



TINE Release 4.0 News

(June 13, 2008: That was the week that was !)

“What a long, strange trip it’s been”

TINE Kernel 4.0.2

- Link Table “black list”
 - Client Side Table
 - Calls that return certain errors will place the link in the local black list.
 - address_unknown
 - non_existent, non_existent_elem, non_existent_fec
 - illegal_property
 - After 3 consecutive errors :
 - Link is blacklisted (error = link_blacklisted)
 - Blacklist flushed every 5 minutes
 - Calls SetServerWaiting() and GetServerWaiting() added
 - Calls return ‘not_initialized’ if in waiting state.

[TINE Kernel 4.0.2]

- “link not open” -> “link timeout”
- SetAccessLock() routine properly sets access lock
 - maximum duration 60 secs
 - automatically renews if persistent
 - automatically releases if application closed.

[TINE Kernel 4.0.2]

- Local Alarm Server
 - Alarm watch table tweaks
 - Automatic alarm generation
 - Does not require alarm API !
 - almwatch.csv (also in equipment module subdirectory)
 - <ALARM> tag under <PROPERTY> in fec.xml
 - Now works in CDI server for BITFIELDS
 - Threshold alarms
 - HIGH, LOW, HIGHWARN, LOWWARN
 - Pattern alarms
 - MASK + NORMAL
 - MASK = MASK without shift
 - NORMAL = value or !value

[TINE Kernel 4.0.2]

- Local History/Archiving

- Options:

- Standard UTC timestamp or UTC + milliseconds as double (TINE timestamp)
- Storage with status
- Storage in pre-assigned 'worst-case', non-fragmented files.
- **Storage with user/system data stamps ?**
 - Thomson Broadcast & Multimedia AG : Modulator HV Pulses @ 30 Hz in a local history
 - Best identified via a pulse number (in addition to timestamp)

TINE Kernel 4.0.2

- CF_BOOLEAN type added to the format conversion routines in C.
- allow stock meta properties and allow property wildcarding when there's a property query function (doocs layer, Steve, Stefan).
- Buffered Server (LabView):
 - flat view or device oriented view
 - long time in use ! (MHF -> device oriented view)
 - Scope Trace server -> needs property oriented view !
 - Registration bugs were fixed.

[TINE Kernel 4.0.2]

- Notes about 64 bit integers
 - Not supported in all platforms!!!!!!
 - Avoid using this unless you have a very good reason!
 - Java : 'long' (implemented)
 - Win32 C, C++ : '__int64' (implemented)
 - Vista 'long'
 - Unix 32 bit : 'long long' (implemented)
 - Unix 64 bit 'long' (implemented)
 - .Net 'long'
 - VB 6, LabView, MatLab, DOS => forget it
 - VxWorks 'long long' (?)

[TINE Kernel 4.0.2]

- doocs2tine layer
 - Uses asynchronous acquisition at the client side (C code)
 - Multi-threaded use of `cycler()`.
 - ddd : no design time discovery of property characteristics
 - Run-time discovery => property query prior to link start
 - Can use `CF_DEFAULT` + late discovery (avoid query!)
 - `CF_IMAGE` format integrated !
 - Need to integrate the alarms !

TINE Central Services News

■ ENS

- 2 recent 'events' :
 - 'illegal_protocol' in a tight loop caused effective denial of service
 - only return illegal_protocol if requested protocol level > my level & < my level + 2
 - 'access_denied' in a tight loop caused effective denial of service (secondary ENS)
 - Java server bug : relentlessly trying to register
 - Back off on all attempts and give up after 30 tries.
- Address resolution bug:
 - Decorated context + server could falsely return the address for context + server if not found in decorated context !
 - `"/LINAC2.SIM/server1"` -> `"/LINAC2/server"`
 - Consequence of introducing an 'allowed subsystem' list.
 - Now repaired!

[TINE Central Services News]

- GENS

- Recently discovered:

- If group member has already registered a device list once, a later registration with a longer device list does NOT add the new devices !