/globals/keyword

doris/globals/keyword

Device state : ON
The TINE device works fine, no alarms.

SYSTIME	1223979120.59 sec	...
DoEnergy	4.44 GeV	...
NKEYWORDS	5 No unit	...
DoDCTau	24.22 hr	...
DOPROC	SyncRun	...
NTAGS	5 No unit	...
DOTYPE	Positronen	...
DoDCCur	75.68 mA	...

Scalar KEYWORDS TAGS



Implementation

✦ Tango To Tine

- Tango class name is used as Tine server name
- A list of Tango devices (or all) of the same class can be mapped into one gateway server
- The Tine device name field shows the full Tango device name
 - ✦ domain/family/member



Implementation

✦ Tango To Tine

- Tango commands and attributes are mapped to Tine properties
 - ✦ The same names are used
- Tine context and subsystem can be chosen for the gateway



Implementation

browserInstance [Window Title]

Options **Debug Options**

Device Context: **dev** | Device Subsystem: **ALL** | Show Stock Propert...

Device Server: **TangoTest** | Device Name: **dev/tgtest/10** | Device Property: **DevBoolean**

Data Size: **1** | Data Type: **BOOLEAN** | Description: Any boolean value - Echo of the argin value | Timeout: **1000**

Read | **Poll**

Draw Mode: **Text** | Autoscale | Log Scale | InputPane

The graph displays a highly oscillatory signal. The y-axis is labeled 'ot specified No' and ranges from 0 to 300. The x-axis represents time from 0 to 250. The signal fluctuates rapidly between approximately 0 and 250. A small box in the top right corner of the graph area contains the text 'Z1'.



Example : Archive

