TINE STUDIO

Making life easy for administrators, operators, and developers …

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DESY

Operators, Engineers, Machine Physicists

display: waveforms, images, multi-channel arrays at the selected time (vertical green line).

correlate with your eye or with the correlation chart! does not obscure data with in-chart legends!

supply user annotations! (that little 'i').

Archive viewer: *trends, snapshots, correlations, movies … You name it, it does it!*

24 min 'Problems' ?
→it was the HF system !

alarms can also have data !

also accesses the archive and alarm systems …

Alarms: *view live or archived alarm details …*   **Operation/Availability**

many elements are multi-channel arrays. here: the PETRA BPMs

difference orbits are easy !

watch that bunch get filled and ejected …

RF post-mortem analysis …

Multi-Channel Analyzer   **Scope Trace Viewer**   **Transient Recorder Viewer**

Administrators

specific alarms can send email or trigger events …

what to do when an event trigger comes …

tweak archive filters, tolerances, etc.

Managing content *of the central archive, alarm and event systems ….*

TINE is plug-and-play but you can still edit ENS database information

modify watchdog configuration settings on the fly!

histories of relevant information.

Equipment **name space**   Server **watchdog control** panel …

select context, subsystem(s) and a server …

probe the selected server …

probe all servers in the selected context …

all manner of information at your fingertips

live debugging of selected server.

Remote Server Monitor   Easy to generate reports …

Developers

fill in a hardware database and go …

create your own devices, properties and their characteristics …

Server side: **CDI servers**.   **Server wizards** can help in code development …

here: we're in design time …   here: design time = run time

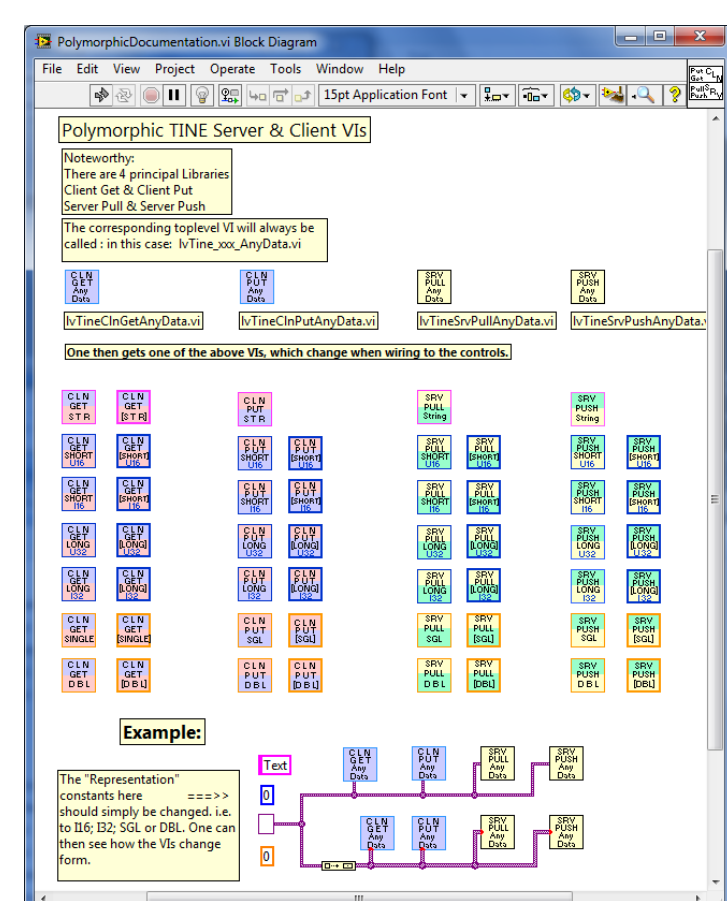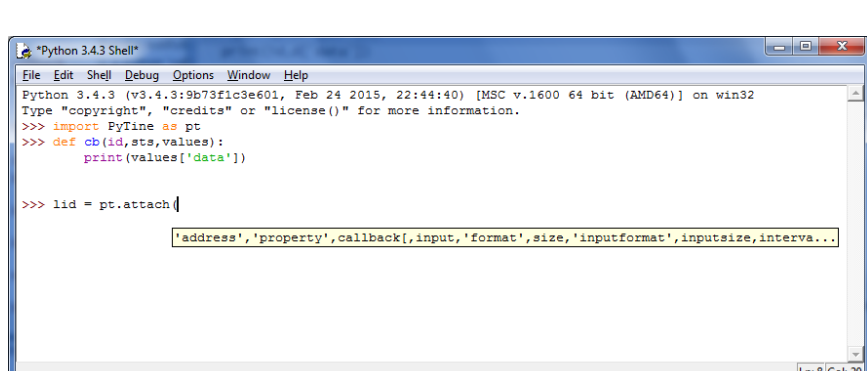Rich clients: **Acopbeans** in netbeans or eclipse …   **ACOP.NET** in Visual Studio   Use **COMA** for ultra-simple clients (no framework involved)

Some other popular client and server interfaces …

use PyQt for client GUIs. Python servers don't need GUIs.

use the official TINE MatLab API or XCOMM !

Do it yourself in **python** ….   **MatLab** ….   **LabView** …

Everyone

a single client tool for everyone …

choose monitoring method …

numerous display options …

input any data type (even UTC)

The **TINE Instant Client**: browse, access and display anything …

choose transport method …

data timestamps, system stamps …

view update response intervals

display any kind of data including structures …

and video ….

- *Operators*: verification and testing procedures not yet available in GUI applications.
- *Administrators*: checking availability and response of control system elements
- *Developers*: Checking server access.

Application requirements
- Robust
- Intuitive
- Cut-to-the-chase timely information
- No searching in arcane tree structures
- No popup pollution
- The customer is sometimes right

TINE STUDIO

Any control system studio is primary about the user:
- Operators encounter problems which need to be quickly diagnosed and corrected.
- Engineers and physicists need to readily access all machine parameters.
- Developers need to produce robust, functional and intuitive applications in a timely manner.
- Administrators need to be able to check the integrity of the controls and make modifications where necessary.

Summary
A studio should strive to meet the expectations of all of categories of users, without restricting functionality or performance. This includes the developer as well as the operator and the machine physicist and engineer as well as the administrator. The utilities presented to all categories of user should not only provide an intuitive interface but make available the information the user is most likely to need with a minimum of effort. After years of interviews, interactions, and feedback with precisely this set of users, TINE Studio is well on its way to realizing these goals.

http://tine.desy.de

it doesn't always have to have a *slick* web site to be good …