



TINE Release 4.0 News

(March 6, 2009: That was the week that was !)

“What a long, strange trip it’s been”

TINE Kernel : Recent Bug Fixes

■ Java:

- Multiple, identical, simultaneous, asynchronous links + CF_DEFAULT + multiple threads
 - (For this use-case: thank K. Rehlich and jDDD)
- Protect callbacks from the watchdog thread from issuing synchronous links
 - (Thank you G. Smirnov)
- Out of Bounds exception if Local History “Points of Interest” exhaust the caller’s data buffer.
 - (Thank you W.Gerhardt)

Java API Caveat (revisited):

- Sending data from a client:

```
float[] a = new float[1];
float[] b = new float[1];
TDataType dout0 = new TDataType(a);
b[0] = (float)300.0;
TDataType din0 = new TDataType(b);
TLink link0 = new
    TLink("/TEST/LxSineServer/SineGen0", "Amplitude", dout0, din0, TAccess.CA_READ|TAc
cc = link0.execute();
```

Sends '300.0' to the server

```
float[] a = new float[1];
float[] b = new float[1];
TDataType dout0 = new TDataType(a);
TDataType din0 = new TDataType(b);
b[0] = (float)300.0;
TLink link0 = new
    TLink("/TEST/LxSineServer/SineGen0", "Amplitude", dout0, din0, TAccess.CA_READ|TAc
cc = link0.execute();
```

Now also Sends '300' to the server !

TINE Kernel: Standard Lib

- Local History: Points of interest
 - Ignore if > 100 points of interest per day
 - “point of interest”
 - $\Delta(\text{Data}) > 10\%$ Range or
 - $\Delta(\text{Data}) > 10 \times$ Tolerance
- ‘Users’ Access List now device server (rather than FEC) specific
 - Bug: still was using global flag for Open Write Access (thank you Stefan Wilke).
- Various bugs related to CF_STRING and CM_STREAM fixed. (Thanks to J. Wilgen, J. Meyer, K. Brede)
- No attempt to write fec.log if NOT ‘running as server’ (Thanks to S. Ruzin)
- ‘phantom clients’ when lots of ‘scheduling’ and dynamic links
 - Led to infinite ‘delivery pending’ problem (thank you M. Lomperski)

TINE 4.0.8 New Features

- Software failover
 - Identical server software on two stations
 - One server identifies itself as 'master'
 - The other as 'slave'
 - Either via exports.csv or fec.xml (or API)
 - "Master" column or tag
 - Gives "Master" Server name as 'alias' to physical server name.
 - Both master and slave use this
 - "SlaveMaster" column or tag
 - Gives target "Master" (physical server name) which is monitored by the slave
 - Only the slave uses this
 - Example:
 - Server "IDC1" also registers as the master for "IDC"
 - Server "IDC2" registers as a slave and monitors "IDC1" (SlaveMaster) and will become "IDC" (master) if "IDC1" disappears.
 - API calls SetFailoverPollingInterval, SetFailoverThreshold control the monitor cycle and when to 'fail over'.

TINE 4.0.8 Progress Notes

- Alarm integration with DOOCS is 'almost' complete
- MatLab API
 - 'modernized' to Release 4 standards
 - Several bug fixes
 - tine64.dll in use for 64 bit MatLab
 - No 'server' API yet, but if desired: 'Yes, we can'.
- Event Archiving of Video (CF_IMAGE)
 - Works to 'zeroth' order (Stefan will surely find problems later)
 - Asynchronous acquisition upon event trigger
 - Default duration 5 minutes (can be 'stopped' or supplied with trigger).
 - Acquisition mode can also be given (CM_STREAM, CM_POLL|CM_NETWORK, etc.)
- GENS (group equipment name server)
 - Now appears stable against the most bizarre scenarios !!!
(But people have stopped using it)

TINE 4.0.8 New Features

- Even more information updated/include in the TINE web site.
- Downloads (most recent 'designated release' + 'daily build'):

TINE Downloads

The following downloads for TINE are available at the present moment:

- C Source Modules as Windows ZIP (tineSource.zip) ~.5 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- C Source Modules as linux gzip (tineSource.tar.gz) ~.5 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- Windows 32 bit + applications and resources + LabView VIs (tineWin32.zip) ~27 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- Windows CE TINEwindowsCE.zip: [Release 4.0.8](#)
Win CE specific documentation [here](#)
- Windows, DOS 16 bit + applications (tineWin16.zip) ~3 Mbytes: [Release 3.31](#)
- Linux (and FreeBSD) + applications (tineLinux.tar.gz) ~3 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- Solaris + applications (tineSolaris.tar.gz) ~1 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- HPUX + applications (tineHPUX.tar.gz) ~ 1 Mbyte: [Release 4.0.8](#) or the [daily build](#)
- MACOS + applications (tineMac.tar.gz) ~ 1 Mbyte: [Release 4.0.8](#) or the [daily build](#)
- VxWorks (tineVxWorks.tar.gz) ~.4 Mbytes: [Release 4.0.8](#) or the [daily build](#)
- Epics2Tine sources (e2t.tar.gz) ~.2 Mbytes: [Release 4.0.8](#)
- NIOS I (tineNIOS.zip) ~.5 Mbyte: [Release 3.31](#)
- VMS (tineVMS.zip) ~150 Kbytes: [Release 4.0.8](#) or the [daily build](#)
- JAVA as windows ZIP (tineJAVA.zip) ~1 Mbyte: [Release 4.0.8](#) or the [daily build](#)
- JAVA as unix gzip (tineJava.tar.gz) ~ 1 Mbyte: [Release 4.0.8](#) or the [daily build](#)
- autoproc process manager (as unix gzip): [autoproc_1.0.5-1.tar.gz](#) (~.4 Mbytes) (compile requires libpth2, libtcpd)
- video system tools (windows) (videosystem.zip): [for > Release 4.0.6](#)
- CDI sources - windows ZIP file (CDI.zip) ~.5 Mbytes: [Release 4.0.8](#)(~.5 Mbytes) or the [daily build](#)
- CDI sources - Linux gzip file (cdiLinux.tar.gz) ~.5 Mbytes: [for Release 4.0.8](#)(~.5 Mbytes) or the [daily build](#)
- NetWork Queue sources and documentation - windows ZIP file (NQv1RC3-Release.zip): [Release 1.0](#)

Please consult the TINE archive [directory listing](#) for previous or alternative downloads.

TINE 4.0.8: Site Deployment

- 'Office Deployment'
 - Always use 'latest and greatest'
 - Test as much as possible and release
 - 'extreme program' through the rough spots
 - 'The way of greatest progress'
 - But ...
 - Critical servers and applications need to start in a 'known' configuration
- 'Field Deployment'
 - 'Stable' repository updated less frequently, on maintenance periods, and after numerous 'acid' tests.