

Excel 15B ver. 02.02.00

SOFTWARE RELEASE BULLETIN

- A. O.S. NUMBER:** W7760B2001
- B. DESCRIPTION:** Excel 15 W7760B Building Manager is a Light Commercial Building Solution (LCBS) Web-based operator interface (network server) and LONWORKS® Bus supervisory controller. As an operator interface, it connects to the Internet, local area network (LAN), or wide area network (WAN) providing multi-user access to Web pages for Building Manager configuration, LCBS monitoring, and command functions. As a building manager, it uses LONWORKS® to provide network-wide alarm handling, trending, scheduling, trend logging and monitoring building's rate of energy consumption (using Demand Limit Control (DLC)) for application specific Excel 10 controllers and Excel 15 W7760C Plant controllers. Excel 15 W7760B Building Manager is a network appliance equipped with a hard drive. The use of a hard drive greatly expands the alarm handling, scheduling, and logging capabilities when compared to EPROM/RAM based control devices. It queries the LONWORKS® network to identify the controllers installed and self-configures display pages for each supported controller.
- C. DISTRIBUTION MEDIA:** Excel 15B Controller Box.
- D. SOFTWARE REQUIRED:** HyperTerminal for initial setup and Microsoft® Windows® Operating System with Microsoft® Internet Explorer (IE) 5.5 and above to access Web pages.
- NOTE: Suggested screen resolution is 1024 by 768 pixels
- E. HARDWARE REQUIRED:** For hardware requirements, refer to the Excel 15B Installation Instructions Manual.
- F. INSTALLATION INSTRUCTIONS:** Form 95-7668.
- G. HARDWARE COMPABILITY:** Excel 15B currently supports the following controllers:
- | | |
|----------------|---|
| Q7300H | Communicating sub-base for T7300 |
| W7750A,B,C | Constant Volume Air Handler Unit Controller |
| W7751B,D,F,H,J | Variable Air Volume II Controller |
| W7753A | Unit Vent Controller |
| W7760C | Plant Controller |
| W7760D | RapidZone™ Controller |
| W7761A | Remote Input Output Controller |
| W7752D,E,F,G J | Fan Coil Controller |
| W7762A, W7762B | Hydronic Controller |
| W7763C | CHC Controller |
| T7350 | Communicating Sub-base for T7350 |
| NX VFD | NX Variable Frequency Drive |



H. SOFTWARE

COMPATIBILITY: Use Excel 15B to manage sites that are engineered with LONSPEC™ or RapidZone.

I. APPLICABLE LITERATURE:

Engineering Manuals

74-2865	LONWORKS® Bus Wiring Guidelines
95-7668	Excel 15B W7760B Installation Instructions Manual
74-3472	Excel 15B W7760B Specification Data
95-7611	Excel 15C W7760C Installation Instructions
74-3079	Excel 15C W7760C Plant Controller Specification Data
95-7521	Excel 10 W7750A, B Constant Volume AHU Controller Installation Instructions
74-2958	Excel 10 W7750A B Constant Volume AHU Controller System Engineering Manual
95-7504	Excel 10 W7751B, D, and F VAVII Installation Instructions
95-7553	Excel 10 W7751H Smart VAVII Installation Instructions
74-2949	Excel 10 W7751B, D, F, H VAVII System Engineering Manual
95-7520	Excel 10 W7753 Unit Ventilator Controller Installation Instructions
74-2964	Excel 10 W7753 Unit Ventilator Controller System Engineering Manual
95-7539	Excel 10 W7761A Remote Input / Output Device Installation Instructions
74-2699	Excel 10 W7761A Remote Input / Output Device System Engineering Manual
62-0155	T7300F/Q7300H Series 2000 Commercial Thermostats and Communicating

Subbase Installation Instructions

63-4365	T7300F/Q7300H Series 2000 Commercial Thermostats and Communicating Subbases System Engineering Guide
62-0195	T7350 Installation Instructions Manual
63-1299	T7350 Specification Datasheet
63-2604	T7350 Owner's Manual
74-2935	Excel 10 W7762 A,B Hydronic System Engineering Guide
74-2989	Excel 10 W7763 C Chilled Ceiling Controllers Specification Data
74-2959	Excel 10 W7752 D,E,F,G Fan Coil Unit Controllers Specification Data
95-7700	RapidLink™ Dialup Network Adapter Product Data
74-3981	RapidLink Dialup Network Adapter Specification Data

NOTE: For more information on NX VFD, refer to the VACON's Website - www.Vacon.com.

J. APPLICATION NOTES: The performance of Excel 15B depends on the TCP/IP Network communication speed, the number of controllers in the LON® network, and configuration of Excel 15B controller.

1. Excel 15B performs device discovery automatically upon start up and once in a day. Also, You can perform device discovery manually, when required.
2. Excel 15B supports a maximum of 120 controllers—a combination of NX VFD, Excel 10 controllers and Excel 15C Plant controllers. These controllers can be on multiple domains or subnets but they must have unique subnet or node ID combination across domains.
3. Excel 15B is configured to support NX VFD, Excel 10 and Excel 15C controller system alarms.

NOTE: Excel 15B supports a maximum of 500 User Defined Alarms.

4. Excel 15B is pre-configured to trend NX VFD, Excel 10 and Excel 15C controller standard points.

NOTE: Excel 15B supports a maximum of 100 User Defined Trends of 10 controller points each.

5. Excel 15B supports configuration of Time-of-Day Schedules for Excel 10 controllers and Excel 15C (Control Loops and SS Loops) objects.

6. Excel 15B provides the following seven User Access Levels; the higher access levels can perform the activities of all the lower access levels, the vice-versa is not possible.
 - System Administrator - can perform all the activities of the lower levels. In particular, can change Excel 15B System settings and update User profiles.
 - Building Engineer - can perform all the activities of the lower levels. In particular, can configure DLC loads and assign these loads to external objects.
 - Assistant Building Engineer - can perform all the activities of the lower levels. In particular, can create and modify Special Displays.
 - Contractor - can perform all the activities that are allowed for a Chief Operator.
 - Chief Operator - can perform all the activities of the lower levels. In particular, can create and modify User Defined Trends.
 - Assistant Operator - can perform all the activities of the lower level. In particular, can configure Global, Weekly, Holiday, and Temporary Schedules but will not be able to perform any configuration activities like configuring a User Defined Trend, User Defined Alarm or a Special Display.
 - Tenant - can only view all the Special Displays, Trends, Alarms, DLC Status and Graph, and Controller Settings. Does not have permissions to Initiate/Cancel Occupied Bypass, Write Setpoints to a controller or perform Device Discovery.
7. Other than Excel 15B, if an Excel 15A, Q7300 or T7350 controller is present in the network, then make sure that the schedules assigned to Excel 10 controller or Excel 15C object are from Excel 15B, Excel 15A, Q7300, or T7350.
8. If access to Excel 15B is configured through a Web Proxy Server, the settings in the Proxy Server can interfere with the behavior of the system. Some functions like the Save Database, Restore Database, and Install Package take more time to complete if the proxy server used is configured for short time out intervals.
9. Excel 15B can act as Time Master on the LON® network and update time in all the discovered Q7300s and T7350s.
10. In addition to 'US English', Excel 15B also supports 'Deutsch' and 'French' languages. 'Excel 15B Login' page has the capability to know your preferred language from the browser settings. When creating a new user, the System Administrator can select the preferred language of each user ('US English', 'Deutsch', or 'French').

NOTE: If the language selected is 'English Metric', then Excel 15B displays all the engineering units in Metric units. For example, the unit for temperature is Deg F in US units and Deg C in Metric units. Refer Excel 15B user guide for more information.

11. The 'System::View' page displays a default graphic for the selected controller. To view the controller settings with a different graphic background, select the graphic of your choice from the list displayed in the 'Select Graphic' list. In addition, you can also change the page refresh rates.
12. Backup and Restore of complete configuration is supported in Excel 15B. 'Save DB' and 'Restore DB' operations are redesigned to encrypt and sign the backed up data to make the backup tamper proof.

NOTES:

- 'Save DB' doesn't take backup of trend logs in the backed up file. Trend logging restarts when the backed up file is restored.
- 'Restore DB' is not downward compatible with Phase I backup file.

13. Directly install the service packs and updates of the RPM format from the Web-based UI instead of logging into the Serial Console to upgrade the software.
14. Perform off-line configuration of Excel 15B alarms, trends, schedules and DLC from LONSPEC™.
15. Commission NX VFD, Excel 10, Excel 15A and Excel 15C controllers from LONSPEC™ using Excel 15B as the Network Interface.
16. The System Administrator can store LONSPEC™ project file in Excel 15B for future retrieval purpose.
17. When you are connected to Excel 15B from LONSPEC™ and another user tries to access Excel 15B before you release the connection, the following message is displayed:

"Excel 15B system access is blocked currently for maintenance. Please try after some time."

18. It is recommended that a minimum sampling rate of 15 minutes (not less than a 15 minute interval between samples) be used in the trend configuration if there are more than 500 points configured for trending.

K. NEW FEATURES:

1. Excel 15B can now monitor the energy consumption rate (KW) continuously, using the Demand Limit Control (DLC) feature. Based on the KW value read, loads are automatically shed or restored to prevent demand from exceeding the maximum allowable setpoint configured.

NOTE: Refer to Excel 15B online help for more information on DLC. Click 'Help' on a DLC page to view the help topics.

2. Excel 15B supports T7350, Communicating Sub-base for T7350 thermostat. The functionality supported is the same as that provided for Q7300H.
3. Excel 15B supports monitoring of NX VFD.
4. You can cancel the occupied bypass mode of a device or object using the 'Cancel Bypass' option. The Effective Occupancy and Scheduled Occupancy of the selected device or object changes to "UnOccupied". In case the device or object is not in the bypass mode, it just ignores the Cancel Bypass command.

L. ENHANCEMENTS:

1. If you try to install a package that is already installed, the following message is displayed:
"This package is already installed."
2. If you connect Excel 15B to an external SMTP server, the SMTP server address, a valid e-mail address, and user name and password for server logon (optional) must be provided. Contact your System Administrator for a valid user name and password.
3. When you try to delete the Excel 15C that is configured to accept the Pulse Meter input in the DLC configuration, a caution is displayed on the 'System Administration::Network Summary::Device List' page.
4. When you click an Excel 15C plant controller in a point selection popup window, the user configured Analog Inputs (AIs) and Digital Inputs (DIs) are displayed along with the existing list of AIs and DIs.
While configuring in LONSPEC™, you can rename an Excel 15C Plant controller AIs or DIs with the actual task being performed. For example, if you have configured a particular AI to read the first floor space temperature, you can overwrite the default AI name as 'Frst flr Sp Temp'. The same is reflected in the Excel 15B point selection popup windows.
5. Excel 15B displays the actual problem that occurs during the package installation, as an error message on the 'System Administration::Install Package' page.

NOTE: The package is not internationalized and the error messages are displayed only in English.

M. KNOWN ISSUES AND WORK AROUNDS:

1. Excel 15B allows you to specify setpoints of your choice for T7350 that can be beyond the configured range. T7350 does not read the "Range Stops" values when validating the setpoints entered. However, T7350 has in-built mechanism to handle this situation and hence is not a problem.
2. Excel 15B does not display all Excel 15C configured loops as one or more File Read operations on the controllers might have failed.
Work Around: Perform device discovery to refresh the list or initiate the File Read operation.
3. When you select Excel 15C from the list of controllers displayed under the 'Device List' icon, the Excel 15C Loop names with junk characters are displayed.
Work Around: Click 'Refresh Configuration' on the 'System::View' page for proper display of Excel 15C loop names.
4. Controller in the network stops responding or goes off-line.
Work Around: Follow these steps to replace the controllers:
 - a. Note all the configuration parameters related to that controller (e.g., Trend points, Alarms and Schedule objects).
 - b. Delete the controller from the 'System::View' page.
 - c. Commission the new controller through LONSPEC™ or RapidZone. Make sure that the new controller has the previous controller's node ID or is given a new, unused node ID.
 - d. Perform Device Discovery in Excel 15B.
 - e. Reconfigure all the points for this new controller.
5. Excel 15B might be unstable if the same controller listing exists on another Excel 15B or on LONSTATION™/LONSPEC™ in the same LON® network.
It is recommended to have only one Excel 15B or LONSTATION™/LONSPEC™ in a single Lon® network.

6. If the browser cache is not cleared, there might be some invalid or old data displayed in applications. Also, the following related issues are observed:
- The old trend data and download files cached in browser are displayed.
 - An invalid session error occurs due to the caching of html pages.
- Work Around:** Follow these steps to clear the cache and restart browser:
- a. In IE, go to 'Tools' > 'Internet Options'.
Result: The Internet Options window is displayed.
 - b. Go to 'General' tab and click 'Settings' in the 'Temporary Internet files' section.
Result: The 'Settings' dialog box is displayed.
 - c. Select the 'Every visit to the page' option and click 'OK'.
 - d. Click 'Delete Files...' in the 'Temporary Internet files' section.
Result: The 'Delete Files' dialog box is displayed.
 - e. Check the 'Delete all Off-line Content' checkbox and click 'OK'.
Result: All the cached files are deleted.
 - f. Click 'OK' to close the 'Internet Options' dialog box.
 - g. Restart the browser.
7. When you click any Excel 15B main link, the following security alert message is displayed:

"This page contains both secure and non-secured items. Do you want to display the non-secured items?"

Work Around: Follow these steps to suppress this message:

- a. In IE, select 'Tools' > 'Internet Options'.
Result: The Internet Options window is displayed.
- b. Go to the 'Security' tab and click 'Custom Level'.
Result: The 'Security Settings' dialog box is displayed.
- c. Select 'Disable' under the 'Display Mixed content' heading.
Result: Display of non-secured items is disabled.

NOTE: The given work around is applicable only for IE 6.0. For IE 5.5, download the respective service pack from the Microsoft® download site and install the same.

8. During restore operation, though the new data is loaded into Excel 15B, the existing data is not erased completely. This results in the generation of alarms even when Excel 15B is not connected to Lon® network.
- Work Around:** Restart Excel 15B.
9. When software upgrade packages of 15MB or more are uploaded from the browser to Excel 15B and the browser requests are going through proxy server, the proxy server can time out and hence, the upload will not be completed.

It is suggested that the proxy time out be increased after consulting the concerned Network Administrator or alternatively, use the 'Bypass Proxy' option, if it is available. By default, this option is enabled in IE 5.5 and 6.0. If it is disabled, then follow these steps to enable it:

- a. In IE, select 'Tools' > 'Internet Explorer Options'.
Result: The Internet Options window is displayed.
 - b. Go to the 'Security' tab and click 'Custom Level'.
Result: The 'Security Settings' dialog box is displayed.
 - c. Enable all the options mentioned under 'Scripting'.
10. When you access Excel 15B using the Serial Console, the software 'mgetty' that provides Serial Console interface times out after a certain period of inactivity and restarts automatically. During the inactivity period, it logs the following error message in the Messages Log file: "failed dev=ttyS0, pid=xxxx, login time out "
- There is no option to disable the time out as of now and it does not hinder the functionality of Excel 15B.
11. When you enter the month as '08' or '09' in 'Date Range From (MM/DD/YYYY)' and 'Date Range To (MM/DD/YYYY)' on the 'Alarms' page, the following error message is displayed:

"The From Date you have entered is not valid. Please enter a valid date in MM/DD/YYYY format" or "The To Date you have entered is not valid. Please enter a valid date in MM/DD/YYYY format".

It is due to a Java Script interpreter problem in IE, which in turn causes functional problems in the 'Alarms' page.

Work Around: Enter just '8' or '9' instead of '08' or '09' as the start/end month.

12. After Excel 15B has started trending, if you change the system date to past, Excel 15B logs the following error message in the Error log file - "Illegal attempt to update using time 1098977703 when last update time is 1099337516 (minimum one second step)". It is because Excel 15B will not be able to trend the controller for a date that occurs in the past.
13. When Excel 15B is plotting the trend or the KW value on a graph, if you change the system time to a future time, there will be a break in the lines plotted on the graph. The length of the break is proportional to the difference between the current time and the previous time. This is because trend sample or KW value for that period does not exist in Excel 15B. This results in gaps in the lines plotted on the graph.
Work Around: Set the time before configuring trends and DLC. It is advised that the system time not be changed frequently.
14. If you view the DLC graph when the current energy consumption rate (green line) is partially updated compared to the peak energy consumption rate (blue line), you can see a gap between the two lines (green and blue lines). This is because Excel 15B reads these values from two different files.
Work Around: Refresh the 'DLC::Graph View' page.
15. Excel 15B SMTP server cannot send e-mails to the intended recipients if their e-mail addresses are incorrect or their SMTP server is inoperative. Excel 15B does not raise an alarm for such undelivered e-mail messages that are generally termed as 'bounced' e-mails.
16. Excel 15B generates 'Node Clash' alarms during Device Discovery.
17. After successful login, when you enter 'Network Settings' at the Serial Console prompt, the current network configuration of the Excel 15B box is displayed with the Host Name appearing in the next line leaving the current line blank.
18. Excel15B is enhanced to recover from the Segmentation fault problem immediately. However, you can still see the error in the System log downloaded from Excel 15B.
19. While changing your password on the 'Change Password' page, Excel 15B will not prompt that you have exceeded the maximum limit of 30 characters. Excel 15B validates the characters entered and stops accepting once the limit exceeds 30. As the characters you type are displayed as "**", it is difficult to notice that the characters being typed are not accepted.
20. If you remove the Ethernet cable when the restore is in progress, Excel 15B performs a partial restore of the backed up configuration.

NOTE: It is advised not to disconnect the Ethernet cable when the restore is in progress.

21. Immediately after reloading DLC configuration, 'DLC Status' page does not reflect the actual status of the DLC service. Instead the configuration load status is displayed as 'Override' for around 15 seconds. This is because the override condition is configured on a particular controller point and Excel 15B takes some time to read the values. During this period, DLC for safety reasons considers the point as invalid.
22. 'DLC Status' page does not reflect the actual status of DLC service. The DLC status data gets synced with DLC service actual status at least once in staging interval period and not when any of the status values changes.

N. LIMITATIONS:

1. When you change the system time, the footer doesn't refresh immediately. The maximum time taken is one minute.
2. If Excel 15B fails to read a supported controller name, then its default name and device ID are displayed. For example, if Excel 15B fails to read the name of a Q7300H controller whose device ID is 1234, then it appears as Q7300_NRF_1234. (NRF - Name Read Failed).
3. All the text on Excel 15B pages (field names, button names...) are not completely translated into Deutsch and French. They still appear in English even if your choice of language is Deutsch or French.
4. Excel 15B fails to return from daylight saving time to normal time for European time zones. It is due to the absence of the 'Switching off day light savings' information in the time zone file. So, you have to manually set the normal time for European time zones.
5. If you delete any of the controllers in Excel 15B that are involved in the functioning of DLC service (either as a Pulse Meter input, Load Object, or a Override point object), the DLC configuration is automatically updated and results in the restart of DLC service. Excel 15B immediately sends a restore command to all Excel 10 and Excel 15C objects. It restores all the load assignments from the previous DLC configuration that are currently observing their minimum shed time. The same process is followed when DLC service is disabled.

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