Panacea
Technologies Inc.
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Panacea Update Manager: Decreasing Security Risks and Downtime in your Automation Infrastructure

Background

Patch deployment is an integral part of every Automation IT process. Patches can improve system performance, protect against cyber security threats, and correct problems in previously deployed system builds. However, managing patches for automation systems can be a time consuming and resource intensive process due to the effort required to research patch notes, verify vendor compatibility, deploy compatible patches, and test functionality.

The systems found in manufacturing environments feature combinations of a wide variety of automation platforms. As the size and quantity of these systems grow, the amount of time and resources required to manage deployment of newly released patches drastically increase. Complexity further increases on systems with multiple unique software packages, as the approved patches must be compatible with *every* vendor platform. As systems evolve towards hyper connected and distributed computer networks, patch management will continue to become more difficult and time consuming for engineering resources. Patch management efforts reduce the time available for engineering personnel to perform other tasks.

The Case for Automated Update Management

Vendor-qualified Microsoft updates and antivirus definitions can be automatically and regularly deployed to the designated control network (CN) nodes with an automated update management system. To solve the problems associated with manual update management Panacea has released the Panacea Update Manager. Panacea Update Manager automatically manages Microsoft update deployments and can optionally include Symantec Endpoint Protection Manager (SEPM) to provide end point node security. SEPM is supported by most major automation platforms, SCADA software packages, and data historization systems.

Panacea Update Manager was designed to remain automation vendor agnostic and can handle Microsoft updates for multiple vendors. The software can be configured for a wide variety of systems that use different combinations of automation software on the same node or across multiple nodes and will work across multiple automation networks.

Currently, Panacea Update Manager supports most major automation and historian platforms, and an up to date list can be found at https://panaceatech.com/Products/UpdateManager. Future releases will expand upon the supported vendors list based on market research and client feedback.

Software Functionality

Panacea Update Manager maintains a list of vendor-qualified updates for each client based on their Operating System and installed automation software. Vendor qualified updates are then approved and securely transmitted to the connected clients. The software ensures that only the vendor-qualified Microsoft updates are available to the designated clients on a pre-determined schedule.

Panacea Update Manager has two install types to support a variety of security preferences; one for systems connected to the Internet and one for systems that are on their own air gapped network and do not connect to the Internet. For online Panacea Update Manager installations the server connects to the Microsoft website via a secure connection to download the Microsoft updates and to the Panacea Secure Update Server to download the latest list of updates qualified by the various vendors. For offline Panacea Update Manager installations the server is not connected to the internet. Microsoft updates and the current list of vendor-qualified updates is provided by Panacea on a regular basis through an encrypted physical storage device.

Software Components

Panacea Update Manager Server

Panacea Update Manager Server is the core software that automates the process of gathering and approving vendor-qualified updates and providing them to the connected clients. The software provides a user interface where the user can manage and group clients according to their preference or standard.

The following figures demonstrate some aspects of the Panacea Update Manager user interface and core functionality.

Figure 1: Individual clients can be assigned to groups based on the area of the plant or their function. Status of all the clients in the selected group is provided.
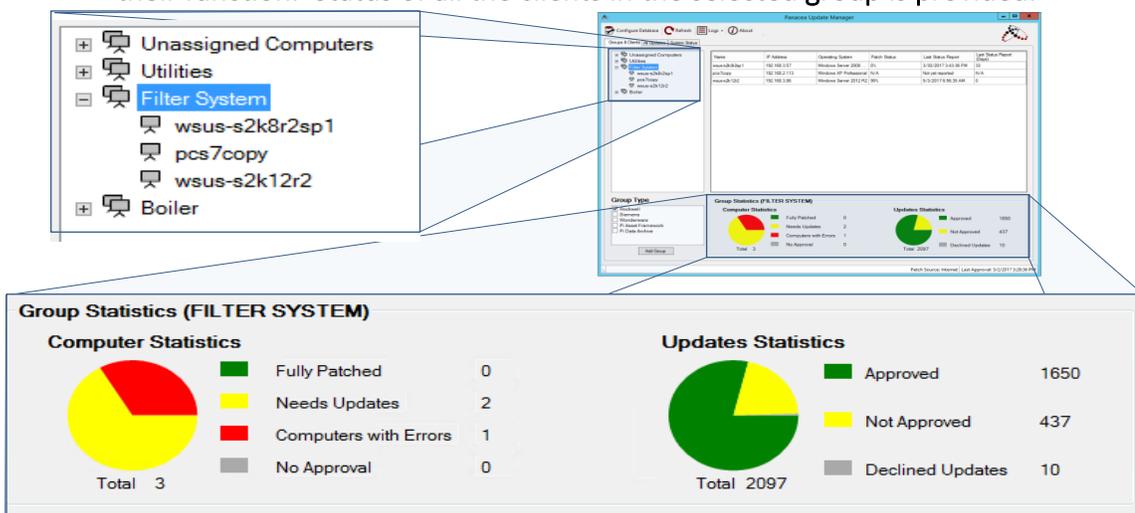
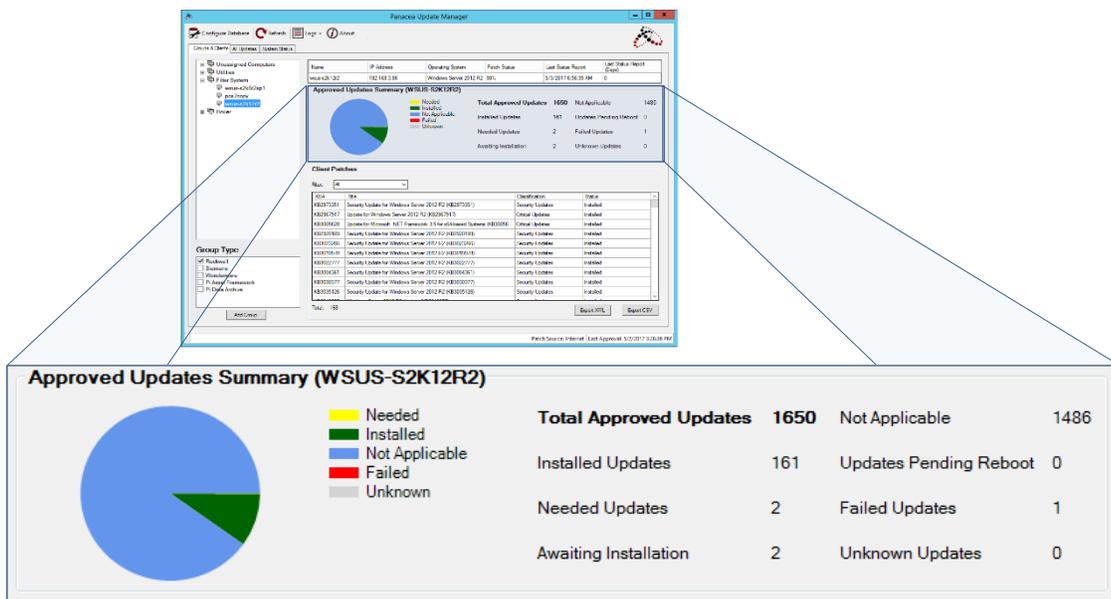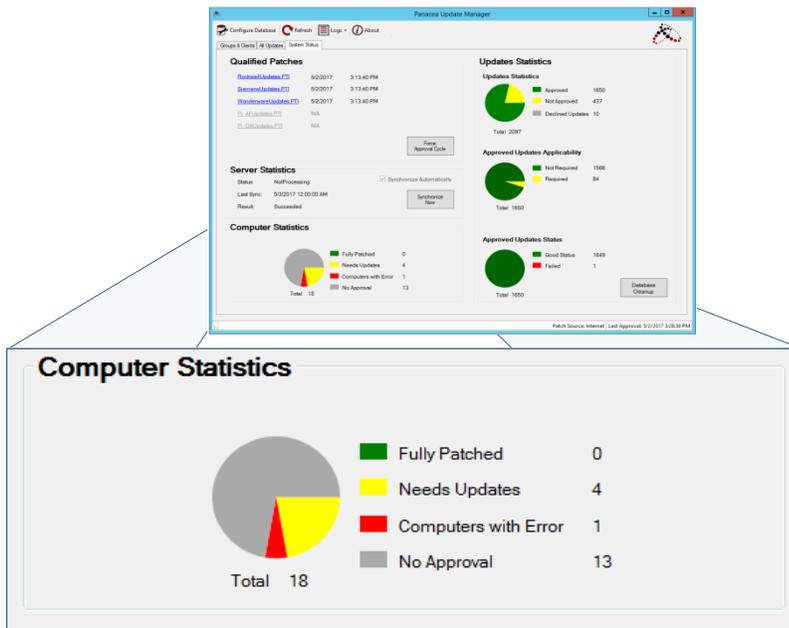Figure 2: Selecting a client shows its update status.

Approved Updates Summary (WSUS-S2K12R2)

Needed	Total Approved Updates	1650
Installed		
Not Applicable	Installed Updates	161
Failed	Needed Updates	2
Unknown	Awaiting Installation	2

Not Applicable	1486
Updates Pending Reboot	0
Failed Updates	1
Unknown Updates	0

Figure 3: Status of all computers in the system can be observed on the System Status screen.

Computer Statistics

Fully Patched	0
Needs Updates	4
Computers with Error	1
No Approval	13
Total	18

Documentation for Regulated Industries

Requirements and testing documents are available for review at Panacea Technologies Inc.

Ordering and Licensing

Licensing is based on an annual subscription and depends on the installed base of automation software and number of clients. The software may be purchased as a standalone product to be deployed and configured by an internal group, or as a turnkey solution that includes configuration and deployment. Annually audited site licenses and an option to purchase the Panacea Update Manager with the Symantec Endpoint Management Software (SEPM) subscription are also available.

About Panacea Technologies

Panacea Technologies Inc. is a Process Control and Automation solutions company headquartered in Montgomeryville, PA with an office in Irvine, CA as well as a soon to open location in Albany, NY. Panacea has been delivering cutting edge software solutions and services to our clients since 1996.

It is our mission at Panacea Technologies Inc. to provide our customers a competitive advantage by providing superior design, implementation, software, and management strategies to best leverage their automation and validation investments. Panacea Technologies' success is attributed to the confidence clients have in our technical know-how, diligence, and dependability.

Contact Panacea Technologies Inc. at (267) 421-5300 or at sales@panaceatech.com to order or request an invitation to the next web demo.