



# TINE Release 4.0 News

(Nov 11, 2011: That was the month that was !)

“What a long, strange trip it’s been ....”

# [ Release 4.2.8 ]

- **Improvements** in version 4.2.8
  - Bug fixes
    - Problem with **CF\_DEFAULT** link mapping to an identical link established with the '*correct*' targeted **format** and **size**.
      - e.g. link to property "ABC" with 1 float followed by link to property "ABC" with CF\_DEFAULT which then learns that the property returns 1 float ...
    - **Synchronous wildcard call** no longer *hangs* for either single server or multiple server group (*problem only in java*).

# [ Release 4.2.8 ]

- **Improvements** in version 4.2.8
  - 'information\_static' contract coercion
  - alarms:
    - Link error alarm tags now contain the problem server
    - Designated alarms can append text data to alarm tag
  - console command: add 'get redirections'
  - Java: 'BoundToInactiveLink' exception circumvented
  - C Lib: tagged structure work space can grow automatically

# [ Release 4.2.8 ]

- *'information\_static'*
  - returned if when a property is registered with access flag 'CA\_STATIC' and the property is *polled*.
    - Returns CE\_SENDDATA + *information\_static*
  - Client side now does the following:
    - fires the callback once
    - closes the link remotely (if not closed within the callback)
  - *Some Stock and Meta Properties do this!*

# Release 4.2.8

## ■ Link Error Alarms

Tag now contains the *problem server* !

▲ Alarm Viewer: PETRA

File View Options Navigate Help

Context: PETRA

Fatal	Error	Warning	Alarm Display
0	0	70	<input checked="" type="radio"/> Live <input type="radio"/> Archive

Thu Dec 08 15:59:40 Warning Severity >= 0 Selected/Total No. of Alarms: 70/70 Terminated Alarms Included (4 Disabled)

System	Device Name	Message	Sev	Alarm Descriptor	Alarm Time	Duration
Magnete	0 0 0	Kicker-Septa	0 0 0	● Kontrollen	0 0 39	
H.Korrekt.Mag.	0 0 0	Orbit Feedback	0 0 0	Front-End	0 0 15	
V.Korrekt.Mag.	0 0 0	Feedback	0 0 0	Diagnose	0 0 0	
e-Weg Korr.Mag.	0 0 0	PIT	0 0 0	Interlock	0 0 0	
HF	0 0 0	Timing/TopUp	0 0 0	Strahlung	0 0 0	
Piloth.-Wasser	0 0 0	Machine Prot.	0 0 0	Vakuum	1 0 0 16	
Temperaturen	0 0 0	Kolli./Scrapper	0 0 0	Undulatoren	0 0 0	
				Schirmonitore	0 0 0	

System	Device Name	Message	Sev	Alarm Descriptor	Alarm Time	Duration
Kontrollen	keyword	missing global	7	Terminated	15:32:56.113 - Dec 08 C...	10 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec
Kontrollen	Undulator	Link error ./PETRA/PET3ID01 a.CDI	8	Terminated	15:04:46.000 - Dec 08 C...	3 sec

15:59:16: Alarms loaded.

# [ Release 4.2.8 ]

- Alarm tags + text data
  - If *alarm mask* = (or contains) 0x01 AND the *alarm data* has CF\_TEXT format :
    - data appended to the *alarm tag* !
    - *beware of truncation* !
      - alarm tag is only 32 bytes in total !
    - viewer (with 'collapse equal alarms') will only show the **most recent tag** !

# Release 4.2.8

New console command:  
get redirections

jDDD Displayer (Version 1.0.2): Personenint

Datei Maschine(Regae) Optionen Hilfe

Strahlfreigabe NOT-AUS Tueren

- Tuereninterlock REGAE
- NOT-AUS REGAE
- Schluessel REGAE

AND

- Strahlungsueberwachung REGAE
- Modulator AUS REGAE

McsXpDuval01 | 08.12.11

Application Debugging console (Windows XP 5.1)

clients contracts connections messages debug level:  off  1  2  3  4 command get redirections

Current Redirection Table

```
/REGAE/PIControls/Regae_cancelBeamPermis[isConfirmRequired] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_cancelBeamPermis[isConfirmRequired]
/REGAE/PIConditions/REGAE_eStop_5[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_5[displayState]
/REGAE/PIControls/Regae_cancelBeamPermis[ready] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_cancelBeamPermis[ready]
/REGAE/PIControls/Regae_startBeaconTest[ready] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_startBeaconTest[ready]
/REGAE/PIConditions/RegaeAlatchIsOn[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAEAlatchIsOn[labelDe]
/REGAE/PIControls/Regae_AbrkIntrik[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_AbrkIntrik[labelDe]
/REGAE/PIConditions/Regae_TI[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_TI[labelDe]
/REGAE/PIControls/REGAE_resetEstop[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_resetEstop[labelDe]
/REGAE/PIConditions/Regae_modulatorOff[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_modulatorOff[labelDe]
/REGAE/PIControls/REGAE_resetEstop[isConfirmRequired] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_resetEstop[isConfirmRequired]
/REGAE/PIConditions/REGAE_eStop_2[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_2[labelDe]
/REGAE/PIConditions/REGAE_eStop_2[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_2[displayState]
/REGAE/PIConditions/regae_keyBoxOnClearance[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_keyBoxOnClearance[displayState]
/REGAE/PIControls/Regae_cancelBeaconTest[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_cancelBeaconTest[labelDe]
/REGAE/PIConditions/displayedRegae_KwLatchIsOn[displayState] -> /REGAE/PIPrivCond_RegaeP/displayedREGAE_KwLatchIsOn[displayState]
/REGAE/PIConditions/REGAE_kwSumEstop[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_kwSumEstop[labelDe]
/REGAE/PIConditions/Regae_gewart[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_gewart[displayState]
/REGAE/PIConditions/Regae_gewart[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_gewart[labelDe]
/REGAE/PIConditions/regae_keyBoxOnClearance[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_keyBoxOnClearance[labelDe]
/REGAE/PIControls/Regae_startBeamWarning[ready] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_startBeamWarning[ready]
/REGAE/PIConditions/REGAE_eStop_3[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_3[labelDe]
/REGAE/PIConditions/displayedRegae_SF Gerteil[displayState] -> /REGAE/PIPrivCond_RegaeP/displayedREGAE_SF Gerteil[displayState]
/REGAE/PIControls/Regae_cancelBeaconTest[isConfirmRequired] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_cancelBeaconTest[isConfirmRequired]
/REGAE/PIConditions/REGAE_eStop_4[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_4[displayState]
/REGAE/PIControls/REGAE_resetEstop[ready] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_resetEstop[ready]
/REGAE/PIControls/Regae_startBeamWarning[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_startBeamWarning[labelDe]
/REGAE/PIConditions/regae_radiationMonitors[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_radiationMonitors[displayState]
/REGAE/PIControls/Regae_grantBeamPermiss[isConfirmRequired] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_grantBeamPermiss[isConfirmRequired]
/REGAE/PIConditions/REGAE_modulatorOff[PROPS] -> /REGAE/PIPrivCond_RegaeP/REGAE_modulatorOff[PROPS]
/REGAE/PIControls/Regae_AbrkIntrik[ready] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_AbrkIntrik[ready]
/REGAE/PIConditions/REGAE_eStop_4[labelDe] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_4[labelDe]
/REGAE/PIConditions/REGAE_eStop_1[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_eStop_1[displayState]
/REGAE/PIConditions/REGAE_modulatorOff[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_modulatorOff[displayState]
/REGAE/PIConditions/Regae_TI[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_TI[displayState]
/REGAE/PIControls/Regae_startBeamWarning[isConfirmRequired] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_startBeamWarning[isConfirmRequired]
/REGAE/PIConditions/displayedRegae_SF Gerteil[labelDe] -> /REGAE/PIPrivCond_RegaeP/displayedREGAE_SF Gerteil[labelDe]
/REGAE/PIConditions/REGAE_kwSumEstop[displayState] -> /REGAE/PIPrivCond_RegaeP/REGAE_kwSumEstop[displayState]
/REGAE/PIControls/Regae_grantBeamPermiss[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_grantBeamPermiss[labelDe]
/REGAE/PIControls/Regae_startBeaconTest[labelDe] -> /REGAE/PIPrivCtrls_RegaeP/REGAE_startBeaconTest[labelDe]
```

# [ Release 4.2.8 ]

## ■ Java:

- 'BoundToInactiveLink' exception has been circumvented !

- e.g. 

```
TLink lnk1 = new TLink(parameters);  
TLink lnk2 = new TLink(same parameters);  
lnk2.execute();
```

- Before: *exception !*

- Now: use **lnk1** to 'peek'

- i.e. a hidden **lnk1**.execute().



# [ Release 4.2.8 ]

- C: tagged structure work space can grow!

```
int SealTaggedStruct ( char * tag,  
                    int size,  
                    int number  
                    )
```

provides a work space  
for structures  
now: initial capacity

Seals a tagged structure (registration finished!).

Call this routine to signal the structure registry that there are no more fields to be added to the tagged structure.

**Parameters:**

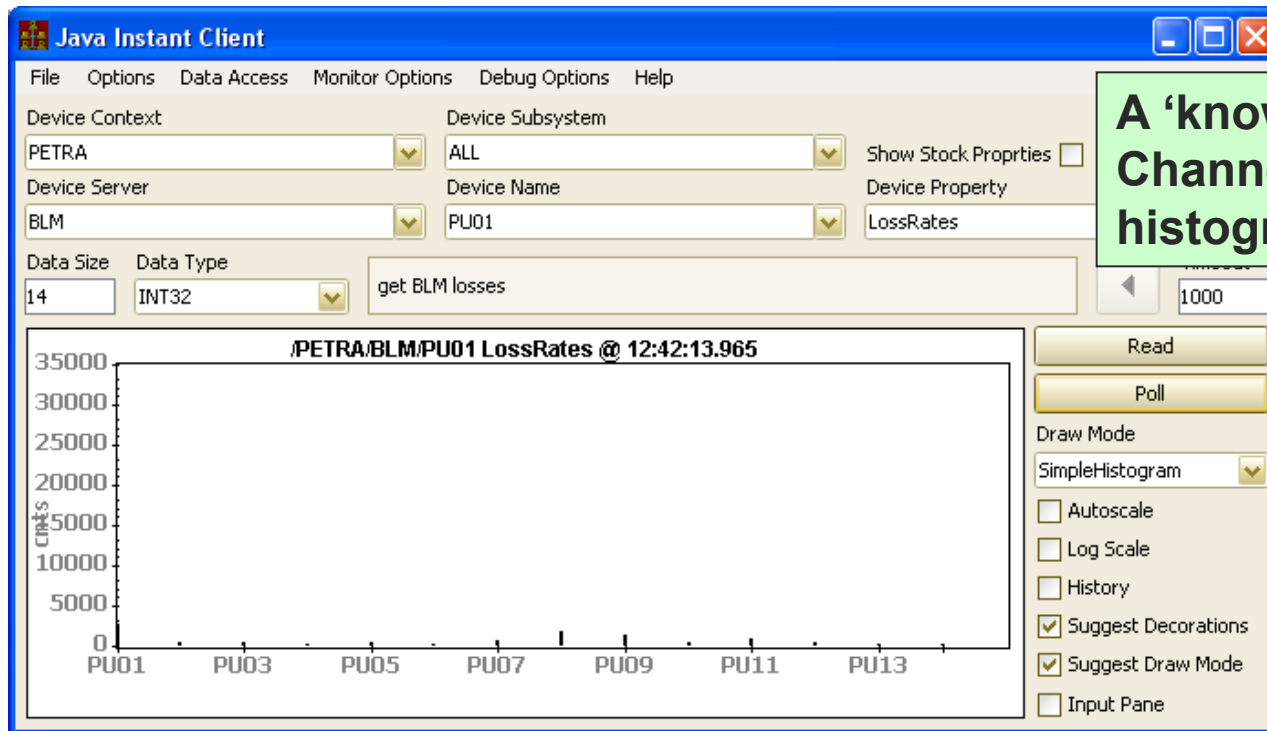
**tag** structure tag name  
**size** total size of the structure in bytes  
**number** number of elements of this structure to allocate

**Returns:**

0, un\_allocated, out\_of\_local\_memory

# Release 4.2.8

- (java) Instant Client: new feature



A 'known' Multi-Channel Array => histogram display

# Release 4.2.8

- But you want to see the values:

The screenshot shows the Java Instant Client interface. The title bar reads "Java Instant Client". The menu bar includes "File", "Options", "Data Access", "Monitor Options", "Debug Options", and "Help".

Configuration fields include:

- Device Context: PETRA
- Device Subsystem: ALL
- Device Server: BLM
- Device Name: PU01
- Device Property: LossRates
- Data Size: 14
- Data Type: INT32
- Data Access: get BLM losses
- Timeout: 1000

Buttons: Read, Poll

Draw Mode: Textbox

Options:

- Autoscale
- Log Scale
- History
- Suggest Decorations
- Suggest Draw Mode
- Input Pane

The main display area shows the following data:

```
/PETRA/BLM/PU01 LossRates @ 12:42:13.965  
(0,0) PU01: 2659  
(0,1) PU02: 317  
(0,2) PU03: 299  
(0,3) PU04: 6  
(0,4) PU05: 257  
(0,5) PU06: 225  
(0,6) PU07: 593  
(0,7) PU08: 1659  
(0,8) PU09: 1309  
(0,9) PU10: 333  
(0,10) PU11: 785
```



# Release 4.2.8

- Uncheck 'Suggest Draw Mode'

