APEX v3.4

Release Notes

Date: August 2018

Contents

RELEASE OVERVIEW

APEX v3.4 supports the TASC Summit gateway as a monitoring device.

INSTALLING APEX

New Installation

Use the APEX User Manual R04, specifically *Chapter 3: Software Configuration* to install and configure this new version of APEX v3.4.

Upgrading an Existing Installation

Upon installation, Apex v3.4 will upgrade the database automatically to support the new Site Mapping feature. Once completed the Apex v3.4 database is backward incompatible, so **performing a System Archive (or manual database backup) before upgrading to Apex v3.4 is highly recommended**.

To install the new version, first uninstall the APEX components from Control Panel's Programs and Features. The uninstall process will retain the configuration information associated with your application – this database of information will be utilized by this new release of APEX v3.4.

Once these components are uninstalled, use the APEX User Manual R04, specifically *Chapter 3.1: Installing the System* to install this new version of APEX v3.4.

Name ^	Date modified	Type	Size
APEXAlarmManager	8/27/2018 11:11 AM	File folder	
APEXClient	8/27/2018 11:11 AM	File folder	
APEXDataManager	8/27/2018 11:11 AM	File folder	
SNMPCommServer	8/27/2018 11:12 AM	File folder	
SummitCommServer	8/27/2018 11:11 AM	File folder	
TASCCommServer	8/27/2018 11:11 AM	File folder	

APEX Software Components

TASC S*UMMIT* G*ATEWAY* S*UPPORT*

Apex v3.4 now fully supports TASC's Summit remote monitoring gateway, including the following functionality:

- Real-time I/O updates and events

- Alarming and notifications

- Polling for historical logging

- Site mapping to allow control

Summit Communication Server

The Summit Communication Server manages the communication interface between the Apex system and Summit gateways.

While typically, one Summit Communication Server is used with Apex and usually installed on the same PC server as Apex, additional Summit Communication Servers may be deployed, each on a different PC, depending on the network and system architecture used for the overall Apex system deployment.

For installation and configuration information related to the Summit Communication Server, refer to *Chapter 3.1: Installing the System* and *Chapter 3.5: Configuring the Summit Communication Server*.

Adding a Summit to Apex

Upon installation, the Summit Communication Server will be included on the Apex Client's Sites window as the child element of the Network icon.
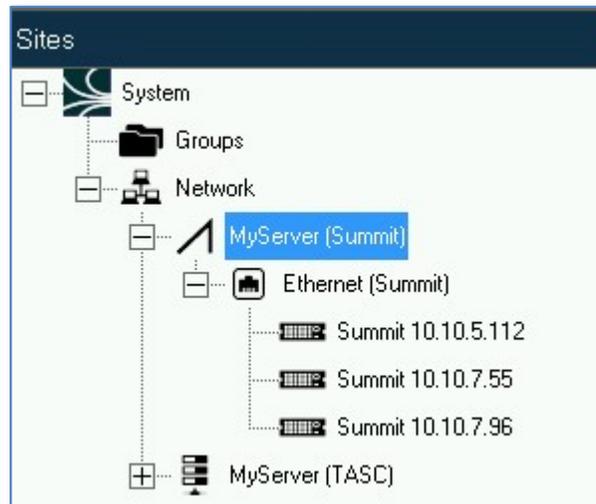
Summit Communication Server

To add a summit device, first right-click on the Summit Communication Server and add a Communication port (i.e., Ethernet), then right-click on the Communication port and add a Summit. Specify the name and IPv4 address to finish adding the Summit to the Apex system.

Viewing and Monitoring a Summit

Upon adding a Summit, Apex will automatically establish a communication link to the Summit, create a display panel and add all the I/O points as panel controls.

- If an I/O point is disabled on the Summit, the panel control will have its Visibility marked as false

- Apex will automatically change the panel control names to match the names of the I/O in Summit

All Summit I/O changes will be transmitted to Apex and corresponding Apex panel control values will be updated in near real-time.

- For digital input and digital output values, the updates are sent to Apex only after the hold time has been satisfied

- For analog input points, the updates are send to Apex only if the qualifier (if used) is valid and after the hold time has been satisfied

Summit digital outputs can be turned on or off from the Apex panel.

Apex can automatically detect and will attempt recovery from communication failures with the Summit gateway. Apex pings the Summit every 12.5 seconds to ensure connectivity. If there is no response, and after multiple reconnect attempts, the Summit will be show as Unavailable. Typically, failures are detected in 60 seconds.

Alarming and Notification of Summit Events

Summit exceptions can be alarmed and use Apex's built-in notification system to alert users. Use the following guide to set up Summit alarms:

Summit Alarm Type	Comments
Non-Responsive	An alarm will be triggered upon detection of the Summit being unavailable as the result of either: • Prolonged failed communication attempts due to network or other disruptions • IP cable failures • Failed or powered off Summit
Digital Inputs, Digital Outputs	An alarm will be triggered upon receipt of a Summit event matching the Apex alarm configuration value (On or Off). The Summit event will be sent only after the hold time (if used) is satisfied.
Analog Inputs	An alarm will be triggered upon receipt of a Summit threshold change event. While the Apex alarm configuration shows the low and high threshold (as read from the Summit), threshold crossings are evaluated on the Summit and are sent only if the qualified (if used) is valid and after the hold time is valid.

Use the standard Notification system for all Summit alarms.

Polling Summit I/O

Use the Apex polling system to log Summit I/O values to the historical log. Polling for Summit supports the following I/O types:

- AllContactInputs: all enabled 48 digital inputs are read and recorded in the historical log

- AllOutputs: all enabled 16 digital outputs are read and recorded in the historical log

- AllAnalogInputs: all enabled 32 analog inputs are read and recorded in the historical log

- All other types of polls are ignored

Historical Logging of Summit Data

The Apex History log captures the following Summit data:

- Alarm – all Summit alarms triggered as part of Apex's alarm functionality are logged

- Communication – if the LogTransactionExceptionsOnly property in the DataHandler.exe.config fiel is defined as FALSE, all successful and failed communication transactions are logged. If set to TRUE, only transaction exceptions (e.g., cancelled) are logged.

- I/O – all I/O changes and poll results are logged

Site Mapping for Summit I/O

The Apex Site Mapping functionality is available for Summit gateways:

Site Mapping Component	Description
Input Conditions	**For digital inputs and outputs:** condition is triggered upon receipt of a Summit event matching the Apex alarm configuration value (On or Off). The Summit event will be sent only after the hold time (if used) is satisfied.
	For analog inputs: condition is triggered upon receipt of a Summit threshold change event. While the Apex site mapping configuration shows the low and high threshold (as read from the Summit), threshold crossings are evaluated on the Summit and are sent only if the qualified (if used) is valid and after the hold time is valid.
Mapped Actions	**Digital Output Control:** upon an active input condition, the configured Summit digital output will be actuated per the site mapping action configuration.
	Run External Program: upon an active input condition, the configured external program is run as tasked.