Release Notes: NetAXS-4 Firmware Release 03.06.25

March 29, 2017

NetAXS-4 Firmware R03.06.25 Release Notes

NetAXS-4

Revision 08

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A Quick Look:

There are (2) components in this upgrade package, the applications file (firmware), and the operating system (OS) file. These files can be downloaded from the Honeywell Download Center or by contacting Honeywell Technical Support.

https://mywebtech.honeywell.com/

Sales and Support Services: 1-800-323-4576

WARNING: THE APPLICATION FILE MUST BE DOWNLOADED BEFORE THE OS FILE.

If the firmware version on your panel is at R3.4.18 or earlier apply:

- 1-NetAXS-4_Upgrade_apps03.06.25.bridge.bin
- 2-NX4_OS375_R3.5-or-later.bin

If the firmware version is already at R3.5 or above apply:

• 1-NetAXS-4_Upgrade_apps03.06.25.bin

NOTE: If the OS version is already at the update version then it is not necessary to update again; you may install just the application file.

NOTE: If upgrading the application to R03.06.25 from R3.4.18 or earlier, the inactive set will show 0.0.0. The panel will still function normally with all zeros in the inactive set.

NOTE: WIN-PAK applications require WIN-PAK XE/SE/PE 3.3 or higher for native support. After upgrading the NetAXS Gateway activates encrypted communications. Ensure that WIN-PAK and the NetAXS Gateway are programmed properly - matching the encryption settings.

***** For more details on these files and procedures to upgrade continue reading these release notes.

Information about the Software, Product or System:

This is a cumulative firmware release, and as such, contains all functionality from all previous releases. This release of NetAXS-4 R3.6 also includes new features noted in section 2 below.

Systems that use both NetAXS-123 and NetAXS-4 should also ensure that the NetAXS-123 panels have version R5.2 with OS #375 to provide optimal performance.

This application is a new release (R03.06.25), replacing all previous releases.

The following instructions should be reviewed before installing, using or upgrading NetAXS-4 R3.6.

Notices and Trademarks:

- Honeywell
- NetAXS
- NetAXS-4
- WIN-PAK

Terms, Acronyms, Abbreviations, and Symbols

Below are the terms, acronyms, abbreviations, and symbols used within this document.

Term, Acronym, Abbreviation, Symbol	Definition
V	Version
OS	Operating System
PC	Personal Computer
TZ	Time Zone
IE	Internet Explorer
FF	Firefox
N/A	Not Applicable

I. RELEASE CONTENTS

Product Name and Model:

NetAXS 03.06.25 NetAXS OS #375

Component(s) and Part Number(s):

There are (2) components in this upgrade package; the application file, and the operating system file. These files are available by accessing the Honeywell Download Center or by contacting Honeywell Technical Support. <u>https://mywebtech.honeywell.com/</u>

Technical Assistance Contact Information:

For more information or technical assistance contact your dealer or Technical Support at 1-800-323-4576. If you are an end user please contact your dealer.

Support Resources – MyWebTech

MyWebTech | Customer Portal - <u>https://mywebtech.honeywell.com/</u>

- How-To Video's
- Knowledgebase
- View Cases
- Submit Technical Questions
- Review Database Service Status

II. OVERVIEW OF RELEASE

New Features:

• Event logging for manual request of door energize, de-energize, and pulse has been added.

Compatibility:

- The NetAXS-4 R3.6 supports Internet Explorer 8 (IE8) to Internet Explorer 11 (IE11), and current Firefox (FF) versions.
- Google Chrome and Microsoft Edge are currently not supported.
- WIN-PAK XE/SE/PE R3.3 (Build 670.21 or higher) natively supports NetAXS-4.
- WIN-PAK CS R4.2 (Build 1017.33 or higher) natively supports NetAXS-4.
- Upgrading using NUU or WIN-PAK are currently not supported.

Documentation Updates:

- NetAXS-4 User's Guide
- NetAXS-4 Start-up Guide

List of Issues Resolved (03.06.25 Production Release):

- Outputs will energize when you swipe a card after the time zone expires on a group.
- Supervisor Mode toggles back on at Midnight with NetAXS 4-door.
- Event logging needed for Manual request of door energize and pulse
- If the TZ toggle time zone set as Default Time Zone (24x7), the output will energize before swiping valid card to toggle TZ.
- The state of outputs do not in accord with the group when change the toggle manually
- Reader LED does not follow the state of the output relay controlling the door.
- A manual Pulse will De-energize a manual Energized output.
- Reader LED randomly not following the output controlling the door when the output is in a time zone.
- Pulse Command will cause output to Energize on a Time Zone when using First Valid Card Rule.

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- Reader LED is not following the Output State when the Output Toggle during Time Zone feature is enabled
- Pulse will cause Group to energize when Group is in a time zone.

List of Issues Resolved (03.06.19 Production Release):

- Ack/NAK is grayed out when choosing RS232 for the first time.
- The 'Loop' info is missing on the Host/Loop page when choosing RS-232 mode.
- Egress action occurring within the time zone of a First Card Rule will energize the relay until the end of the time zone.
- Egress action occurring within the time zone of a Time zone Card Toggle will energize the relay until the end of the time zone.
- Sometimes you making changes in WIN-PAK mode then submit, page will jump to Web Mode page.
- "Buffer" option is not working for NetAXS 4 Gateway panels.

List of Known Issues and Workarounds:

- Service level users cannot add cards.
- Web Session Timeout set higher than 4 hours might time out earlier than what is set.
- TZ Card Toggle door may close after swiping card 2 times during pulse time.
- Microsoft Edge is not compatible with NetAXS.

Recommended Minimum Configurations:

Host/Web	Gateway	Loop Туре	Downstream Controllers
WIN-PAK XE/SE/PE R3.3** OR WIN-PAK CS 4.2**	NetAXS-4 R3.6	N/A	N/A (Stand Alone Only)
WIN-PAK XE/SE/PE R3.3.6 OR WIN-PAK CS 4.2**	NetAXS-4 R3.6	RS-485	NetAXS-4 R3.6
WEB	NetAXS-4 R3.6	RS-485	NetAXS-4 R3.6
WEB	NetAXS-4 R3.6	N/A	N/A (Stand Alone Only)
RS-232	NetAXS-4 R3.6	N/A	N/A (Stand Alone Only)

***** It is recommended that WIN-PAK is upgraded to the latest available version.

<u>NOTE:</u> Application code 3.4.13 and earlier are not compatible with kernel version 375. Application code and later are compatible with all kernel versions. It is recommended that application code 3.6.25 using latest kernel version 375.

- When upgrading a NetAXS-4 panel's firmware, the application file must be loaded into the panel before loading the OS file.
- After firmware version 3.6.25 is installed, it is not possible to downgrade to R3.4 or earlier version.
- During high volumes of activity (prevalently caused by motion detectors) a panel may appear as if it is offline when it is actually is on-line. This occurs until traffic on the 485 bus is reduced. Silencing the Egress input may help.
- At times after an upgrade the panel does not automatically reboot and the RUN LED is on solid. The panel

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may need to be manually rebooted (cycle power) if the panel does not come back online for the normal time frame. If the RUN LED has been on solid for more than 12 minutes you may need to cycle power.

After the panel does come back online and the RUN LED is flashing normal verify the upgrade was successful. If using NetAXS Web Server; log in and navigate to Configuration > System > File Management tab to check the version information.

III. CHANGE HISTORY

Application (Firmware)

- 3.6.25 Maintenance release 3.6 for NetAXS-4
- 3.6.19 Maintenance release 3.6 for NetAXS-4
- 3.5.18 Maintenance release 3.5 for NetAXS-4
- 3.4.18 This is a maintenance build.

3.4.15 – This build addresses an issue that could cause a downstream panel to go 'off-line'. Additionally, this build Addresses the "Buffer/Unbuffer via WIN-PAK – Missing Transactions" issue.

3.4.13 – Addresses NX4IN and NX4OUT off-line issue

3.4.7 – Addresses silence egress issue; the NetAXS panel was not recognizing the "tz" slot for the silence command

- 3.4.6 Addresses Anti-passback communications issues using WIN-PAK
- 3.4.5 Added elevator features
- 3.4.3 Release 3.4
- 3.1.9 WIN-PAK communication fixes
- 3.1.8 Release 3
- 2.2.21 Release 2
- 2.1.3 Initial release 1

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Operating System (Kernel)

#375 – The generic/standard Linux TTY and serial driver could randomly stop working for downstream panels.
Therefore, the Linux TTY driver was replaced with a serial driver that specializes in supporting RS-485 communications. Also fixes issue of segment erase failure by adding retries.
#373 – The 4 UART interrupt vectors (priority and levels) were modified to be unique at level 5 because the Linux OS used by NetAXS-4 automatically sets these values that could result in duplicates to the FPGA interrupt vectors.

#368 – Multiple memory chip support for Numonix and Spansion brands was added. This version additionally blocks downgrades to earlier OS that do not support both memory chips.

#363 – Support of flash data compression

#354 – Release 2 OS

#344 – Initial OS release

IV. UPGRADE PROCEDURES:

Overview

The following procedures provide step-by-step instructions for upgrading NetAXS-4 controllers to R3.6 software. The NetAXS-4 R3.6 software upgrade consists of an application firmware update (performed first) and a Linux OS kernel update (performed after the application firmware update).

Important Notes:

- 1. ONCE THE CONTROLLER IS UPGRADED TO R3.6 IT CANNOT BE DOWNGRADED TO R3.4 OR EARLIER.
- 2. WIN-PAK XE/SE/PE 3.0 OR HIGHER WILL WORK NATIVELY WITH NETAXS-4 R3.6.25
- 3. WIN-PAK XE/SE/PE 4.4 OR HIGHER WILL SUPPORT AES 256 ENCRYPTION
- 4. WIN-PAK CS R4.2 WILL WORK NATIVELY WITH NETAXS-4 R3.6.25
- 5. WIN-PAK CS 4.3 OR HIGHER WILL SUPPORT AES 256 ENCRYPTION

WARNING: THE APPLICATION FILE MUST BE LOADED INTO THE PANEL BEFORE THE OS FILE.

The following procedures are provided:

- A. Backing up the database from each panel
- B. Updating the panel (Using Web Interface)

Upgrade Planning

You should plan for approximately 10 minutes to upgrade 1 panel (switched to gateway mode). Depending upon your configuration, to save time, you may be able to start multiple panel upgrades on your loop at the same time. Given the time needed to upgrade your loop, please plan the upgrade so it has the least impact on the access control of the building.

Download the following version numbers:

- Application firmware version: 03.06.25 (use NetAXS-4_Upgrade_apps03.06.25.bridge.bin to update panel if your panel version is R3.4 or earlier)
- Linux OS (kernel update) version: 2.6.10#375 (file name NX4_OS375_R3.5-or-later.bin)

NOTE: If the OS version is already at the update version then it is not necessary to update again; you may install just the application file.

NOTE: After the upgrade of the application to R3.6 from R3.4 or earlier, the inactive set will show 0.0.0. The panel will still function normally with all zeros in the inactive set. 31

Mixed firmware revision NetAXS-4 loops

Upgrade your loop by starting with the gateway panel first. It is expected that you are running the current Firmware Release (3.4.3 or higher), before you upgrade to this release. It is not recommended that you have earlier builds on your panels before applying the new OS, since there were access level changes in the database Coming from R2 to R3. Please ensure that all NetAXS-4 panels on the loop are running the latest release.

Recommended Preliminary Step for Web-Based Panels: Backup your Databases

NOTE: The upgrade scripts bring all your panel data forward into the new version without the need for user intervention. That is said, it is always recommended to have backup copies of your panel's databases, and upgrade time provides an opportunity to keep your backups current. The procedure below can be used to backup each of your panel's databases. The backup features are per panel, so the user will have to first select the desired panel to backup.

NOTE: When upgrading from firmware version 3.4.x or lower to 3.5.x or higher, maybe the backup isn't compatible with firmware version 3.5.x or higher. (Refer to the Backup & Restore Compatibility Firmware matrix below.)

If in the event of a scenario where firmware version 3.4.x or lower backup is required to be restored into firmware version 3.5.x or higher contact technical support at 800-323-4576 to have the backup converted to the production firmware release.

IMPORTANT: RECOMMEND TO BACK UP THE DATABASE AGAIN AFTER THE FIRMWARE UPGRADE.

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	Compatible Restore Version			
Firmware Backup	3.1.x	3.4.x	3.5.x	3.6.x
3.1.x	1	×	×	1
3.4.x		1	~	\checkmark
3.5.x			1	1
3.6.x				1

Backup & Restore Compatibility Firmware:

A. Uploading data from the panel

- 1. Select the panel to backup from the Select Panel section in the Web Server.
- 2. Navigate to Configuration > System > File Management tab.
- 3. Under "upload", select each one of the following upload options from the drop-down menu: Card Report (Long), Cards and Common Configuration; Panel Configuration; Card, Common, and Panel Configuration. <u>NOTE:</u> You will be prompted to enter a password if the panel is at R3.6 or higher. If you try to install the database on a different gateway panel, you will need to enter this password.
- 4. Click **Upload** to upload the data to the host PC or laptop.
- 5. Follow the instructions to save a backup file on your PC. Give the backup file a useful name for easy restoring.

NOTE: You should repeat the process to get a copy of each of the menu options listed in step 3. The user should start with the "Card, Common, and Panel Configuration", and "Card Report (Long)" at a minimum for a backup of the entire database and cards.

B. Upgrading Panels Using the Web Server

NOTE: Upgrading panels using NUU or WIN-PAK are currently not supported. **NOTE:** You cannot have more than one gateway on a loop.

In order to reduce the time required to install this version on your **"downstream"** panel, each panel can be removed from the loop and configured as a Gateway panel (disconnect the RS-485 before making it a gateway) by following these steps;

- 1. Setting DIP switch 6 to ON
- 2. Connecting directly to each panel via a Local Area Network or direct-connect Ethernet connection,

Remember to return their configuration back to a downstream panel once the upgrade has been successfully completed. Refer to NetAXS: Access Control Unit User's Guide, section 1.2 "<u>Connecting to the Web Server</u>" for each of the downstream panels on a loop.

Step 1: Before starting, if the loop is connected to WIN-PAK make sure the panels are in an un-buffered state. The un-buffered state means the panel or loop is online and reporting all events immediately, in real time, and not storing them for later. If WIN-PAK has not been connected recently, you should login and make sure all panels are un-buffered, thereby allowing them to report all events that may have occurred but have not been reported. In the end it leaves you in a state where current events are coming in. A sign that the panels have not

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been un-buffered would be if you try to login to the Web Server and get excessive "time-outs"; in this case your panels are likely busy trying to un-buffer buffered events and you should wait for them to complete their un-buffering before starting the upgrade.

NOTE: For WIN-PAK systems, it is recommended that you stop the "communications server service" while Upgrading and restart it once your panels are upgraded.

Step 2: Set the panel to Web Mode (if it is not already set)

NOTE: WIN-PAK XE / SE / PE 3.0 and higher and WIN-PAK CS 4.2 and higher where the NetAXS panel is Programmed as a NetAXS, you will need to first "Enable NetAXS Web Mode" from the WIN-PAK Control Map. Administrator level is required to make this change.

- A. Connect to your Gateway panel using the instructions from: NetAXS: Access Control Unit User's Guide, section 1-2 Connecting to the Web Server.
- B. Once logged into your Gateway panel, then go to the System Host/Loop Communications tab, and select "Web Mode" from the drop down list. Click "Submit Changes" and wait 5 seconds.

WARNING: THE APPLICATION FILE MUST BE DOWNLOADED BEFORE THE OS FILE.

Step 3: Install the new application file

- A. Navigate to the web server screen, Configuration > System > File Management tab.
- B. Under "Download" click on the Browse button to locate the application file.
- C. Select the file and click on the Download button. Click OK to Continue. Once the "download complete" Message pops up, click OK again.
- D. You will see the "download image" message indicating to wait 10 minutes for a reboot. This time a reboot will be triggered.

Step 4: Install the OS file

NOTE: May not be needed, panels may already be at the latest OS.

- A. Navigate to the web server screen, Configuration > System > File Management tab.
- B. Under "Download" click on the Browse button to locate the OS file.
- C. Select the file and click on the Download button. Click OK to Continue. Once the "download complete" Message pops up, click OK again.
- D. You will see the "download image" message indicating to wait 10 minutes for a reboot. This time a reboot Will be triggered.
- E. **Clear Cache:** This time, before logging back in, use the browser dependent steps below to clear your Browser cache. You can navigate away from the current web screen, clear the files, and then navigate back.
- F. Once the temp files are cleared, and you have waited 10 minutes, or have heard the relays, click "refresh" and log back in.

Step 5: Check that the installed versions are correct

- A. Navigate back to the web server screen, Configuration > System > File Management tab.
- B. In the Version Information section, you should see the new application versions listed. The Access Control App for your selected set should show version **3.6.25**. The OS should show the version **#375**.
- C. For WIN-PAK based loops, it is recommended that you run a full download to all the panels once the new version is installed.

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D. If you notice any communication issues, and the upgrades are complete, you likely had more than one panel set up as a gateway, and you should reset all the panels in the loop to clear the issue.

Step 6: WIN-PAK Users – verify Host configuration settings in the web

- A. Navigate back to the web server screen, Communications, and select Host / Loop.
- B. Ensure the Host dropdown list has "WIN-PAK" selected.
- C. Check all of the setting in the WIN-PAK section on the web page to ensure they match the settings in the WIN-PAK host software.
- D. For WIN-PAK based loops, it is recommended that you run a full download to all the panels once the new version is installed.
- E. If you notice any communication issues, and the upgrades are complete, typically there is more than one panel set up as a gateway on the active loop. You should disconnect each panel from the 485 loop (C-TB9), cycle power on all the panels on the loop. Once all panels are powered up, reconnect the 485 loop to clear the issue.

NOTE: After the upgrade encryption is activated by default in the NetAXS-4 web server. An encryption key is generated automatically. The same encryption key (or encrypted password) needs to be programmed in the WIN-PAK server. If encryption is not used in WIN-PAK then disable it in NetAXS-4 web server.

F. If there were any changes made click on the "Submit Changes" button.

NOTE: For more details see the NetAXS-4 User Guide.

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Firefox (FF42 shown)

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How to Clear the Cache and Cookies in the Internet Browsers used by the NetAXS-4 Web Server

It is recommended that the cache be cleared following a successful upgrade.

PLEASE NOTE:

After upgrading a NetAXS-4 panel to R3.6 you must clear your browser's cache.

To clear the cache in either Firefox or Internet Explorer, press these 3 keys simultaneously:

Ctrl + Shift + Del

Then, ensure that the selections pictured in the following popups are chosen and click

"Clear Now" (Firefox)	or	"Delete" (Internet Explorer).
		Delete Browsing History
		Preserve Favorites website data Keep cookies and temporary Internet files that enable your favorite websites to retain preferences and display faster.
		Imporary Internet files and website files Copies of webpages, images, and media that are saved for faster viewing.
Clear All History		Cookies and website data Files or databases stored on your computer by websites to save preferences or improve website performance.
Ime range to clear: Everything		List of websites you have visited.
All selected items will be cleared. This action cannot be undone.		Download History List of files you have downloaded.
D <u>e</u> tails		Form data Saved information that you have typed into forms.
Browsing & Download History Form & Search History		Passwords Saved passwords that are automatically filled in when you sign in to a website you've previously visited.
 ✓ Cookies ✓ Cache ✓ Active Logins 		Tracking Protection, ActiveX Filtering and Do Not Track A list of websites excluded from filtering, data used by Tracking Protection to detect where sites might automatically be sharing details about your visit, and exceptions to Do Not Track requests.
Offline Website Data Site Preferences		
Clear Now Canc	el	About deleting browsing history Delete Cancel

Internet Explorer (IE11 shown)

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If you receive a Certificate Error When Using Internet Explorer in Windows, follow these steps to login:

- 1. Enter the IP Address of the panel into the URL box then hit Enter on the keyboard.
- 2. Click on the "Continue to this website (not recommended)".
- 3. The screen next displays the NetAXS-4 Login screen, proceed to login.

If the Internet Explorer version does not seem compatible with NetAXS-4 web screen:

- 1. Click on Tools in the menu bar of the web browser.
- 2. Select "Compatibility View settings".
- 3. Add the gateway panel's IP address and click on the "Close" button.

If you receive an Insecure Connection Error When Using Firefox in Windows, follow these steps to login:

- 1. Enter the IP Address of the panel into the URL box then hit Enter on the keyboard.
- 2. Click on "Advanced" button to expand the screen.
- 3. Click on the "Add Exception" button to display the Add Security Exception popup.
- 4. Click on the "Get Certificate" button. "Unknown Identity" message will appear in the middle of the screen.
- 5. Click on the "Confirm Security Exception" button. Task bar shows it is connected.
- 6. The screen next displays the NetAXS-4 Login screen, proceed to login.