Instruction Manual
Automated Smart Updater
For R-Series, BB, WD, GU and EM Devices

Software Version 1.20

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Specifications and Requirements

Overview

The Geist Automated Smart Updater (ASU) is a software tool for simultaneously updating multiple Geist IP-enabled devices.

Supported Hardware

The Geist ASU supports the following devices:

- R-Series (formerly RacSense®) devices (Firmware versions 2, 3, 4 and 5)
- Current Monitoring (EM) Meter devices (Firmware versions 1 and 2)
- BB-Series devices and WD-Series devices
- Geist Upgradeable devices with IMD module

Notes:
- R-Series devices with Firmware version 2 **are not** upgradable to Firmware version 3.
- R-Series devices with Firmware version 3 **are not** upgradable to Firmware version 4.
- R-Series devices with Firmware version 4 **are** upgradable to Firmware version 5.
- Current Monitoring (EM) devices with Firmware version 1 **are** upgradable to Firmware version 2.

Requirements

Computer

The Geist ASU requires a computer with the following software installed, at a minimum:

- Microsoft Windows 7 or 10
- Microsoft .NET Framework 4

Network

The following network services will need to be open (not firewalled or disabled) on each device being upgraded

- HTTP
- ICMP
- FTP (R-Series v2 and EM v1 only)
- TFTP (EM v1 and v2)

Usage

Installation

The ASU requires no installation. Simply unzip the application into a directory that is easy to find (the desktop or C:\ are good locations). Once the ASU is unzipped, drop any firmware files you wish to use into the same directory as the application.

Note: figures included in this manual are screenshots taken from an earlier version of the Geist ASU and illustrate an older presentation style and older versions of firmware. As the only changes were internal changes made to support newer versions of firmware, these figures are still valid for the current version of ASU.

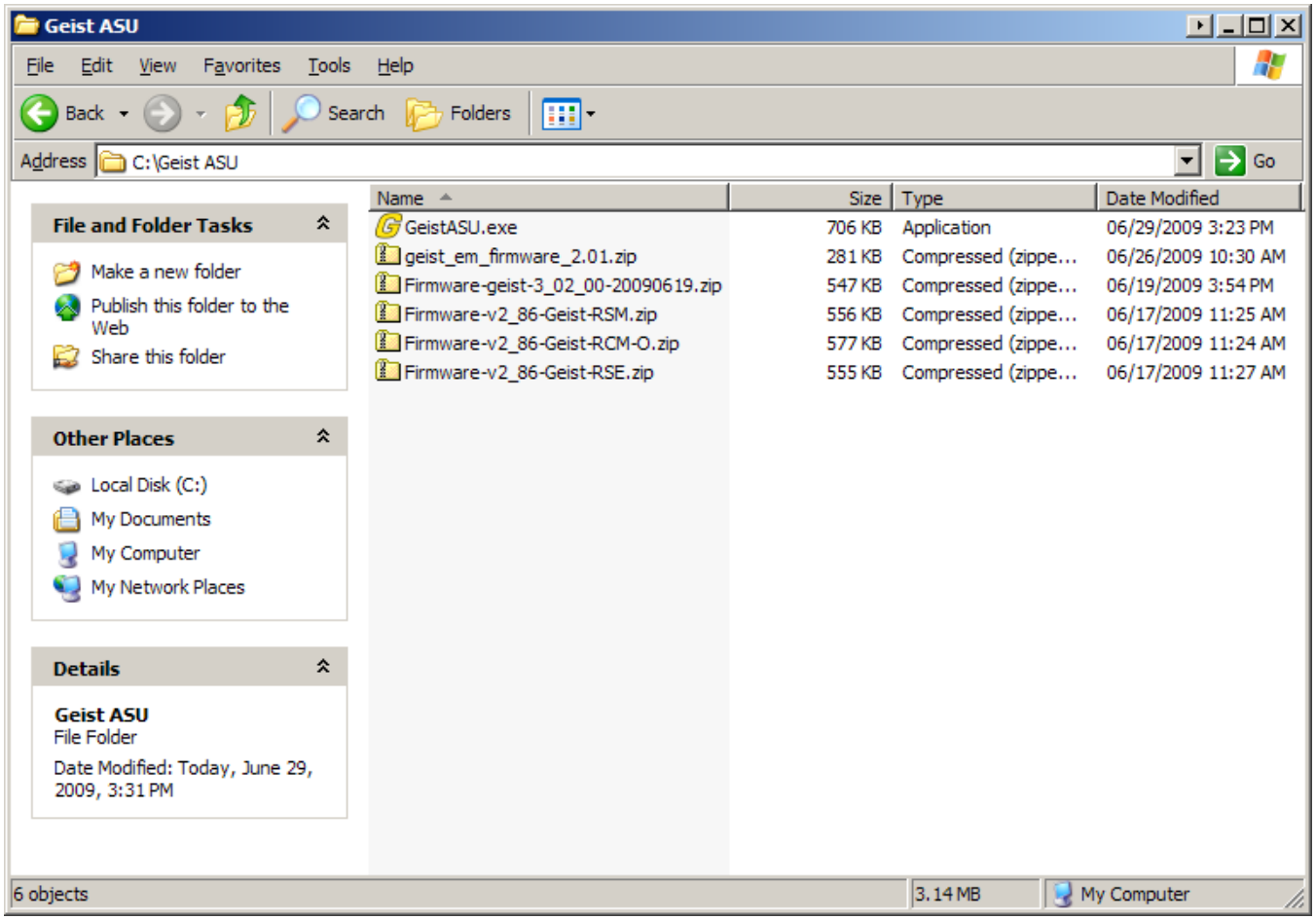

Figure 1: ASU with multiple firmware packages

Startup

On startup, the ASU will search for firmware in the application directory.

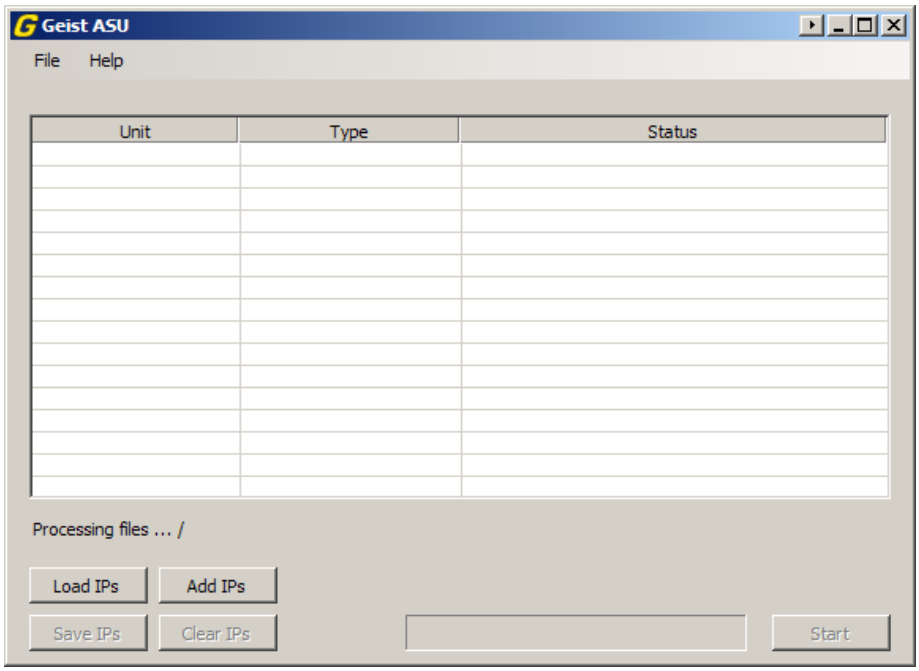

Figure 2: Processing firmware packages

Entering IP addresses

Once firmware processing is complete, the ASU is ready to accept the IP addresses of units needing upgrades. There are five ways to enter IP addresses:

(1) Load Text Files

The ASU can read IP addresses from plain text files. The files should have one IP address per line. Click "Load IPs" to load IPs from a text file.

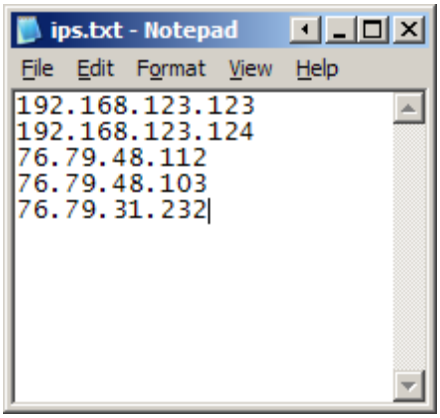

Figure 3: IP address text file

The ASU can also read a custom format that includes usernames and passwords for those units that have them. This is the format that the ASU uses when saving IP address lists. See Saving IP Address Lists (page 12).

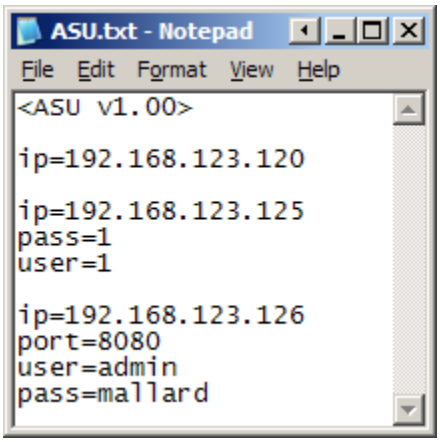

Figure 4: ASU IP address file

Click "Load IPs" to select text files to read IP addresses from. Multiple files may be selected.

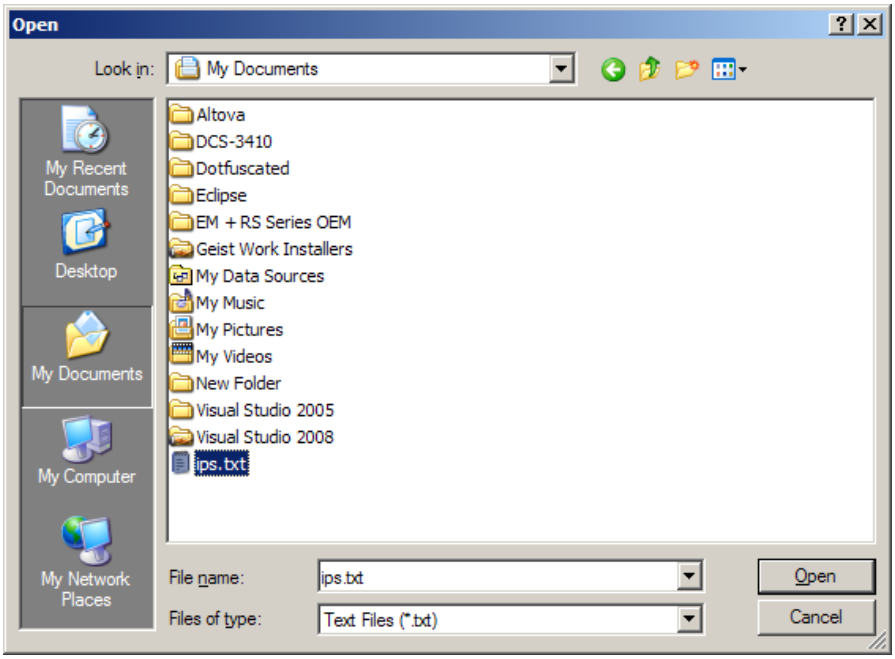

Figure 5: Selecting an IP address list file

The ASU will load the IP addresses out of each selected file and add them to the list of units to update.

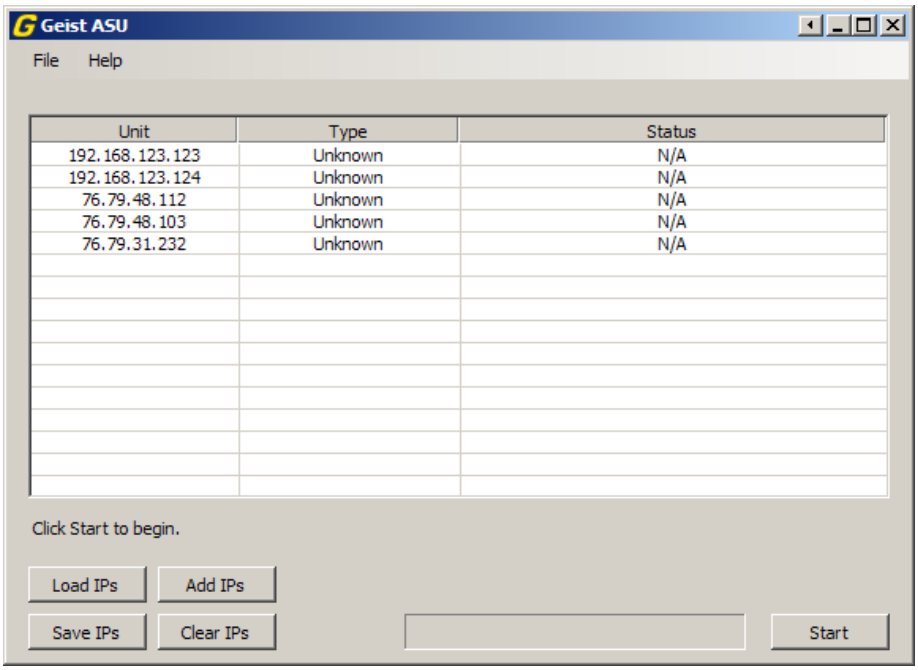

Figure 6: IP addresses loaded from text file

(2) Drag and Drop

Alternatively, the ASU supports dragging and dropping of multiple text files onto the main window.

(3) Single Entry

IP addresses may also be entered one at a time. Click "Add IPs" in the main window to open the IP Entry window. Credentials and alternate HTTP port, for units that need them, can be entered here.

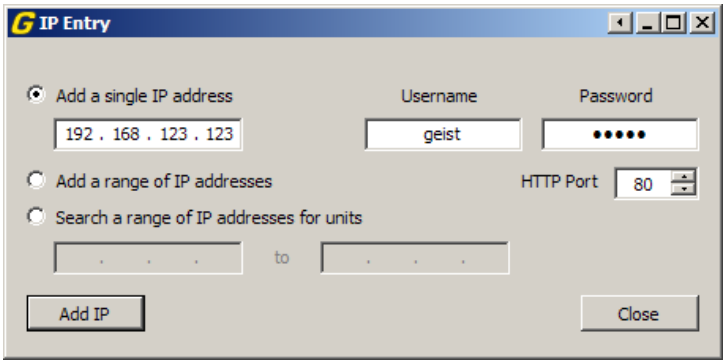

Figure 7: IP Entry window in Single Entry mode

Type in an IP address and click "Add IP" and it will be added to the list of units to update.

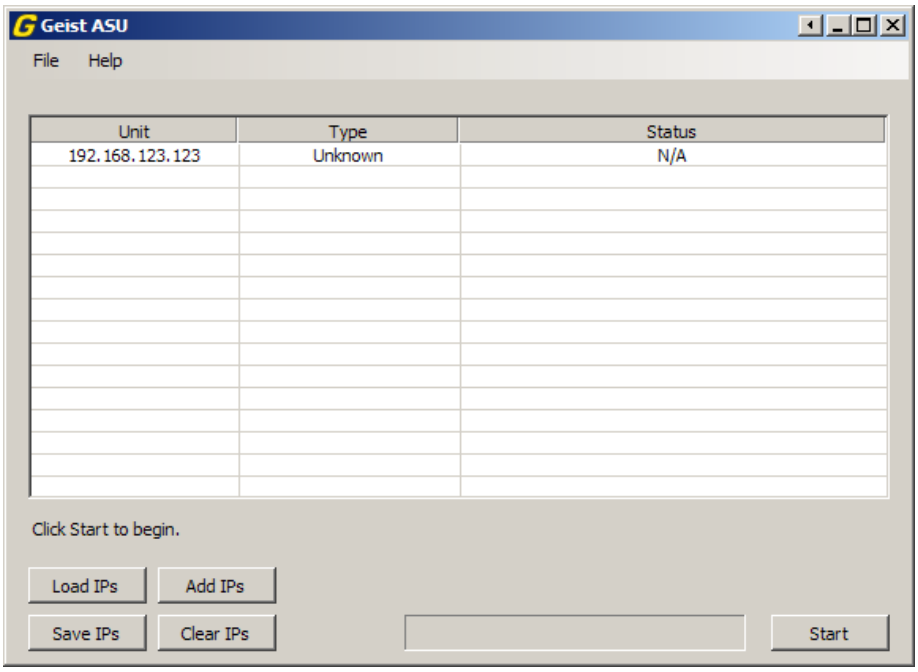

Figure 8: Main window with a single IP address to update

(4) Range Entry

IP addresses can also be added as ranges. Click "Add IPs" in the main window to open the IP Entry window. Select "Add a range of IP addresses" to switch to Range Entry mode. Credentials and alternate HTTP port, for units that need them, can be entered here.

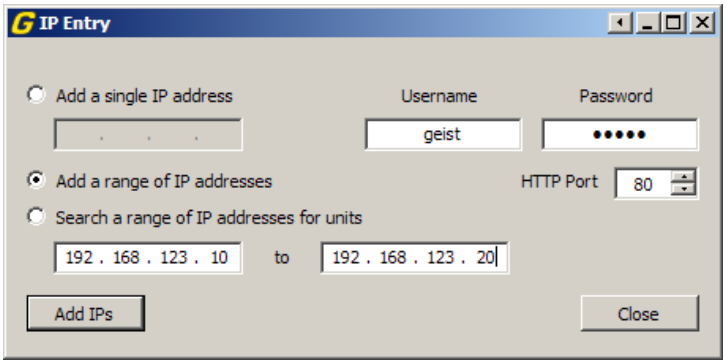

Figure 9: IP Entry window in Range Entry mode

Click "Add IPs" to add all of the IP addresses in the range entered to the list of units to update.

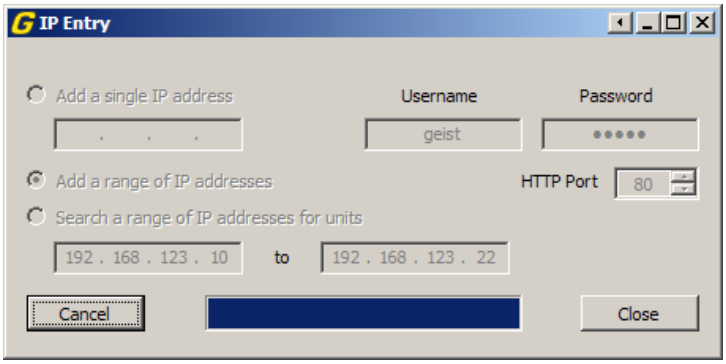

Figure 10: Processing an IP address range

When processing is complete, a message will appear indicating how many IP addresses were added. Duplicate entries will not be added.

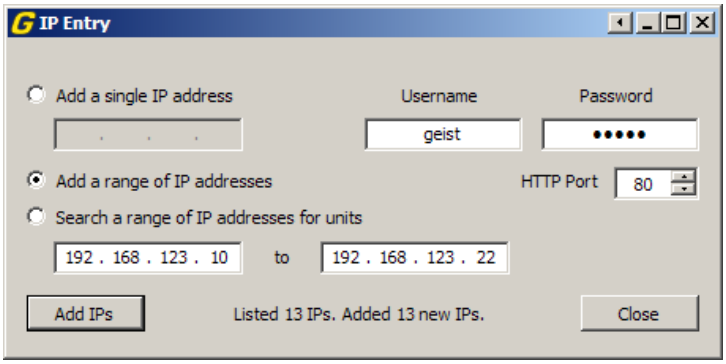

Figure 11: Finished processing an IP range

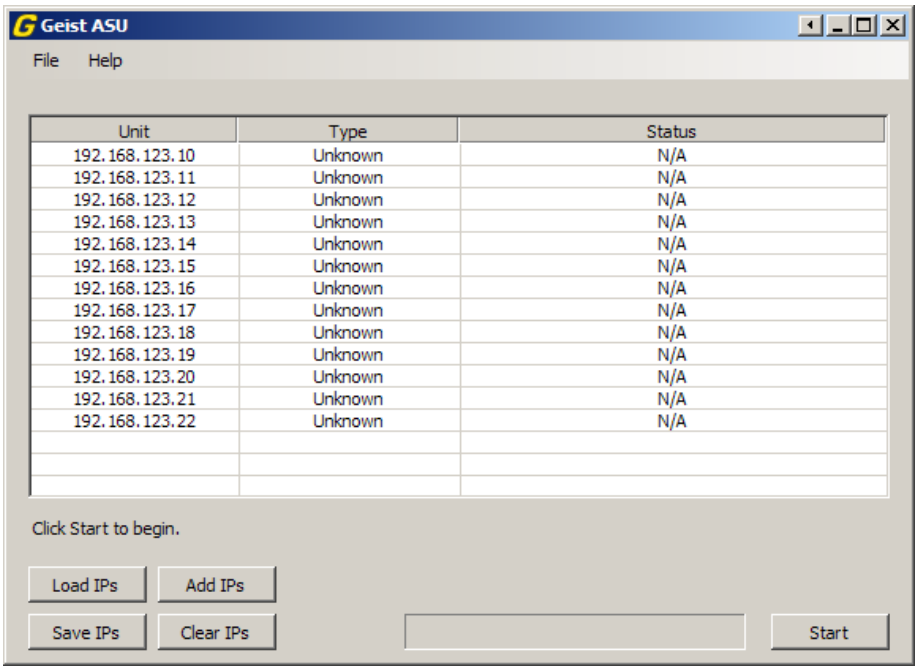

Figure 12: Main window with a range of IP addresses to update

(5) Range Search

The ASU can search a range of IP addresses for active devices. This is useful when creating lists of devices that will be saved later.

Note: Any device in the range being searched that responds to an ICMP ping will be added to the list of units to update. The updater will ignore non-Geist devices during the update process.

Click "Add IPs" in the main window to open the IP Entry window. Select "Search a range of IP addresses for units" to switch to Range Search mode. Credentials and alternate HTTP port, for units that need them, can be entered here.

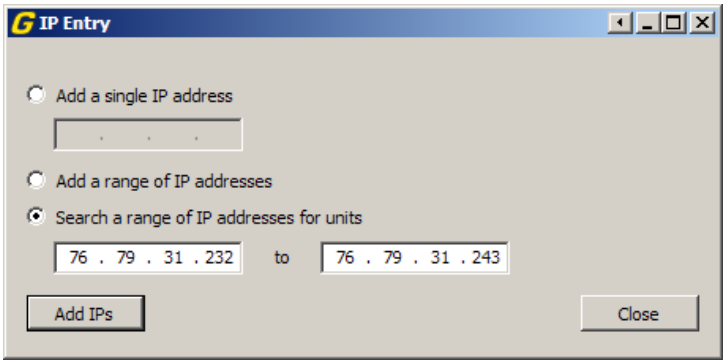

Figure 13: IP Entry window in Range Search mode

Click "Add IPs" to search all of the IP addresses in the range entered for active devices.

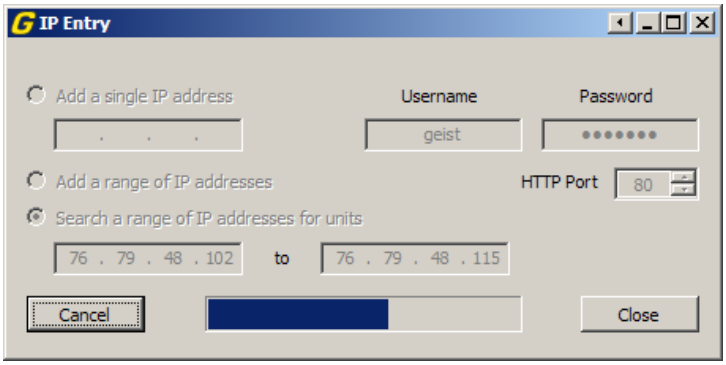

Figure 14: Searching an IP range

When processing is complete, a message will appear indicating how many units were found and added to the list of units to update. Duplicate entries and non-responsive addresses will not be added.

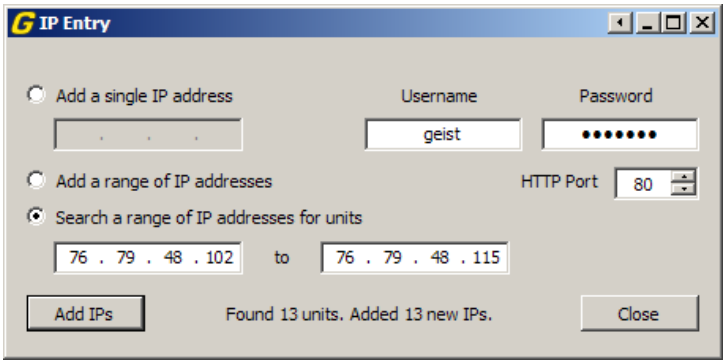

Figure 15: Finished searching an IP range

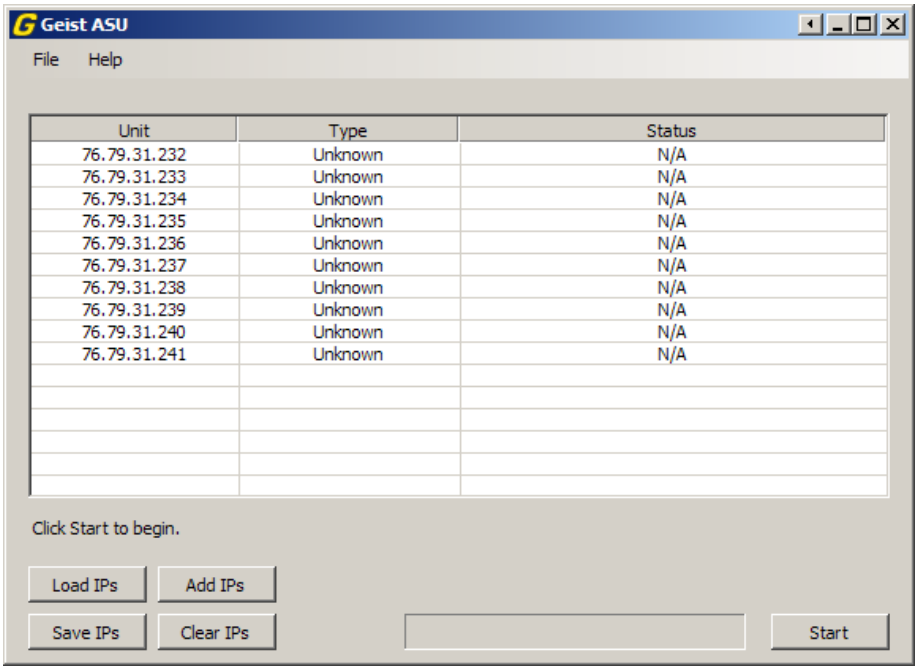

Figure 16: Main window with a range of IP addresses to update

Saving IP Address Lists

Once a list of IP addresses has been entered into the ASU, it can be saved to a text file by clicking "Save IPs." This is useful for generating lists of IPs for use in future updates.

Adding/Modifying Credentials

Depending on their configuration, some units may require credentials to perform a firmware update. Credentials can be entered via IP address files or the IP Entry window (see Entering IP addresses, page 5). Alternatively, credentials can be added, changed or removed by right clicking on one or more IP addresses in the Geist ASU's main window and selecting "Add/Change Credentials" from the context menu.

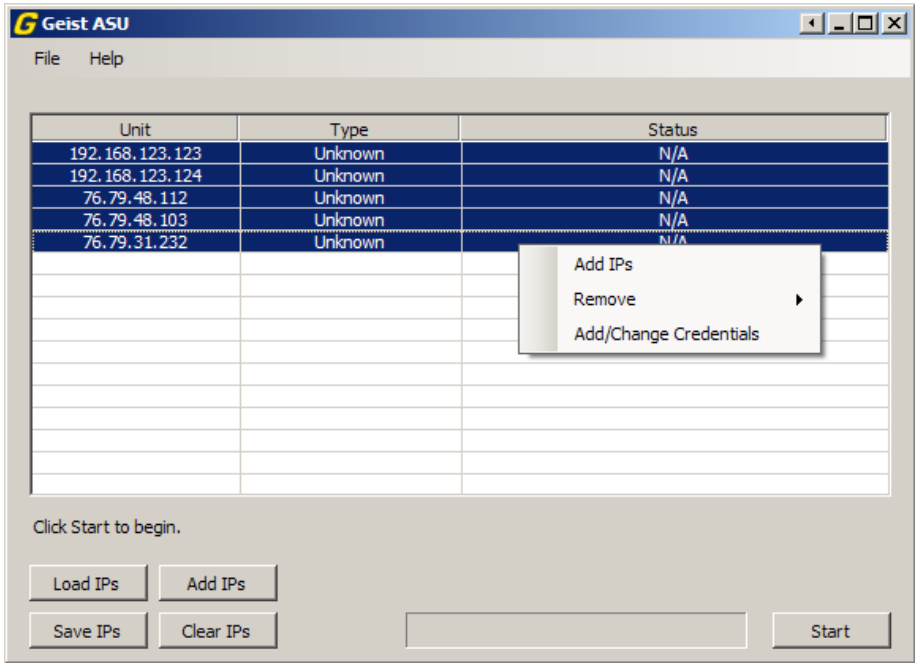

Figure 17: Main window context menu

The Add/Change Credentials window opens with the selected units in a list on the left along with the number of credentials associated with each unit. The credentials for all selected units are shown in a list on the right. Changes made in this window are not permanent until the "Save Changes" button is clicked.

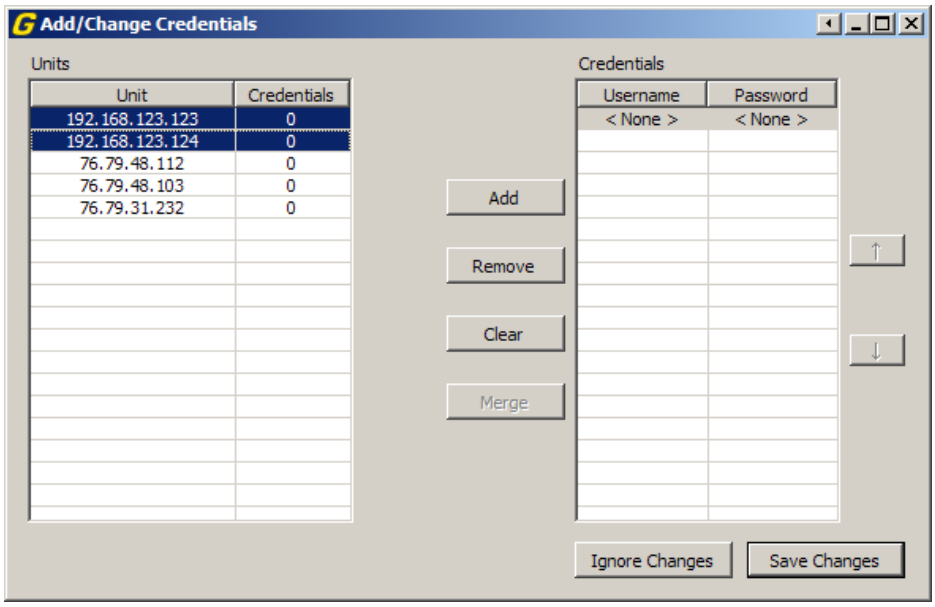

Figure 18: Add/Change Credentials window

Credentials can be added to a unit by selecting it from the Units list and clicking the "Add" button. Credentials can be removed from a unit by selecting them from the Credentials list and clicking "Remove."

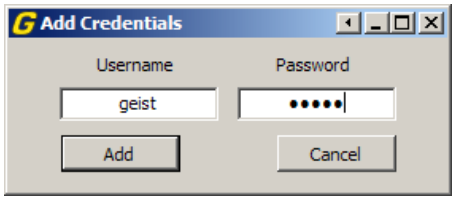

Figure 19: Credentials entry window

Credentials are not applied to a unit until the "Merge" button is pressed. A confirmation box will appear. Clicking "OK" will update the credentials count in the Units list for all selected units.

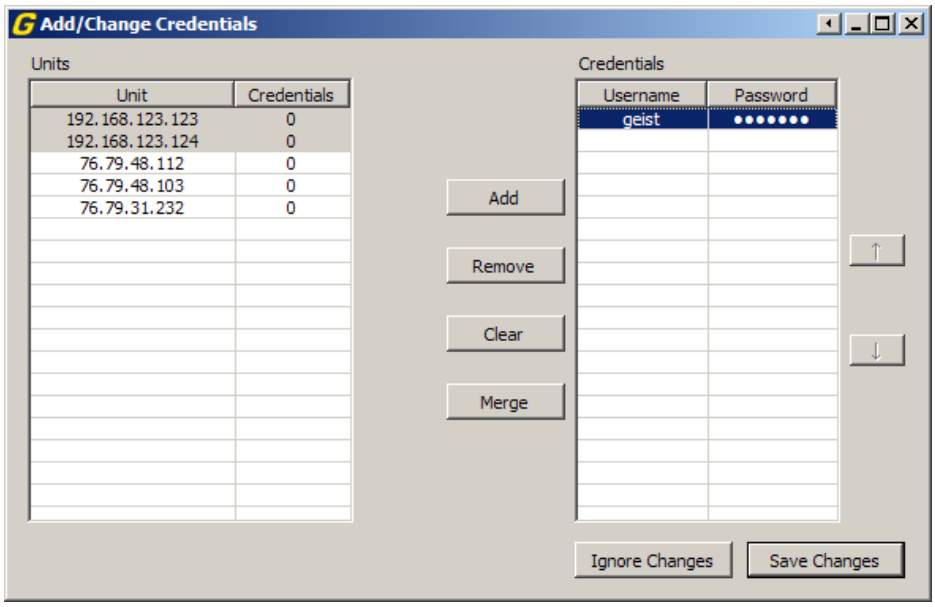

Figure 20: A unit with unmerged credentials

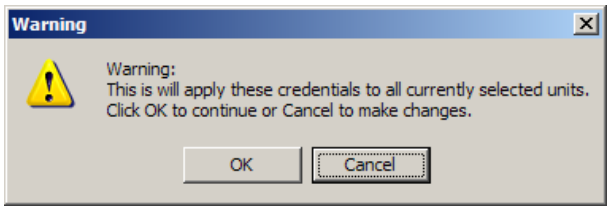

Figure 21: Credentials merge confirmation

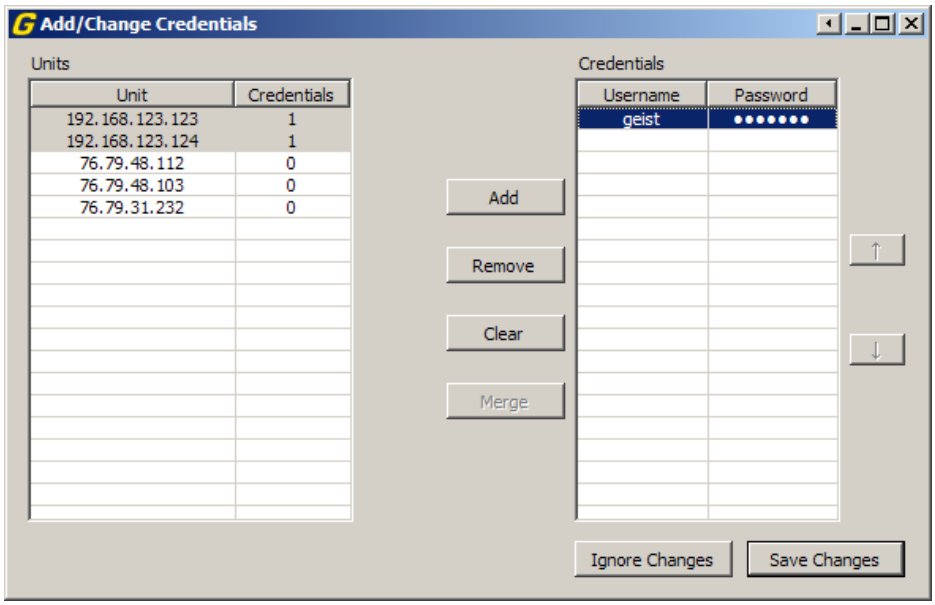

Figure 22: Merged credentials

If a unit is unselected and there are unmerged changes a warning box will appear. Click "OK" to ignore the changes or "Cancel" to ignore the selection change.

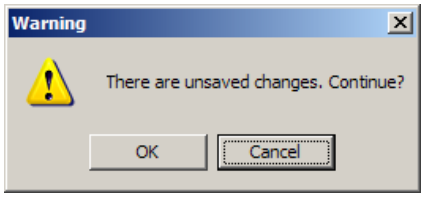

Figure 23: Unmerged changes warning

Once all credentials changes have been made, click "Save Changes" to apply them permanently. Clicking "Ignore Changes" will close the Add/Change Credentials window without making any changes.

If there are any unmerged changes, a warning box will appear. Click "OK" to ignore the changes or "Cancel" to ignore the changes.

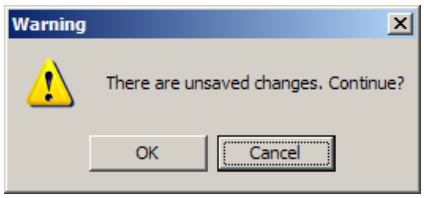

Figure 24: Unmerged changes before saving warning

If any units have multiple credentials a warning box will appear. Click "Yes" to keep the Add/Change Credentials window open or "No" to close it. If multiple credentials are present the ASU will use them in the order they are listed in this window.

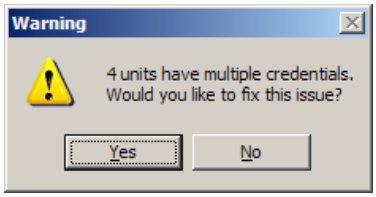

Figure 25: Multiple credentials warning

Updating Devices

One a list of units to update has been entered and firmware is loaded, click "Start" to begin the update process. The ASU will contact each unit via HTTP to determine what firmware is currently installed and will choose the most current available firmware (if any) to load into the device.

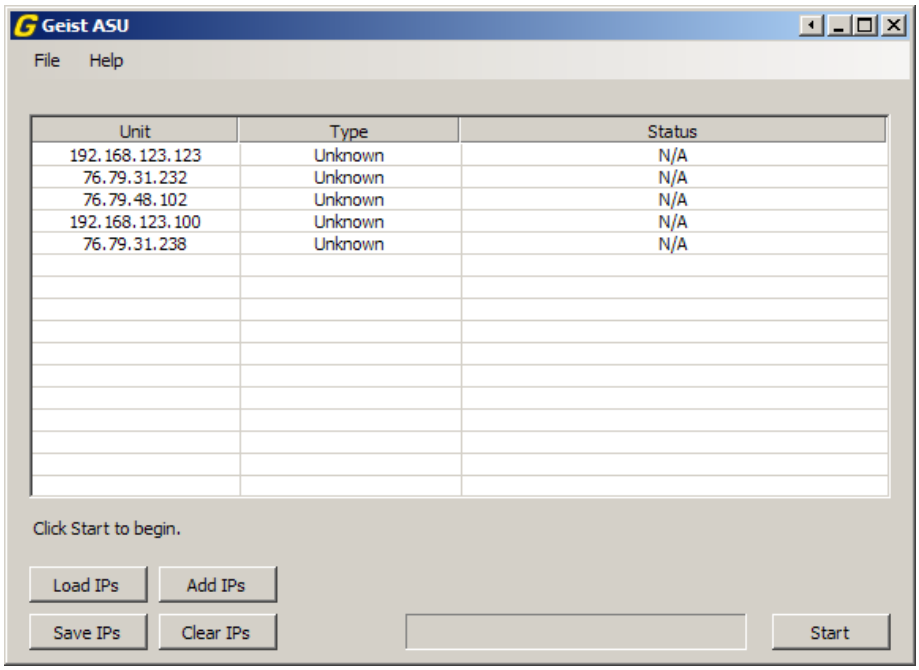

Figure 26: Units waiting to be updated

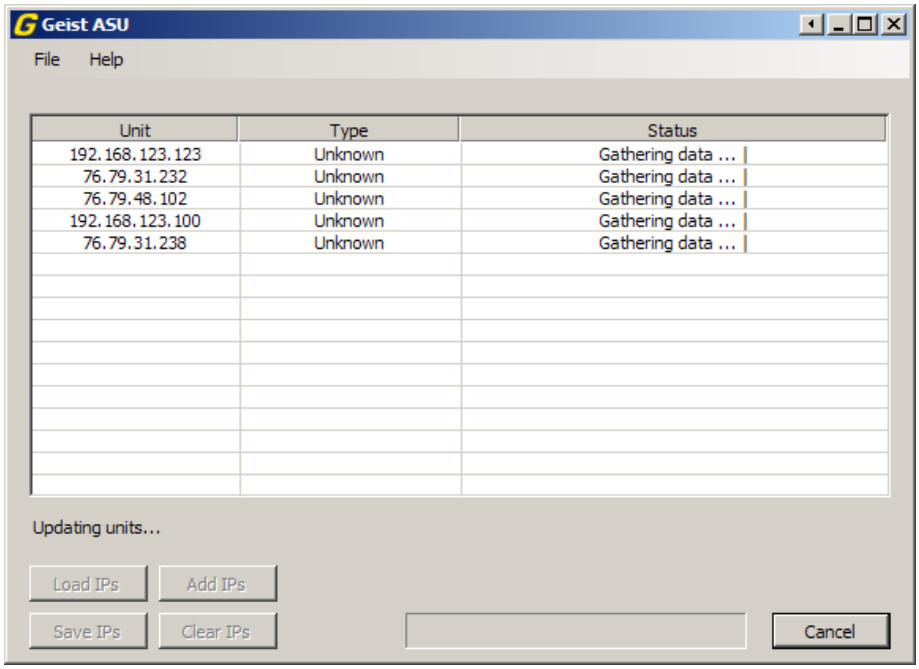

Figure 27: Gathering unit data before update

The ASU will continuously report its progress during an update. Any errors will be logged in the 'Status' column. Clicking "Cancel" will abort any updates that have yet to start. Updates in progress will complete.

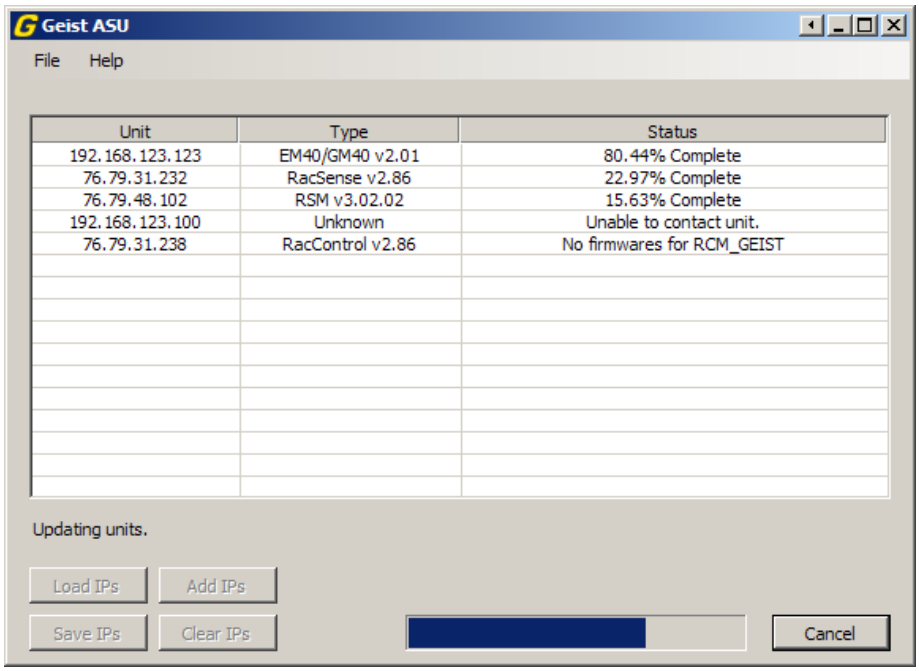

Figure 28: Update in progress

As each update completes, the ASU will check to make sure that the unit's new version matches the uploaded firmware.

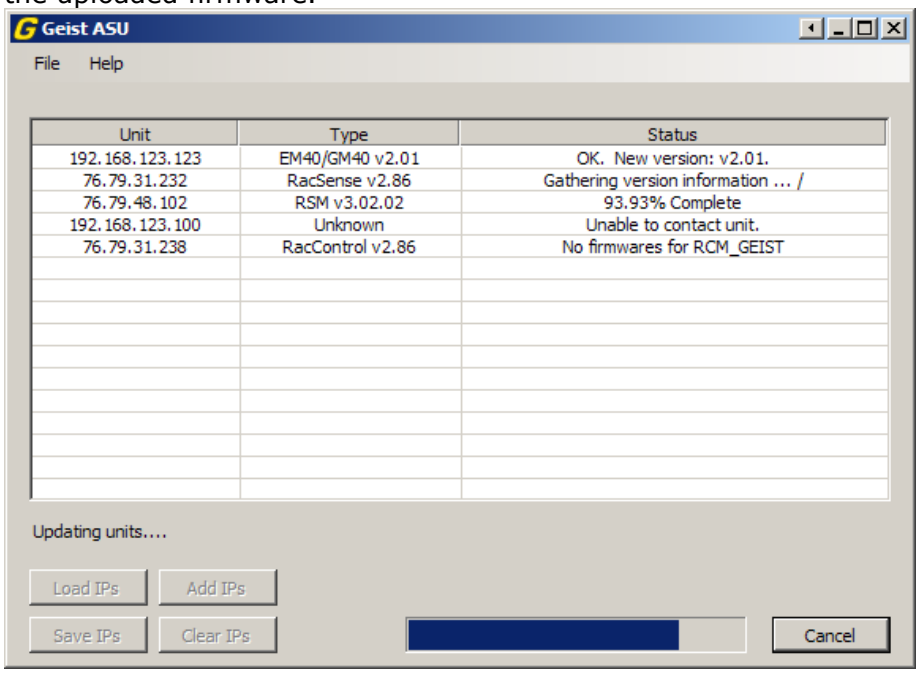

Figure 29: Gathering version data

Status information will remain on the screen until "Clear IPs" is clicked.

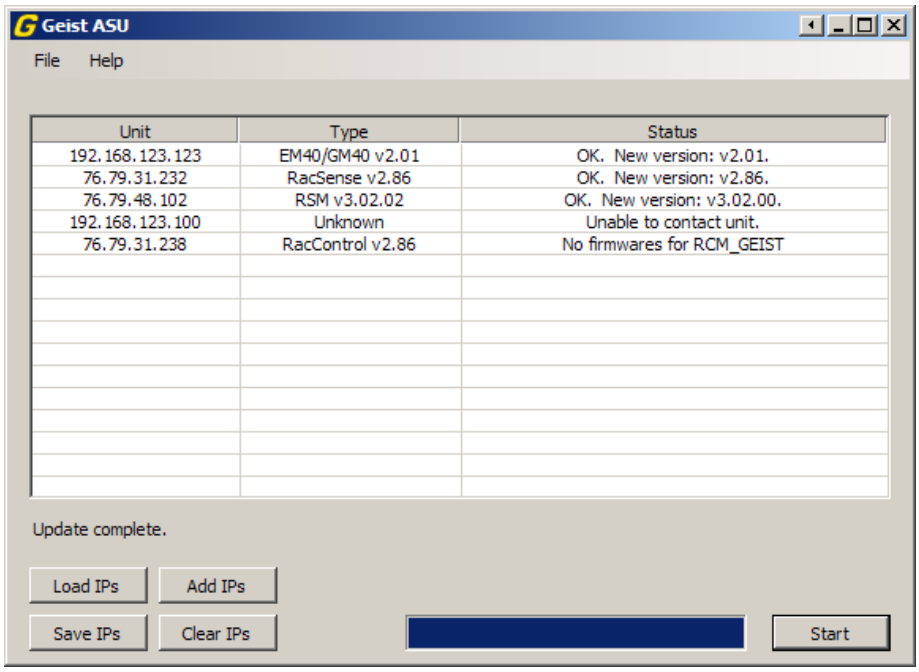

Figure 30: Update complete

Technical Support

Firmware Updates

Keep your unit updated with the latest firmware releases or sign up for notifications. http://www.geistglobal.com/support/firmware.

More Technical Support

http://www.geistglobal.com
(800) 432-3219
Email: support@geistglobal.com
Or contact your distributor.

Table of Figures

Revision History

Revision	Date	Notes	Approved By
1.0	7/1/2009	Initial Version	ADK, APK, BP, JP
1.1	5/25/2010	Updates for version 1.6	ADK, JP
1.2	11/3/2010	Updates for version 1.7	ADK
1.3	12/9/2010	Updates for version 1.8	ADK
1.4	10/18/2011	Changed .NET requirement and added BB100 support. Updates for version 1.9	ADK
1.5	3/31/2017	Updated for R-Series V4 and V5, GU and WD devices, update logo and URLs. Screen shots are NOT updated, taken from ASU of 5 years ago.	DMN