



# Revision History

**PROCESS DATA**  
Displays setpoints and actual temperature and humidity data

**GRAPHS**  
Displays setpoint and actual temperature and humidity data on a line graph

**ALARMS**  
Sets and monitors process alarms such as maximum allowed temperatures

**LOGGING**  
Logs setpoint and actual temperature and humidity data and PID values to a text file

**EVENTS**  
Displays status of events, dipswitch settings and logical inputs

**PROFILES**  
Allows users to create and download test profiles to a chamber

**For Software Version: 2.13.01**

Revision: T, Date: 10/12/2008

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## **Synergy Manager Revision History**

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## 1. Revision History

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

### 1.1 Release 2.13

#### Release 2.13.01

Adds Microsoft Windows™ Vista Compatibility (32-bit only).

Microsoft Windows™ 95, Microsoft Windows™ 98, Microsoft Windows™ 98 Special Edition, and Microsoft Windows™ NT 4.0 are no longer supported due to no support by Microsoft.

### 1.2 Release 2.12

#### Release 2.12.21

No new features added this release.

#### Release 2.12.20

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 2.12.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.

### 1.3 Release 2.11

#### Release 2.11.53

No new features added this release.

#### Release 2.11.52

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

#### Release 2.11.51

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

#### Release 2.11.50

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 Acquisition System, visit Tidal Engineering's Website at [www.tidaleng.com](http://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.

## 1.4 Release 2.10

### Revision 2.10.82

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".

### Revision 2.10.81

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.

### Revision 2.10.80

Revised Synergy Manager 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 (2.10.80).

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

**1.5 Release 2.09**

Adds new controller support for Yokogawa 550/750.

**1.6 Release 2.08**

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 2.08.29 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. Synergy Manager 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. Synergy Manager 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.

**1.7 Release 2.07****Release 2.07.07**

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

**Release 2.07.06**

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 2.07.05**

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. Synergy Manager 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.

**1.8 Release 2.06**

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

**1.9 Release 2.05**

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



## 2. Bug Fixes

This section describes bug fixes incorporated for Synergy Manager since first release.

### 2.1 Release 2.13

Release 2.13.01  
None this release.

### 2.2 Release 2.12

Release 2.12.21  
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 2.12.20  
None this release.

Release 2.12.Beta  
None this release.

### 2.3 Release 2.11

Release 2.11.53  
Fixes a channel two scaling display problem introduced when adding the Temperature Pressure configuration for VersaTenn 5 /Synergy Controller /Compatibles (VT5).

Release 2.11.52  
Fixes an intermittent 90103 (No response from controller) error when a Watlow F4S single channel controller is used with a Synergy488 module.

Release 2.11.51  
None this Release.

Release 2.11.50  
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.

## 2.4 Release 2.10

### Release 2.10.82

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 2.10.81

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 2.10.80

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.

**2.5 Release 2.09**

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 Synergy Manager 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.

**2.6 Release 2.08**

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, Synergy Manager 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. Synergy Manager 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, Synergy Manager will reset its profile control buttons. This has been corrected this release. Synergy Manager 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. Synergy Manager now displays the proper chamber status messages based on current chamber state.

**2.7 Release 2.07**

None this release.

**2.8 Release 2.06**

None this release.

**2.9 Release 2.05**

None this release.

### 3. Known Issues

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

#### 3.1 Release 2.13

Release 2.13.01

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 Synergy Manager v2.09.50 and later.

#### 3.2 Release 2.12

Release 2.12.21

Same as Release 2.12.Beta

Release 2.12.20

Same as Release 2.12.Beta

Release 2.12.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 Synergy Manager v2.09.50 and later.

#### 3.3 Release 2.11

Release 2.11.53

Same as Release 2.11.50.

Release 2.11.52

Same as Release 2.11.50.

Release 2.11.51

Same as Release 2.11.50.

Release 2.11.50

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 Synergy Manager v2.09.50 and later.

#### 3.4 Release 2.10

None this release.

#### 3.5 Release 2.09

When installing application on a Windows XP machine with SP2, the Hasp Key is not recognized, even when 2.08.29 is installed.

Work Around:

Release build 2.09.51 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.

### 3.6 Release 2.08

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

Work Around:

Release build 2.08.29 and later solves this by installing updated drivers for Windows XP with SP2 for the Hasp key. This issue pertains to releases prior to 2.08.29.

### 3.7 Release 2.07

None this release.

### 3.8 Release 2.06

None this release.

### 3.9 Release 2.05

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

Work Around:

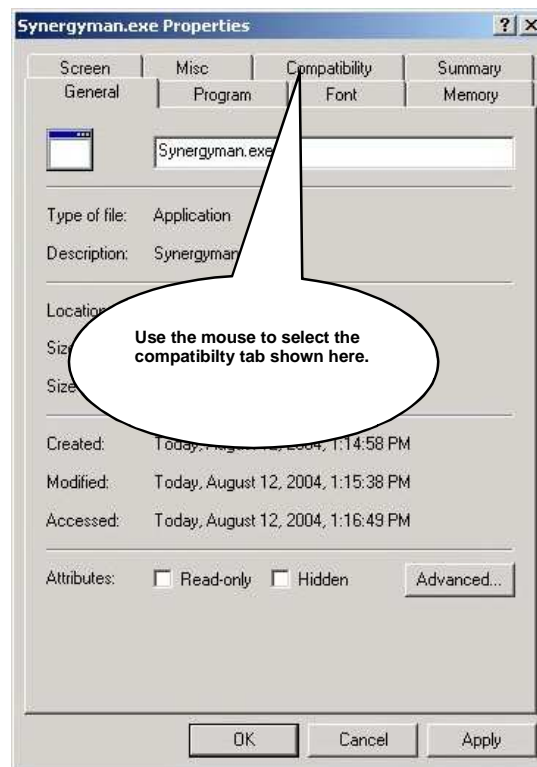
Some applications designed for the older versions of Microsoft Windows™ operating systems may experience compatibility issues with Microsoft Windows™ XP operating system. Microsoft Windows™ XP has a compatibility mode feature that emulates the older application's operating system environment and allows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

To set Synergy Manager's compatibility mode in Microsoft Windows™ XP, close Synergy Manager application completely, then use Microsoft Explorer to navigate to the installation folder of Synergy Manager. Using the mouse, right click the Synergy Manager executable file (SynergyMan.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 Synergy Manager'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.



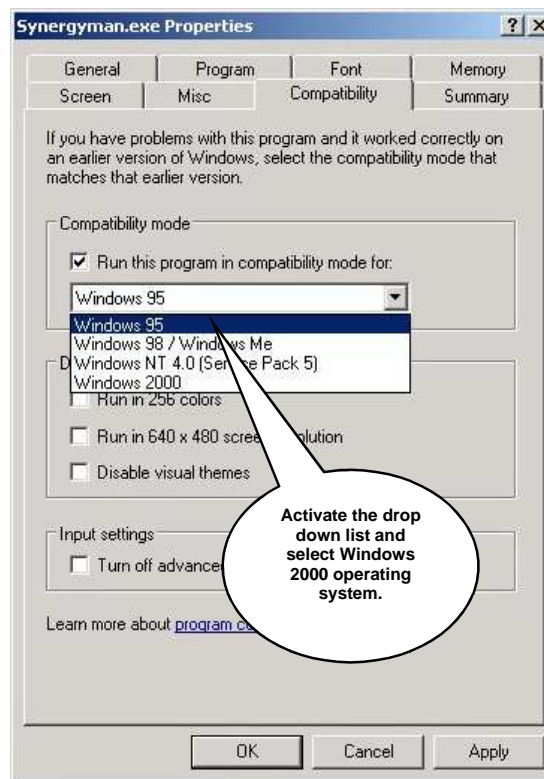
With the mouse left click the 'Compatibility' tab as indicated above and the dialog will look similar to that shown in the next frame.

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



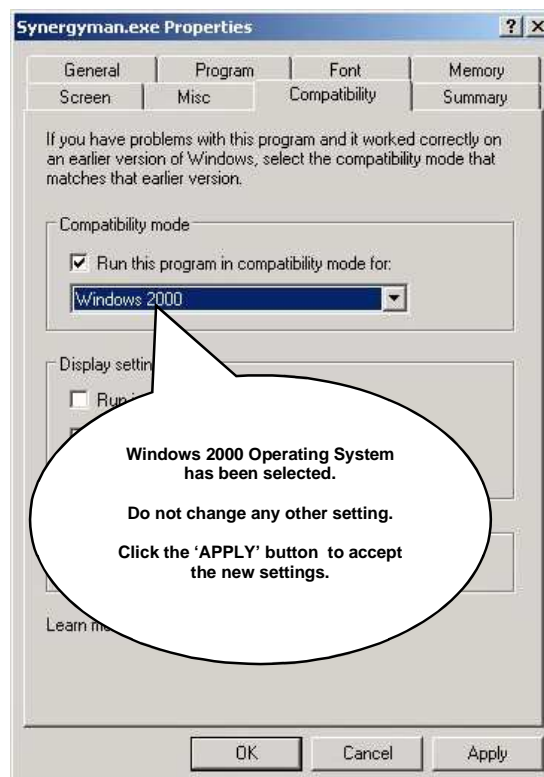
First click the 'Run this program in compatibility mode for' check box to enable the drop down list as shown in next frame.

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 Synergy Manager'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.



Synergy Manager will now run in Windows 2000 compatibility mode.

**Synergy Manager 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 Synergy Manager was installed could have caused this improper assignment. Synergy Manager 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 Synergy Manager 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 Synergy Manager application.
7. Synergy Manager should now recognize the USB dongle key and run in normal mode.

**When installing Synergy Manager on Microsoft Windows™ XP, there is an issue with a missing .dll file, however, when the installation continues Synergy Manager 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

**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.

**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.

**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 Synergy Manager application \Doc folder.

**Synergy Manager only provides VT5 profile control for Ethernet communications only.**

Work Around: **None.**

**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.