

LinkTenn32 Revision History



Revision: S
Date: 9/15/2008
For Software Version: 1.30

Tidal Engineering Corporation

**Award Winning Embedded Test and Measurement
and Data Acquisition Products for OEMs**

"Best in Test" 1999, 2001, 2005

LinkTenn32 User Manual

Part Number TE1499

©2002, 2005 Tidal Engineering Corporation. • All rights reserved.

Notice to Users

TIDAL ENGINEERING PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE-SUPPORT DEVICES OR SYSTEMS UNLESS A SPECIFIC WRITTEN AGREEMENT REGARDING SUCH USE IS ENTERED OBTAINED FROM TIDAL ENGINEERING PRIOR TO USE.

Life-support devices or systems are devices or systems intended for surgical implantation into the body or to sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling and user's manual, can be reasonably expected to result in significant injury. No complex software or hardware system is perfect. Bugs are always present in a system of any size. In order to prevent danger to life or property, it is the responsibility of the system designer to incorporate redundant protective mechanisms appropriate to the risk involved. All Tidal Engineering products are 100 percent functionally tested. Additional testing may include visual inspections. Specifications are based on characterization of tested sample units rather than testing over temperature and voltage of each unit. Additional testing or burn-in of a system is available by special order. Tidal Engineering reserves the right to make changes and improvements to its products without providing notice.

Trademarks

TIDAL ENGINEERING IS A REGISTERED TRADEMARK OF TIDAL ENGINEERING CORPORATION.

Tidal Engineering Corporation
2 Emery Ave
Randolph, NJ 07869

Tel: 973-328-1181
Fax: 973-328-2302

Email: info@tidaleng.com

[illegible]

Table of Contents

1. Revision History.....	1
1.1 Release 1.30	1
1.2 Release 1.29	1
1.3 Release 1.28	2
1.4 Release 1.27	3
1.5 Release 1.26	3
1.6 Release 1.25	3
1.7 Release 1.24	3
1.8 Release 1.23	3
2. Bug Fixes.....	4
2.1 Release 1.30	4
2.2 Release 1.29	4
2.3 Release 1.28	5
2.4 Release 1.27	6
2.5 Release 1.26	6
2.6 Release 1.25	6
2.7 Release 1.24	6
2.8 Release 1.23	6
3. Known Issues.....	7
3.1 Release 1.30	7
3.2 Release 1.29	7
3.3 Release 1.28	7
3.4 Release 1.27	7
3.5 Release 1.26	8
3.6 Release 1.25	8
3.7 Release 1.24	8
3.8 Release 1.23	8
4. Releases prior to 1.23.....	13
4.1 Revision History	13
4.1.1 Release 1.22	13
4.1.2 Release 1.21	14
4.1.3 Release 1.20	15
4.1.4 Release 1.19	15
4.1.5 Release 1.18	15
4.1.6 Release 1.0.17.30	16
4.2 Bug Fixes.....	18
4.2.1 Release 1.22	18
4.2.2 Release 1.21	18
4.2.3 Release 1.20	18
4.2.4 Release 1.19	18
4.2.5 Release 1.18	18
4.2.6 Release 1.0.17.30	19
4.3 Known Issues.....	19
4.3.1 Release 1.22	19
4.3.2 Release 1.21	19
4.3.3 Release 1.20	19
4.3.4 Release 1.19	19
4.3.5 Release 1.18	20
4.3.6 Release 1.0.17.30	20
4.3.7 Release 1.0.16	20
4.3.8 Release 1.0.15	21

1. Revision History

This section describes any new features incorporated into LinkTenn32 since first release.

1.1 Release 1.30

Release 1.30.21

No new features added this release.

Release 1.30.20

Added a Temperature / Pressure (CH 3) configuration for VT5 controllers that have a three channel configuration where pressure is on channel 3. In this configuration channel 2 is not displayed or controlled. This is a workaround until multichannel configurations support is added.

Added TCP/IP, GPIB, and RS232 support for Thermotron 4800 via Synergy488 Module.

Added profile support for Thermontron 4800.

Improved Synergy488 module communication support for VT3 and W942.

Added 'Set Time' feature to VT3 for easier setting of controller time.

Added ability to save 'Process Graph Data' to a CSV file for later viewing or archiving.

Added Temperature Only configuration to VersaTenn 5, Synergy Controllers and compatibles.

Release 1.30.Beta

Added a Temperature / Pressure (CH 3) configuration for VT5 controllers that have a three channel configuration where pressure is on channel 3. In this configuration channel 2 is not displayed or controlled. This is a workaround until multichannel configurations support is added.

Added TCP/IP, GPIB, and RS232 support for Thermotron 4800 via Synergy488 Module.

Added profile support for Thermontron 4800.

Improved Synergy488 module communication support for VT3 and W942.

Note: User Manual has not been completely updated for this release and may contain typos and other inconsistencies.

1.2 Release 1.29

Release 1.29.53

No new features added this release.

Release 1.29.52

Added Temperature Only (Temp Only) single channel configuration for the Watlow F4 (WF4) using a Watlow F4S single channel controller.

Release 1.29.51

Added Temperature/ Pressure configuration for VersaTenn 5 /Synergy Controller /Compatibles (VT5).

Release 1.29.50

Added the ability to communicate with Tidal Engineering's TCweb Temperature Acquisition System via TCP/IP Telnet. This new feature allows the addition of up to 160 external temperature sensors for UUT testing and data logging for controllers that do not have that capability builtin. To learn more about the TCweb Temperature Aquisition System, visit Tidal Engineering's Website at www.tidaleng.com to download press releases and the latest user manual.

Added enhanced method of displaying PDF files. Menus have been changed to reflect new error displays when PDF files do not exist in proper folders.

Added enhanced Alert system menu option, caption changes to denote action when clicked.

Added enhanced chamber definition display for better readability and smoother operation with Tooltips added for detail information.

Added VersaTenn 3 Temperature Only mode configuration support.

Added messages to Alarm Limits screen to indicate that delay setting are disabled when limit checking is enabled.

Added new print with white background feature for graph printouts.

1.3 Release 1.28

Release 1.28.82

Enhanced 'General Status' message to include Chamber Status, Chamber Alarm(*) or Program Alarm Flags(+).

Default logging criteria check boxes are now cleared when creating a chamber. Must select at least one before logging can be enabled.

Added Temperature/Altitude mode for Watlow F4. Channel 2 units are set for "Kft".

Release 1.28.81

Updates resize control to v4.1.

Changes default installation to 'ALL USERS', so all user of PC can use application.

Enhanced resize event Error reporting/handling.

Release 1.28.80

Revised LinkTenn32 User Manual, added a section for each controller so information can be grouped together for easy reference. Created a release notes page, a new document to hold past and current revision information, and revised the Quick Start Guide.

Adds new Autoload feature for loading chamber windows on application startup. Feature is set via Preferences menu or when defining a chamber.

Adds support for RS485 networking using the Synergy488 module. Currently only the Watlow F4 and Partlow 1460 controllers are supported.

Adds Autostart step profile support for VT3, VT4, VT5, and WF4 controllers. See specific controller section for details.

Adds drop down list of RS232 presets for controllers and communication methods. This makes it easier in selecting default parameters for controllers and communications.

Adds Temp / Vibration - Halt/Hass configuration for Versatenn 5 controller and compatibles.

Adds a 'GPIB PC Card Define' communication method to specifically define the PC GPIB interface without using a combined communication method (Synergy488/GPIB IEEE). For GPIB communications the PC interface must be defined first, then define subsequent chamber GPIB communication devices during chamber definition by choosing appropriate GPIB method.

Adds support for a Watlow F4 Temperature / Temperature mode.

Adds display for Watlow F4 analog inputs via the Events tab.

Adds an enhanced profile run display with step time remaining information for VT3, W942, and WF4.

Adds a default input code message for code 7222 upon chamber load for Partlow 1460/62.

Removes Hold Event Support for Watlow F4 Hold step with this version (1.28.80).

Numerous background fixes and enhancements to optimize functionality of GUI interface and ease of operation.

1.4 Release 1.27

Adds new controller support for Yokogawa 550/750.

1.5 Release 1.26

Adds new Hasp Key driver to support Windows XP SP2. After installing application on a Windows XP machine with SP2, the key is not recognized by the application. The new Hasp key drivers solved this problem. Pertains to release build 1.26.29 and later.

Adds new Alarm and Deviation checks feature which has programmable delay settings. See '[Alarms Tab](#)' for more information..

The Watlow F4 can now utilize the Synergy-TCPIP communication method which utilizes the Synergy488 module to provide ethernet TCP/IP connectivity. See 'Supported Controllers' for more information.

Corrected chamber window status messages when port disconnects abruptly. Chamber status would indicate a 'Connecting' state which was not correct. LinkTenn32 now displays the proper chamber state when a port disconnects abruptly or due to error.

Corrected a problem whereby the same TCP IP address could not be used for a chamber that had its controller changed. LinkTenn32 now allows the utilizing of the edited chamber TCP IP address if the controller has been changed and supports that communication method.

Added command button on the events page of the VT5 and Synergy controllers to 'Acknowledge all errors'. This will allow errors that self clear to be removed from the controller's error list. This button will not clear errors where the error condition still persist, the cause of the error must be determined and rectified first. The button does allow remote 'ACK' of all errors at once, thereby removing the need to manually 'ACK' the error at the controller which will allow the error to clear if the condition does.

1.6 Release 1.25**Release 1.25.07**

Adds new preset button for Synergy488-RS232 communication method under the define a port menu selection.

Release 1.25.06

Adds new communication method called Synergy-RS232 which utilizes the Synergy488 RS232 port to communicate with Versatenn 3, Watlow 942, Watlow F4 and Partlow 1460/62 natively using ASCII or Modbus RTU as required. See 'Supported Controllers' for more information.

Release 1.25.05

Minor documentation corrections and a VT4 profile bug fix. Added capability to selectively display alarms for Partlow 1460/1462 profile controller. Change of IEEE-GPIB communication method to reflect use of Synergy488-GPIB interface. No change to GPIB operation. Enlarging of chamber window to allow displaying of longer port names. All Ethernet-TCPIP / Synergy488-TCPIP ports are now defined from the ports menu allowing for a easier user interface. LinkTenn32 now supports download of infinite loop step for VT5.

Added RS485 communication support for the Partlow 1460/1462 profile controller. Added more descriptive error messages when certain functions executed during initial chamber window connection sequence. Added more descriptive headings to sections of the manual concerning controller communication methods setup.

1.7 Release 1.24

Added support for the Partlow 1460/1462 profile controller. Added profile control support to the watlow F4 controllers.

1.8 Release 1.23

Increased PC serial port support to 16 ports. Minor upgrade release.

2. Bug Fixes

This section describes bug fixes incorporated for LinkTenn32 since first release.

2.1 Release 1.30

Release 1.30.21

Fixes a bug with Yokagawa 750/550 events that prevents profiles from being downloaded with ramp times over 99 minutes.

Updates Aladdin driver install program to version 5.50 for Windows XP only.

Release 1.30.20

None this release.

Release 1.30.Beta

None this release.

2.2 Release 1.29

Release 1.29.53

Fixes a channel two scaling display problem introduced when adding the Temperature Pressure configuration for VersaTenn 5 /Synergy Controller /Compatibles (VT5).

Release 1.29.52

Fixes an intermittent 90103 (No response from controller) error when a Watlow F4S single channel controller is used with a Synergy488 module.

Release 1.29.51

None this Release.

Release 1.29.50

Fixed graph pop-up menu intermittent collapse and expand issue. Now uses discrete buttons instead of pop-up menu.

Fixed Y750 Decimal point display issue. Application now uses proper variable to display process variables with proper decimal point (scaling).

Changed exported log file LogTime and Time field formats to reflect a 24-hr clock for easier importing.

Fixed TCP/IP address format check where parts 1,3 can be zero. Original check did not allow this.

Fixed WF4 profileoneexists check problem by adding special read enable mode.

Fixed VT5 Multiple alarm display, if multiple alrms occurred only the last one would display.

Fixed Y750 WaitStep issue, user must supply actual value for step to work properly. Controller does not support wait for just time.

Fixed database cleanup error in 'FCLEAR_NON_USED' function, log records could be left orphaned.

Fixed VT4 Profile issue where profile would not stop on end step.

Fixed VT3 Channel 2 display when controller is in Extended range mode.

2.3 Release 1.28

Release 1.28.82

Fixed RS485 and GPIB device addressing. RS485 is single ended so only address 1 is available.

Fixed RS232 and RS485 controller communications preset clearing problem. Dropdown List was continuously being loaded if 'Back' button was clicked then "Next".

Release 1.28.81

Fixes Alarm Updating so repeat alarms are now flagged for Alert System. Converts automation errors to hex equivalents.

Fixes 'Msgs' tab alarm sorting problem.

Fixes Alert System "Subscript out of range (SetTime)" Error.

Fixes Alert System unrecognized Category error.

Fixes test email addressee issue where alerts are sent to test email addressee after sending a test email.

Fixes misspelled 'Tenney' Name on main form caption and PDF error displays.

Release 1.28.80

Fixes a occasional graph error where the graph index times are out of synchronization. Now all graph time indexes are synchronized with main chamber timer so this error will not occur.

Fixes graph control resource hogging problem when more than one chamber is utilizing the RS485 networking capability.

Fixes Hold step skip over problem, and Profile step time display problem with Partlow 1460/62. Corrected profile step time remaining display, set cycles parameter to 1 when no loop step is defined for a downloaded profile so the profile only runs once.

Fixes Partlow input select button blinking problem.

Fixes Partlow PB2 and PB1 values displayed in wrong order.

Fixes discrepancies with Partlow parameter descriptions. Some parameters used modbus command names which do not correlate to the controller parameter which causes confusion. Corrected various other problems with Partlow display and moved variables specific to running profiles to the profile tab (Profile Control). Application now downloads profile to Profile number 1.

Fixes VT3 problems with humidity display when switching between Temp / Humidity and Temp / Pressure mode.

Fixes possible problem with Watlow 942 events tied together for a profile hold step. Now both are defaulted to the OFF position.

2.4 Release 1.27

After downloading a profile to an WF4 controller all my previously saved profiles are not there anymore. Why?

When downloading profiles to controllers, all profiles were created in profile number 2. This was done so as not to interfere with profile number 1 which was used on some controllers to restore controller settings in case of power outage. To accomplish this on an WF4 all profiles had to be deleted first and a dummy profile created in slot 1, then create profile number 2. The WF4 does not allow completely random profile creation, please read "Creating and Identifying F4 Profiles through Communications" on the Watlow website which will explain this in detail.

With this release LinkTenn32 will download to profile 1 for an WF4. This does not require deletion of all prior profiles beforehand but will overwrite profile number 1. This will allow coexistence with other profiles and does not interfere with controller restore process.

2.5 Release 1.26

When installing application on a Windows XP machine with SP2, the Hasp Key is not recognized. Release build 1.26.29 and later solves this by installing updated Hasp key drivers for Windows XP with SP2.

When editing a chamber and the controller type is changed, LinkTenn32 does not allow reselection of a previously used TCP/IP port. Also erroneous messages will be displayed during the definition of a chamber if a TCP/IP port is not selected. This has been corrected this release. LinkTenn32 allows the reselection of a TCP/IP port for a edited chamber if the controller type is changed and the proper messages are now displayed accordingly.

If a profile running on a VT5 controller is paused, LinkTenn32 will reset its profile control buttons. This has been corrected this release. LinkTenn32 will not reset profile control buttons when the profile is paused (Hold) on a VT5 controller.

When a defined chamber port disconnects abruptly due to error or other reasons, the chamber window status indicates a status of 'Connecting'. This has been corrected this release. LinkTenn32 now displays the proper chamber status messages based on current chamber state.

2.6 Release 1.25

None this release.

2.7 Release 1.24

None this release.

2.8 Release 1.23

None this release.

3. Known Issues

This section describes the known issues and work arounds for each release of LinkTenn32.

3.1 Release 1.30

Release 1.30.21

Same as Release 1.30.Beta

Release 1.30.20

Same as Release 1.30.Beta

Release 1.30.Beta

Aladdin Hasp Key Driver Issue.

After application installation completes and the Hasp key is inserted, the 'Add New Hardware wizard' may appear; this happens only on Windows XP with SP2 installed, the procedure outlined in Aladdin Hasp Key Driver Install Issue_D10122006 app note should be followed to complete Hasp key driver installation. There is an issue with the Aladdin driver installation program and this procedure must be completed so dongle key can be recognized. This procedure supercedes any previous instructions for Hasp driver installation where the 'Add New Hardware' wizard appears. This issue will be resolved upon receiving a solution from Aladdin. This pertains to LinkTenn32 v1.27.50 and later.

3.2 Release 1.29

Release 1.29.53

Same as Release 1.29.50.

Release 1.29.52

Same as Release 1.29.50.

Release 1.29.51

Same as Release 1.29.50.

Release 1.29.50

Aladdin Hasp Key Driver Issue.

After application installation completes and the Hasp key is inserted, the 'Add New Hardware wizard' may appear; this happens only on Windows XP with SP2 installed, the procedure outlined in Aladdin Hasp Key Driver Install Issue_D10122006 app note should be followed to complete Hasp key driver installation. There is an issue with the Aladdin driver installation program and this procedure must be completed so dongle key can be recognized. This procedure supercedes any previous instructions for Hasp driver installation where the 'Add New Hardware' wizard appears. This issue will be resolved upon receiving a solution from Aladdin. This pertains to LinkTenn32 v1.27.50 and later.

3.3 Release 1.28

None this release.

3.4 Release 1.27

When installing application on a Windows XP machine with SP2, the Hasp Key is not recognized, even when 1.26.29 is installed.

Work Around:

Release build 1.27.51 and later solves this by installing updated hasp key drivers based on the Windows OS platform. This ensures that the proper drivers are being installed for the OS in use.

3.5 Release 1.26

When installing application on a Windows XP machine with SP2, the Hasp Key is not recognized.

Work Around:

Release build 1.26.29 and later solves this by installing updated drivers for Windows XP with SP2 for the Hasp key. This issue pertains to releases prior to 1.26.29.

3.6 Release 1.25

None this release.

3.7 Release 1.24

None this release.

3.8 Release 1.23

LinkTenn32 may experience problems running properly on Microsoft Windows™ XP operating system, after an error free installation.

Work Around:

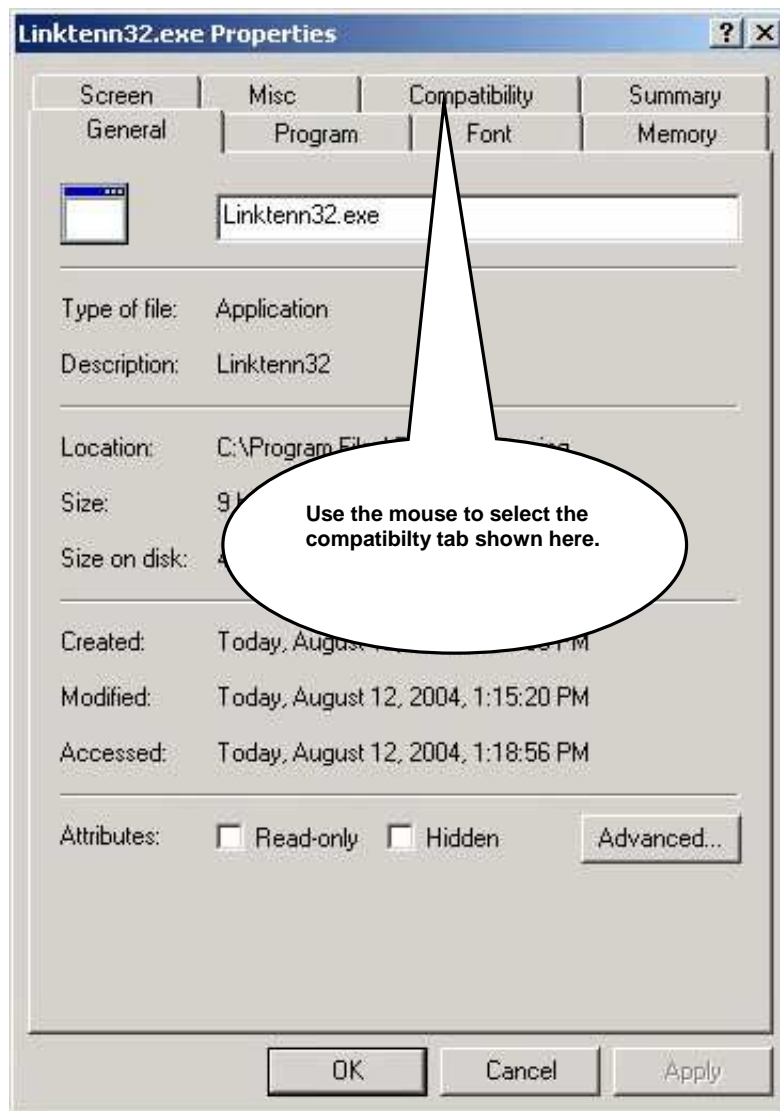
Some applications designed for the older versions of Microsoft Windows™ operating systems may experience compatibility issues with Microsoft Windows™ XP operating system. Microsoft Windows™ XP has a compatibility mode feature that emulates the older application's operating system environment and allows the application to work properly. Please see Microsoft Knowledge Base articles 292533 and 301911 for more information.

To set LinkTenn32's compatibility mode in Microsoft Windows™ XP, close LinkTenn32 application completely, and then use Microsoft Explorer to navigate to the installation folder of LinkTenn32. Using the mouse, right click the LinkTenn32 executable file (LinkTenn32.exe) and a shortcut menu will popup like the one shown below.



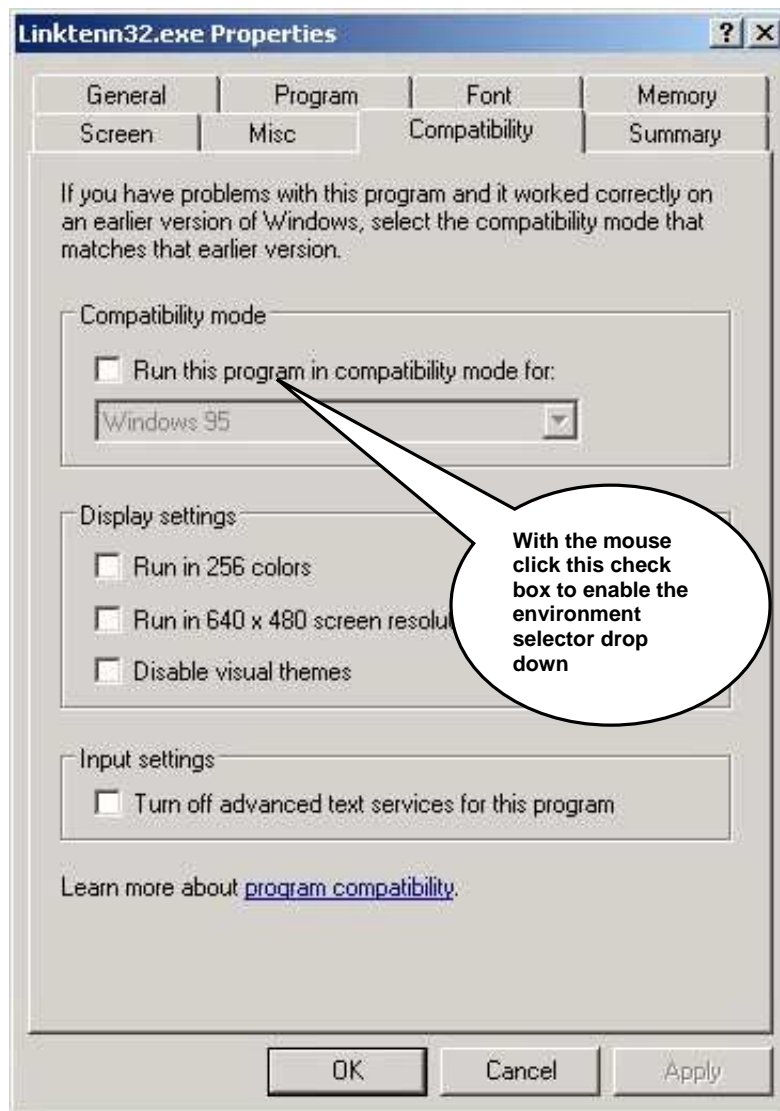
With the mouse left click the properties item as shown above and the LinkTenn32's properties dialog will appear and will look similar to that shown in next frame.

The dialog has several tabs shown for various other features that can be adjusted.



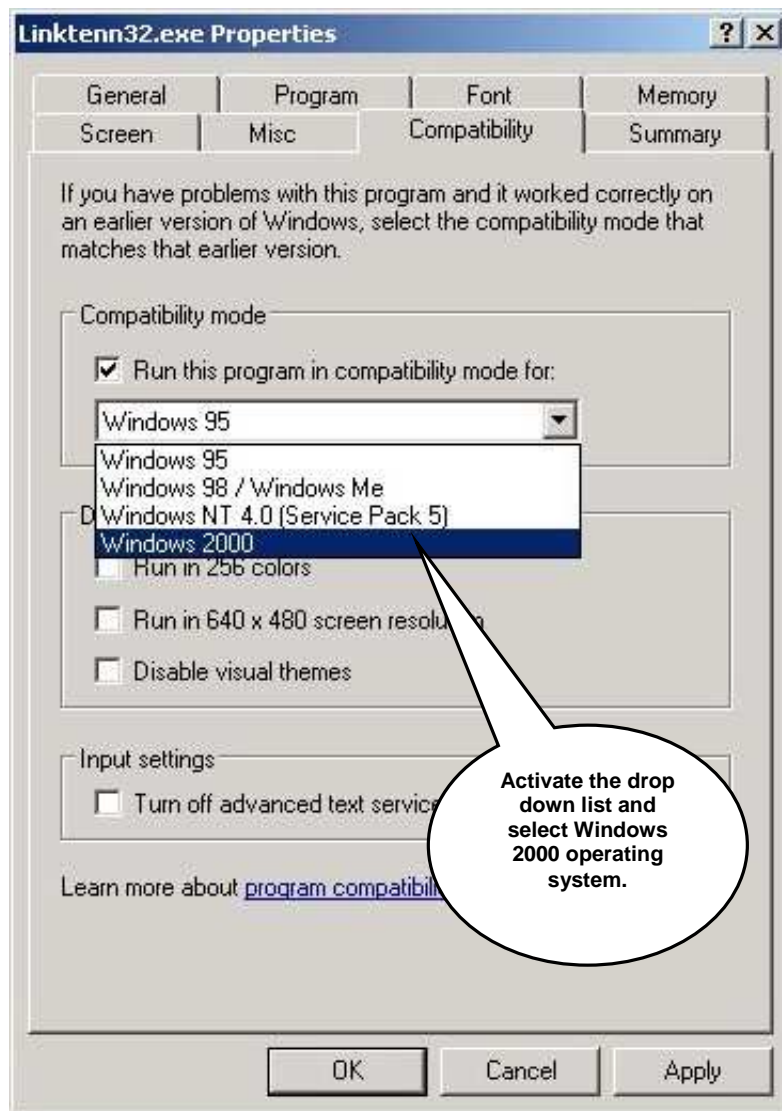
With the mouse left click the 'Compatibility' tab as indicated above and the dialog will look similar to that shown in the next frame.

The dialog now displays the settings that can be adjusted for the LinkTenn32 executable. The compatibility mode feature can be set here.



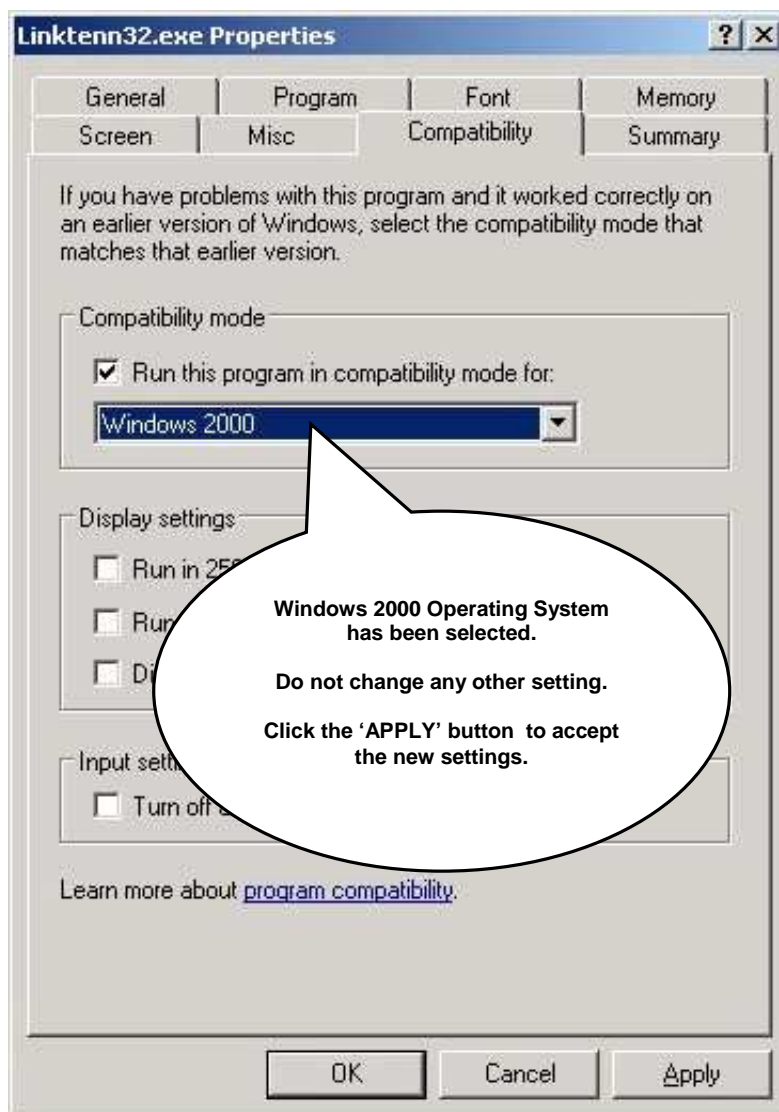
First click the 'Run this program in compatibility mode for' check box to enable the drop down list as shown in next frame.

The dialog displays the operating system choices available for mode compatibility.



With the mouse activate the drop down list and select Windows 2000. The dialog will look similar to that shown in next frame.

The dialog now shows that LinkTenn32's executable will run in a Windows 2000 emulated environment. The dialog displays the new setting and should look similar to that below. Do not change any of the other settings. Click the 'APPLY' button to accept the changes.



LinkTenn32 will now run in Windows 2000 compatibility mode when application is started.

LinkTenn32 does not recognize the USB dongle key and now runs in 'Monitor Only Mode'.

Work Around:

Microsoft Windows™ may have assigned the wrong software driver to the USB dongle key. Inserting the USB dongle key BEFORE LinkTenn32 was installed could have caused this improper assignment. LinkTenn32 has to be properly installed first. This ensures that Microsoft Windows™ OS assigns the proper installed driver to USB dongle key.

To correct the problem please do the following:

1. Shutdown the LinkTenn32 application.
2. From Device Manager, choose to uninstall the USB dongle Key entry (it may be under Other Devices, or USB Controllers and may be named "Aladdin USB Key", "HASP4 ...", or "HASP ...").
3. Remove the USB Key from the machine (PC).
4. Shutdown or reboot PC.
5. Reinsert USB Dongle key after reboot.
6. Start LinkTenn32 application.
7. LinkTenn32 should now recognize the USB dongle key and run in normal mode.

4. Releases prior to 1.23

4.1 Revision History

This section describes any new features incorporated into LinkTenn32 since first release.

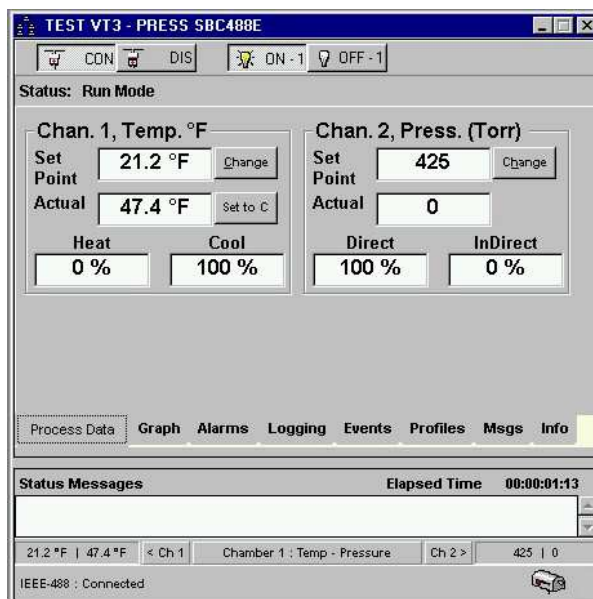
4.1.1 Release 1.22

This was an interim build, no major changes.

4.1.2 Release 1.21

Interim release to test VT3 Temp / Pressure mode configuration.

LinkTenn32 now supports the Temp / Pressure mode configuration for VT3 controllers. There is one known issue with this configuration which will be resolved next build. The profile download display may show incorrect channel values. To workaround this just multiply values shown by 10, where applicable for this release. These values are for display only, the proper values are sent to the controller. Below is a graphic of a VT3 in Temp / Pressure mode.



All other functions work the same as previous version of Linktenn32 except changes noted here. For this configuration to work properly the VT3 controller must be properly configured for Temp / Pressure mode. Please see VT3 User manual or Tenny personnel for assistance. Then using Linktenn32 follow the normal steps for creating ports and chambers as shown in Users Manual for a VT3 controller. Make sure to select the Temp / Pressure mode when defining the VT3 chamber.

UUT Log data now included with process Log data

For VT5 controllers with UUT units the Log data is now exported into one csv file instead of separate files. The sensor data appears in separate columns after the normal process variable data selections. The convention for the sensor field names is as follows: S11, S12, S13, etc. Where "S" stands for sensor, the tens digit represents the UUT number, and the ones digit represents actual sensor. So sensor field column S11 means sensor one on UUT unit 1, and sensor field column S35 means sensor five on UUT unit 3.

The chamber menu has been moved.

The LinkTenn32 chamber setup menu has been moved from the FILE menu to the CHAMBERS menu. All chamber functions are the same only the menu has been moved to facilitate usability. Please see graphic below.

**The profile editor can be accessed from main menu.**

The Profile editor can be started in 'Monitor Mode' and from the main menu. All functions are the same except that no profile download can occur. A chamber window is needed for that. Please see graphic below.

**The LinkTenn32 User Manual is now installed with application.**

The latest LinkTenn32 user manual is now installed automatically with application. There is no need to copy the manual to the installation folder after installing only when updating the manual with a new version which when available can be found on the website.

4.1.3 Release 1.20

Added new software installation procedure with Installshield Express 5.0

Using Installshield Express 5.0 allows automation of some the installation tasks while keeping to Microsoft Windows™ conventions. It is no longer necessary for user to install DCOM95 or DCOM98; these tasks are done automatically by setup program.

Added Software Registration and protection via Dongle key

LinkTenn32 now incorporates software registration and protection by the use of an external Dongle key. See ['External Hardware Dongle Key'](#) for more information.

New About Display for Serial number and Dongle key port

The External Hardware Dongle provides an unique serial number to be used for software registration and support issues. Please see sections ['LinkTenn32 Monitor Only'](#) and ['LinkTenn32 Normal Mode'](#) for more information.

New Help page for User manual installation

LinkTenn32 displays this manual from its Help menu via Acrobat reader. If this manual is not installed properly then this new help page appears with instructions on how to install PDF file and where to get a copy. Please see ['View User Manual Menu Item'](#) for screen and details.

Importing of VT5 profiles into LinkTenn32 via 3.5 floppy Disk

The profile editor can now import profiles from a VT5 controller via a 3.5 floppy disk for editing and download through LinkTenn32. See ['Profile Editor'](#) for more information.

Enhanced UUT data display for VT5 Chamber Window

The VersaTenn 5 UUT Data Display has been enhanced to show sensor numbers along with status of sensor measurements (see ['VersaTenn 5 UUT Data Logging'](#)).

4.1.4 Release 1.19

Added support for VT5 Logging UUT data

Added Logging and Exporting of external UUT data for VT5 controller. This feature was a quick add in and will be enhanced in a future version.

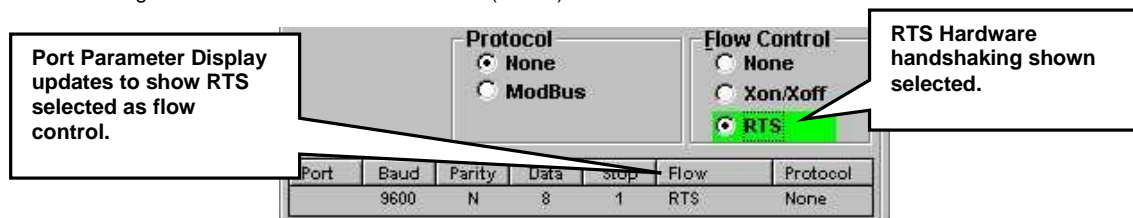
4.1.5 Release 1.18

New Controller Support

Added communications support for Thermontron 4800 via RS232 with RTS handshaking.

Addition of RTS hardware handshaking for Thermontron T4800 controller.

As part of the controller support for Thermontron 4800, RTS hardware handshaking was added to the 'Define A Port' dialog screen as shown below. RTS hardware handshaking is found under the 'Flow Control' section of the port parameter selection page and is selected during the port definition phase of defining a chamber for a Thermontron 4800 (T4800).



Modification to Versatenn 3 Chamber Window to better reflect physical controller.

The ON-2 and OFF-2 now only appear when the controller mode is set Temp / Temp. For Temp / Humidity only ON-1 and OFF-1 appear as shown below. This is representative of the physical controller.



Enhanced Event Tab display for Chamber windows

The Event tab for all chambers has been enhanced to include the controller ranges for each controller type. Depending on mode and controller type, these ranges can be adjusted. See ['Chamber Windows for Supported Controllers'](#) for details.

4.1.6 Release 1.0.17.30

New Log File Format

Added 'LogID' field to provide a running row count to aid in data graphing. The 'LogID' field is incremented by 1 each time a new record is added to the log file by the individual chamber window.

Added a separate 'Date' and 'Time' field in addition to the 'LogTime' field for ease of creating graphs on a daily basis using the autofilter feature of excel.

Added 'TempMode' field to indicate whether temperature measurements are in Celsius (True) or Fahrenheit(False).

New Controller Support

Added communications support for WF4 (Watlow F4) and W942 (Watlow 942) controllers utilizing GPIB.

Added profile control feature for VT5 controller using TCP/IP communications only.

New Alarms Setup Saving

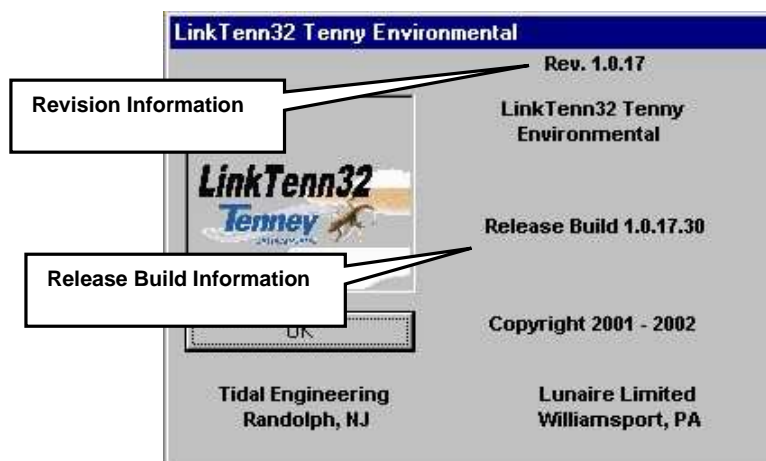
LinkTenn32 now saves 'Alarms' tab setup information between chamber window sessions. Temperature values are adjusted automatically based on chamber temperature mode of current session

New Monitor Only Version

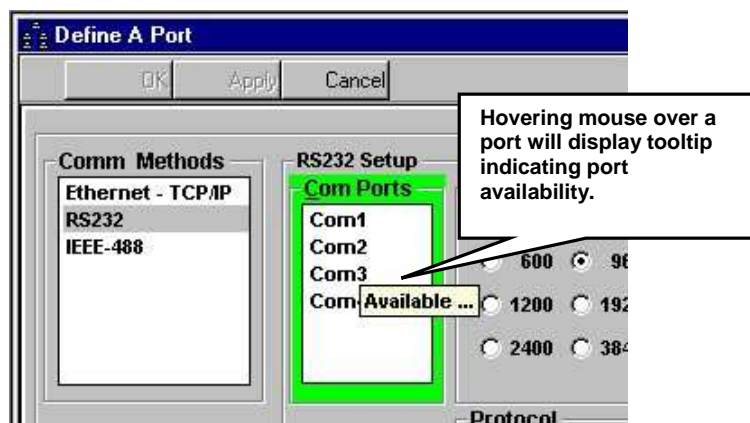
LinkTenn32 is now available in a 'Monitor Only' version. The 'Monitor Only' version has control features disabled, see 'Feature List' section for details or contact Lunaire at www.Tenney.com or 570-326-1770 for more information.

New About Box Release Information

New build release information added to the 'About' box display.

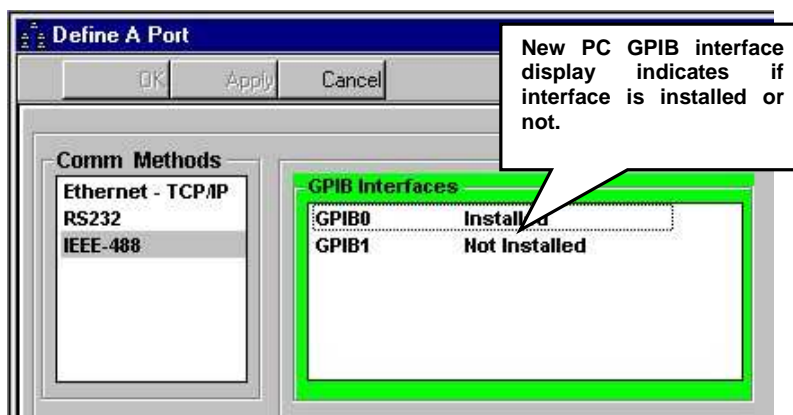
**Available Port Display**

Available com port display now displays all com ports installed in PC. Hovering the mouse over a particular port will display a tooltip which indicates if the com port is in use or available. See Graphic below.

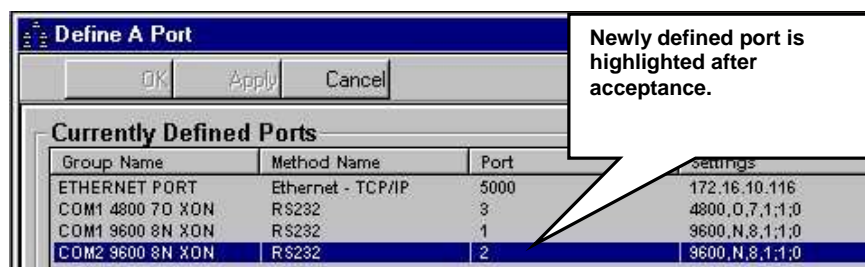


PC GPIB Interface Card Support

Due to GPIB software library constraints, LinkTenn32 is able to support only two PC GPIB interfaces. The available GPIB interface display has been modified to reflect this limitation. The display also indicates if a PC GPIB interface has been installed. LinkTenn32 will only recognize PC GPIB interfaces installed as GPIB0 or GPIB1. See graphic below.

**Updated Defined Port Display**

After defining a port and accepting port definition, the 'Currently Defined Ports' display now highlights newly defined port as shown below.



4.2 Bug Fixes

This section describes bug fixes incorporated for LinkTenn32 since first release.

4.2.1 Release 1.22

None this release.

4.2.2 Release 1.21

None this release.

4.2.3 Release 1.20

The Alert System generates a Subscript out of range error.

The Alert System during transmission of emails generates a subscript out of bounds error. A new version of the Alert System was added to fixed problem.

4.2.4 Release 1.19

Various internal enhancements to improve proformance and usability.

Internal software changes to enhance performance and usability.

4.2.5 Release 1.18

There are no error checking routines for checking out of range values when downloading profiles.

Added communication support to load controller range limits into LinkTenn32. These limits are used in the profile compile process to verify set points and actual values before profile download to controller. This action verifies that set points and or actual values are within controller limits, if not an error is generated and profile is not compiled until a correction is made.

The profile editor graph display does not always generate an accurate graph when the graph feature button is pressed.

Corrected several profile graph bugs resulting in accurate graphing.

LinkTenn32 Chamber Window Graph Display (Addendum)

Fixed bug where resetting the chamber window graph display via popup menu and selecting 72 hour mode would crash LinkTenn32. LinkTenn32 now displays an error message and continues to work properly.

Addendum for 1.18

Corrected error being generated by invalid array index.

Corrected range settings on graph control that was causing the graph to reset.

LinkTenn32 would get an occasional run-time error 91, 'Object variable or With block variable not set'

Fixed bug by restructuring database access to remove a concurrency problem.

4.2.6 Release 1.0.17.30**Profile Editor Temperature Conversion**

Fixed bug in Profile Editor converting between Celsius and Fahrenheit temperatures modes while editing a profile.

LinkTenn32 Chamber Window Graph Display

Fixed bug where resetting the chamber window graph display via popup menu and selecting 72 hour mode would crash LinkTenn32. LinkTenn32 now displays an error message and continues to work properly.

LinkTenn32 does not allow Negative Temperature in profile conversion

Fixed bug in LinkTenn32 where negative temperatures were not allowed for controller profiles.

LinkTenn32 now resets profile control buttons when a profile finishes.

Fixed bug in LinkTenn32 profile control for all supported controllers. There is no need to press the 'Hold' button to reset profile control button.

Profiles may deviate by a tenth of a degree when downloaded from the LinkTenn32 to a chamber due to internal temperature conversions.

Fixed bug in LinkTenn32 profile compile section and conversion error in profile editor. LinkTenn32 now handles Temperature conversions based on current chamber window Temp Mode setting and limits to 1 decimal place.

VersaTenn 3 chamber definitions for temp/temp chambers are erroneously mapped as a temp hum.

Fixed bug in LinkTenn32 chamber definition code to correct chamber mode designations.

4.3 Known Issues

This section describes the known issues and work arounds for each release of LinkTenn32.

When installing LinkTenn32 on Microsoft Windows™ XP, there is an issue with a missing .dll file, however, when the installation continues LinkTenn32 works anyway.

Work Around: The Microsoft Windows™ XP operating system isn't officially supported at this time though some installations have tried and were successful, albeit with the installation issue explained above. The installation issue concerning the DLL occurs every time on every installation tried. The "supported" operating systems are:

Microsoft Windows™ 95, with DCOM95 installed.
 Microsoft Windows™ 98, with DCOM98 installed.
 Microsoft Windows™ 98 Special Edition
 Microsoft Windows™ NT 4.0 Service Pack 6a
 Microsoft Windows™ 2000 Service Pack 2

4.3.1 Release 1.22

None this release.

4.3.2 Release 1.21

None this release.

4.3.3 Release 1.20

None this release.

4.3.4 Release 1.19

When downloading a profile to a VT4 just after a previous download depending on the number of steps the profiles have, there is a chance of overlapping causing a jump step to be set as the next step after the last step of downloaded profile. When the profile is ran, the VT4 does not stop at the last step but continues to jump step and executes the number jump indicated therein.

Work Around: **Before running a newly downloaded profile check the next step after the last step of profile and remove any jump step found.**

4.3.5 Release 1.18

For the Thermotron 4800 controller use only 300 baud for RS232 communications. Any other rate will cause the Thermotron to lock up after some time has passed. At 300 Baud no lockup occurred during testing.

Work Around: **Use 300 baud for RS232 Communications.**

4.3.6 Release 1.0.17.30

The Help / View User Manual menu item does not correctly install on some systems.

Work Around:

If this feature does not work you may need to manually copy the User Manual pdf file from the \Support folder of the installation CD to the LinkTenn32 application \Doc folder.

LinkTenn32 only provides VT5 profile control for Ethernet communications only.

Work Around: **None**

The profile editor graph display does not always generate an accurate graph when the graph feature button is pressed.

Work Around: **None, Fixed in 1.18**

The profile editor does not always adjust jump loop references when a step is deleted before the loop.

Work Around:

After deletion of profile step(s) all jump loops destination references must be manually checked for accuracy.

There are no error checking routines for checking out of range values when downloading profiles.

Work Around: **None, Fixed in 1.18**

1. Make sure all profiles have set point values that are in range for the target chamber before downloading them.
2. The Profile Editor can be used to check parameter limits while creating a profile and for existing profiles.

For new profiles set the set point ranges to match target chamber before adding any profile steps (see '[Step Limits](#)'). . The editor will verify the ranges upon addition of new steps (pressing the 'Apply' button). .

For existing profiles, load the profile into editor first, then set the set point ranges to match target chamber (see '[Step Limits](#)').

Save profile to a new name to preserve original profile.

Then for each step, change the set point(s) to another value then back to original value and press the 'Apply' button (see '[Set Point Step](#)'). The profile editor will verify the set point ranges for this step.

4.3.7 Release 1.0.16

LinkTenn32 does not allow negative Temperature values in profile conversion.

Work Around: **None. Fixed in 1.0.17**

4.3.8 Release 1.0.15

VersaTenn 3 chamber definitions for temp/temp chambers are erroneously mapped as a temp hum.

Work Around: **None. Fixed in 1.0.17**

If you download, start and run a profile from the LinkTenn32, and it runs to the end and stops, the only way to get out of the profile window is to press hold, which generates an error. This error will also occur if you download, start and run a profile from the LinkTenn32, then a user puts the chamber in Hold from the control panel. The error doesn't affect system stability.

Work Around: **None. Fixed in 1.0.17**

Profiles may deviate by a tenth of a degree when downloaded from the LinkTenn32 to a chamber due to internal temperature conversions. For example, if you create a profile with a setpoint of 42F and download it to a VersaTenn 5 in F it changes it to 42.1.

Work Around: **None. Fixed in 1.0.17**

If you press the enable logging button, you can't disable it until it reads and logs the first record. It will not read a record until the first logging interval has passed. For example, if you set a log interval of 1 minute and press the enable logging button, you will not be able to disable it for 1 minute.

Work Around:

To disable logging if a problem arises before the 'Disable Logging' button becomes available, just 'Dis' Connect the chamber window temporarily then "Con'nect back again. The logging process will be interrupted, and all logged data (if any) will be saved. After reconnection to chamber window logging can be resumed as neccessary.

GPIO communications to the VersaTenn 5 will generate occasional errors. The errors will not adversely affect the function of the chamber.

Work Around: **None**