# Honeywell

# Q7055B1047 Excel 5000<sup>TM</sup>Open View Net

# 

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the Instructions Manual, may cause interference with radio communication. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 or FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case, users at their own expense will be required to take whatever measures may be required to correct the interference. Any unauthorized modification of this equipment may result in the revocation of the owner's authority to continue its operation.

# GENERAL

The Q7055B1047 Excel 5000<sup>TM</sup> Open View Net is a Webenabled operator interface that facilitates secure and easy access to a Honeywell building management system through the Internet. It provides a connection of a Honeywell XL5000 controller communication bus to an industry standard TCP/IP Ethernet LAN/WAN, delivering exceptional price/performance to meet the requirements of both building owners and service providers.

With its combination of scalable performance, density and low per-port pricing, the Excel 5000<sup>TM</sup> Open View Net allows network-layer capabilities to be extended to a much wider range of network configurations and environments. Excel 5000<sup>TM</sup> Open View Net supports a full range of BMS features such as commanding of points as well as performing complex functions like alarm and schedule management. Advanced features like graphics and quick access of points give enhanced flexibility and total control when accessing the building management system from a remote location. Customers can now gain the advantages of high-performance network and services.

This guide is intended for Honeywell administrators to install and configure Excel  $5000^{\text{TM}}$  Open View Net as:

# **CONFIGURATION & COMMISSIONING GUIDE**

- A stand-alone Web-based central.
- A point interface to EBI. This requires Excel 5000<sup>TM</sup> Open View Net router to be installed on the EBI machine.

This section also gives you information about the hardware and software requirements to configure and commission the Excel 5000<sup>TM</sup> Open View Net.

The Q7055B1047 Excel  $5000^{\text{TM}}$  Open View Net supports a single RS-485 DC coupled C-Bus compatible communication channel for as many as 6 XL5000 family devices with up to 76.8 kbps and single RS-232 and 10/100BaseT interfaces.

Each Excel 5000<sup>TM</sup> Open View Net is equipped with RJ-45 10/100BaseT connectors, plus an RS-232 interface (see Fig. 1). For UL 864 UUKL listed job sites, the Ethernet segment to which the Excel 5000<sup>TM</sup> Open View Net is connected must be isolated in accordance with the information in form no. 95-7705, Enterprise Buildings Integrator™ (EBI) LAN Interface Installation Instructions.

The Q7055B1047 must be installed according to the instructions in form no. 95-7711, Excel 5000<sup>TM</sup>Open View Net Installation Instructions.



Fig. 1. Excel 5000<sup>™</sup> Open View Net Architecture.



74-4022-1

| Form Number     | Title  |
|-----------------|--|
| Open View Net   | Adapter (OVN):   |
| 74-4021         | Q7055B1047 Excel 5000 <sup>TM</sup> Open View Net Specification Data   |
| 95-7711         | Q7055B1047 Excel 5000 <sup>TM</sup> Open View Net Installation Instructions  |
| 74-4022         | Q7055B1047 Excel 5000 <sup>TM</sup> Open View Net Configuration & Commissioning Guide  |
| 74-4036         | Q7055B1047 Excel 5000 <sup>TM</sup> Open View Net User's Guide   |
| 74-4039         | Q7055B1047 Excel 5000 <sup>TM</sup> Open View Net Software Release Bulletin  |
| Enterprise Buil | ding Integrator™ (EBI) Listed Systems:   |
| 74-3199         | Enterprise Buildings Integrator™ UL Listed System Checkout & Test  |
| 95-7706         | W7063A Enterprise Buildings Integrator™ Workstation Housing Assembly-Listed System Installation<br>Instructions              |
| 95-7638         | XLS LAN Interface 32004871 Series Installation Instructions  |
| 95-7707         | W7064A Enterprise Buildings Integrator™ (14006700-521111) Server Housing Assembly-Listed System<br>Installation Instructions |
| ZD34-001-300    | Enterprise Buildings Integrator™ System Overview Guide   |
| ZD34-002-300    | Enterprise Buildings Integrator™ Installation Guide  |
| ZD34-003-300    | Enterprise Buildings Integrator™ Operator's Guide  |
| ZD34-004-300    | Enterprise Buildings Integrator™ Configuration and Administration Guide  |
| ZD34-012-300    | Enterprise Buildings Integrator™ Building Management Guide   |
| ZP34-001-300    | Enterprise Buildings Integrator™Network Node Interface Reference (NXN)   |
| Controllers:    |  |
| 95-7472         | 14507274 Extended Wiring Base Installation Instructions  |
| 95-7481         | Excel 100, 500, 600 Series and Q7750A Controller Subpanel Installation Instructions  |
| 95-7482         | 14507287 Power Module Installation Instructions  |

## Table 1. Excel 5000 Open View Net System Literature.

# **BEFORE INSTALLATION**

Perform the following steps prior to installing the Excel 5000<sup>TM</sup> Open View Net:

- 1. Verify that the product has been received without damage.
- 2. Verify that the correct Excel 5000<sup>TM</sup> Open View Net has been delivered.
- 3. Check the package contents. The following items are included in each product package:
  Excel 5000<sup>TM</sup> Open View Net.
  Excel 5000<sup>TM</sup> Open View Net Installation

  - Instructions.
  - Package of installation materials as follows:
    - a. One 3-pole Phoenix power connector.
    - b. One 2-pole Phoenix controller bus channel connector.
    - c. Four optional wall mounting clips.
    - d. Four small inserts and four screws.
- 4. Read the Q7055B1047 Excel 5000<sup>TM</sup> Open View Net Specification Data (Form Number 74-4021) carefully prior to connecting power and data interface cables to the Excel 5000<sup>TM</sup> Open View Net.
- 5. Refer to form 95-7705, EBI LAN Interface Installation Instructions for UL listed system requirements which include LAN segment isolation requirements when the Excel 5000<sup>TM</sup> Open View Net is used in UL 864 UUKL listed smoke control applications.

# **Quick Setup**

To set up the OVN properly, the following connections are a prerequisite:

- Null-Modem cable connected to a PC running a VT100 terminal emulation program or a VT100 compatible terminal.
- LAN connection via UTP (RJ-45 connector).
- Power connection.
- Verify the Boot and NML LED activities. During Bootup the Boot LED must be blinking while during Normal operation the NML LED must blink.

When Quick Setup steps are complete, install the Excel 5000<sup>TM</sup> Open View Net at its operating location.

# Field Bus Connection

For connecting the field bus, the 2-pole Phoenix connector (included) is required.

Fig. 2 shows the pin layout of the field bus connector. Pins 1 and 2 should be used to connect the field bus. Observe proper polarity when connecting the field bus.



### Fig. 2. Field bus connection.

# **Bus Termination Switch**

The Bus Termination Switch is used to select field bus terminations on DC coupled RS-485 bus.

The bus terminations are shown on the rear side of the device. See Fig. 3.



Fig. 3. Bus terminations.

# Normal XD505 compatible bus termination for C-Bus connections:

For C-Bus connections, this position must be used when at least one XL MC (part of XL IRC family) is connected to the C-Bus.

#### XD508 compatible; bus termination disabled: XD508 compatible switch position only for C-Buses equipped with Excel 500 family controllers with bus termination disabled. This switch position must be used if the OVN is installed in the middle of the C-Bus.

#### XD508 compatible; bus termination enabled: XD508 compatible switch position only for C-Buses equipped with Excel 500 family controllers with bus termination enabled. This switch position must be used if the OVN is installed at the end of such a C-Bus.

# INTRODUCTION

# **Location of Parts and Controls**







Fig. 5. Excel 5000<sup>™</sup> Open View Net Rear Panel.

Refer to the figures 4 and 5 and the following descriptions for the location and function of parts and controls.

### 1 - RESET

Hardware reset button. Located directly behind the small hole in the front panel. To reach this button, a pointed object like a sharp pen or an unfolded paper clip is necessary. Pressing this button resets the Excel 5000<sup>TM</sup> Open View Net device immediately.

#### 2 - POWER

Power indicator. This LED lights up when power is connected to the Excel  $5000^{TM}$  Open View Net.

#### 3 - C-Bus

C-Bus activity display. This display contains two green LEDs; one showing the Excel  $5000^{\text{TM}}$  Open View Net receive activity (Rx), and the other showing the Excel  $5000^{\text{TM}}$  Open View Net transmit activity (Tx).

#### 4 - LAN

Local Area Network (LAN) activity display. Shows the actual LAN traffic status using three LEDs:

- 10LNK. Ethernet speed of 10 mbps indicator (Green). If this LED is lit, then the Ethernet link is operating at 10 mbps.
- 100LNK. Ethernet speed of 100 mbps indicator (Green). If this LED is lit, then the Ethernet link is operating at 100 mbps.
- Activity. Link activity indicator (Green) will blink if there is any activity (transmission/reception) on the LAN.

#### 5 - AC/DC IN 24V

Power connector for 24 Vac (50 Hz to 60Hz) or 24 Vdc power supplies and chassis ground. Power consumption is 8 VA (connected via 10/100BaseT cable). An external power supply is required.

#### 6 - 10/100BASET

10/100BaseT RJ-45 Ethernet LAN-connector, meets the requirements of ANSI/TIA/EIA 586 Category 5, for unshielded twisted pair connections.

### 7 - RS-232

9-pin SUB-D male RS-232 connector, electrically isolated, PC pin compatible, protected against spikes. This interface is used for initial device setup and requires a standard Null-Modem cable when interfacing to a PC.

#### 8 - C-Bus

2-pin connector for field bus channel 1 connection, electrically isolated, meets EMC and FCC requirements.

#### 9 - C-Bus TERMINATION SWITCH

This switch is used to select field bus termination and biasing.

10 - Heartbeat LEDs

The BOOT and NML LEDs indicate the status of the Excel 5000<sup>TM</sup> Open View Net. The BOOT LED blinks in red color during boot up. The NML LED lights up in green during the normal operation.

# Installing and Configuring Excel 5000<sup>TM</sup> Open View Net

This section explains how to configure and commission the Excel 5000<sup>TM</sup> Open View Net system. Complete the following tasks to configure and commission the Excel 5000<sup>TM</sup> Open View Net:

- Connect the Excel 5000<sup>TM</sup> Open View Net to the LAN and power supply
- Configure the Excel 5000<sup>TM</sup> Open View Net's IP address

# Connecting Excel 5000<sup>TM</sup> Open View Net to Power Supply

To connect the Excel 5000<sup>TM</sup> Open View Net to the power supply, follow the instructions under the Power Connection scetion in the Installation Literature form number 95-7711.



Fig. 6. Excel 5000<sup>TM</sup> Open View Net Rear Panel.

# Connecting Excel 5000<sup>TM</sup> Open View Net To LAN

To complete connecting the Excel 5000<sup>TM</sup> Open View Net to the LAN, connect a 10/100 Ethernet Hub to the Excel 5000<sup>TM</sup> Open View Net with a CAT5 Ethernet cable.

# Configuring Excel 5000<sup>TM</sup> Open View Net's IP Address

#### PRECONFIGURED IP ADDRESS

OVN comes with a pre-assigned IP address as part of factory production. The details are as follows:

- IPAddress:192.168.1.100
- Mask: 255.255.255.0
- Gateway: 192.168.1.1.

You can check this IP address by connecting the PC with a cross-over cable on the same subnet (192.168.1.x).

NOTE: Once the configuration and commissioning of the device is complete, it is recommended to change the device IP address to a value different from the default factory setting. Changing the default IP address will avoid an IP address conflict when a new device is added to the site.

Configure its IP address by following steps mentioned in the following section.

#### SOFTWARE SETUP

After the Excel 5000<sup>TM</sup> Open View Net has been installed (connecting it to a LAN, C-Bus, and power), the software setup must be completed. This process sets the Internet protocol (IP) address and must be completed with a personal computer (PC) connected to the Excel 5000<sup>TM</sup> Open View Net serial port. The name of your computer's serial port (COM1, COM2, and so on) can vary.



# Fig. 7. Connecting PC to Excel 5000<sup>™</sup> Open View Net's Serial Port.

This process requires a PC with HyperTerminal. Most versions of Microsoft Windows have HyperTerminal installed.

Complete the following procedure to configure the IP address for the Excel  $5000^{\text{TM}}$  Open View Net:

- Connect the serial port of the PC to the serial port of the Excel 5000<sup>TM</sup> Open View Net.
  - This requires a 9-pin null-modem cable (not supplied). Look for connector location.
- If the PC does not have a serial port but does have a Universal Service Bus (USB) connection available, it is possible to use a USB - serial adapter to connect to the Excel 5000<sup>TM</sup> Open View Net. Be sure to identify the correct Com port for the USB adapter when configuring the HyperTerminal.
- 2. Launch the HyperTerminal. The HyperTerminal is a program that has been part of Windows since Windows 95. It is loaded into the Accessories folder under communications.
  - Click Start > Programs > Accessories >Communications > HyperTerminal.

| oper Terminal<br>oper Terminal | • | System Tools | ÷ | Microsoft Office<br>Accessify Office<br>Participation State | City | New Office Document             | 1  |
|--------------------------------|---|--------------|---|---|------|---------------------------------|----|
|                                |   |              |   | Internet Explorer     Microsoft Project.                    |      | Set Program Access and Defaults | -  |
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|                                |   |              |   |   |      | Shit Dewn                       | a) |

### Fig. 8. Navigating to the Hyperterminal Screen.

- If HyperTerminal is already installed proceed to step 3.
   If HyperTerminal is not installed use the Microsoft Windows installation disk to install it. (Start > Settings > Control Panel > Add or Remove Programs > Add/ Remove Windows Components).
- 3. The Connection Description dialog-box is displayed. Enter the connection Name (for example: OVNSetup) and click OK.

| Connection Description                              |
|---|
| New Connection                                      |
| Enter a name and choose an icon for the connection: |
| Name:   |
| OVNSetup  |
| lcon:   |
|   |
| OK Cancel   |

### Fig. 9. Entering Connection Name.

The Connect To screen is displayed.

| Connect To        | <u>?</u> ×                              |
|-------------------|---|
|                   | up<br>                                  |
| Enter details for | the phone number that you want to dial: |
| Country/region:   | United States of America (1)            |
| Area code:        | 91                                      |
| Phone number:     |   |
| Connect using:    | СОМ1                                    |
|                   | OK Cancel                               |

Fig. 10. Selecting COM Port.

 Select the COM port for the PC serial port (generally COM1) from the Connect Using list and click OK. The COM# Properties screen is displayed (# is the number of the COM port selected.)

| COM1 Properties |                 |        | <u>?</u> ×  |
|-----------------|-----------------|--------|-------------|
|                 |                 |        |             |
| Bits per s      | econd: 2400     |        | •           |
| Da              | ata bits: 8     |        | •           |
|                 | Parity: None    |        | •           |
| St              | op bits: 1      |        | •           |
| Flow            | control: Hardwa | are    | •           |
|                 |                 | Resto  | re Defaults |
| [               | OK              | Cancel | Apply       |

### Fig. 11. Restoring Defaults.

- 5. Click **Restore Defaults** to restore the original values. The following values are set.
  - Bits per Second: 9600
  - Data Bits: 8
  - Parity: None
  - Stop Bits: 1
  - Flow Control: None
- 6. The new hyperterminal connection is created and the connection screen is displayed.

| in Edit View Call | Transfer Help             |                    |                         |  | A DIX |
|-------------------|---------------------------|--------------------|-------------------------|--|-------|
|                   | 18 8                      |                    |                         |  |       |
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|                   |                           | D Lorenza bi ta di | Elementer El los este a | Contraction in the local distance in the |       |

## Fig. 12. New Hyperterminal Connection Screen.

7. Click File > Properties. The Setup Properties screen is displayed.

| OVNSetup Properties   |
|---|
| Connect To Settings   |
| OVNSetup Change Icon  |
| Country/region: United States of America (1)                    |
| Enter the area code without the long-distance prefix.           |
| Area code: 91   |
| Phone number:   |
| Connect using: COM1   |
| Configure  Use country/region code and area code Redial on busy |
| OK Cancel   |

Fig. 13. Setup Properties Screen.

- 8. Click the **Settings** tab and modify the following properties to the specified values:
  - Backspace Key Sends: Del
  - Emulation: VT100
  - Telnet terminal ID to ANSI
  - Backscrol buffer lines to 500
- NOTE: Do not change the default settings for Terminal Setup..., Input Translation..., or ASCII Setup...

| OVNSetup Properties  |
|--|
| Connect To Settings  |
| Function, arrow, and ctrl keys act as           Image: Terminal keys         Image: Windows keys |
| Backspace key sends     C <u>C</u> trl+H ⓒ <u>D</u> el C Ctrl+ <u>H</u> , Space, Ctrl+H          |
| Emulation:   |
| VT100 Terminal <u>S</u> etup   |
| Auto detect  |
| Viewdata   |
| VT100  |
| VT52   |
| Input Translation ASCII Setup  |
|  |
| OK Cancel  |

#### Fig. 14. Settings Tab.

**9.** Click **OK**. The Connection Name HyperTerminal window is displayed. The status bar at the bottom left of the HyperTerminal will indicate Connected.

Saving the HyperTerminal configuration will eliminate the need to configure the connection each time the Excel 5000<sup>TM</sup> Open View Net is accessed.

- To save the Hyper terminal configuration select File > Save from the HyperTerminal menu bar.
- Subsequent connections can be initiated with Start> Programs > Accessories > Communications> HyperTerminal > Connection Name.

# Excel 5000<sup>™</sup> Open View Net Login Procedure

This section shows prompts in plain text and entries in bold text. The symbol **ENTER MARK** indicates the enter key. The user ID and password are case sensitive.

 After connecting HyperTerminal to the Excel 5000<sup>TM</sup> Open View Net the work area of the HyperTerminal window will be blank. Press the Enter key one or more times to get to the login prompt as shown

| He Edit Vew Cell Transfer Heb   | alBia |
|---|-------|
| ටළ මයි මෙම ස්   |       |
| Honeywell Linux release 1.0 (Good Speed)<br>Kernel 2.4.7-10 on an 1586<br>Jocalhost. localdomain login: _<br>Password:<br>Login incorrect |       |

Fig. 15. Login Prompt.

- 2. <domain name> login: x15root →
- NOTE: During the initial login the domain name is localhost. localdomain. After the initial setup is completed the domain name will be that entered by the user. When the login ID is entered a prompt will appear for the password.
- 3. Password: !x15#root ↓
- NOTE: The cursor will not move and no characters will appear on the screen when typing the password.

The welcome screen appears with the command prompt xl5root as the last line.

NOTE: The login name and Password are case-sensitive.

| e e e e e e e e e e e e e e e e e e e  |  |
|--|--|
| Honeywell Linux release 1.0 (Good Speed)<br>Kernel 2.4.7-10 on an i586   |  |
| localhost.localdomain login:x1Sroot<br>Password:<br>Last login: Tue Jan 1 05:36:12 on ttyS0<br>[k1Sroot@epstest x1Sroot]\$ |  |

Fig. 16. Welcome Screen.

NOTE: If either the login ID or password are incorrect a message, "Login incorrect" appears followed by a prompt to login. To log on to the Excel 5000<sup>TM</sup> Open View Net, repeat steps 2 and 3 above.



Fig. 17. Login Prompt.

- Press Enter once. The login prompt is displayed.
   Type "ConfigureSystem network" at the prompt and
- press Enter.

| 0000000000                            | <u> 여명</u>  |     |
|---------------------------------------|---|-----|
| Honeywell<br>Kernel 2.                | Linux release 1.0 (Good Spee<br>4.7-10 on an i586                 | ed) |
| localhost.<br>Password:<br>Last login | localdomain login: xl5root<br>: Tue Jan 1 05 <u>:36:12 on tiv</u> | 50  |

# Fig. 18. Entering Configuration Details.

6. At the prompt, type "S" if Excel 5000TM Open View Net uses a static IP address or D if it uses dynamic host configuration protocol (DHCP), and press Enter.

| OwnSetup - HyperTerminal   |   |         |
|--|---|---------|
| File Edt View Call Transfer Help   |   |         |
| Dis 03 02 2  |   |         |
| Honeywell Linux re<br>Kernel 2.4.7-10 on   | lease 1.0 (Good Speed)<br>an i586   |         |
| localhost.localdoma<br>Password:<br>Last login: Tue Jan<br>[x15root@epstest x1]<br>Type 's' for Static | in login: x15root<br>1 05:36:12 on ttuS0<br>Sroot1\$ConfigureSystem network<br>or 'd' for DHCP: |         |
| Type 's' for Static  | or 'd' for DHCP:  | Forente |

### Fig. 19. Entering Protocol Details.

Based on the selected option complete one of the following procedures:

- Configuring Excel 5000<sup>TM</sup> Open View Net for static IP address
- Configuring Excel 5000<sup>TM</sup> Open View Net for DHCP

# **Configuring Static IP Address**

Complete the following procedure to configure static IP addresses:

- 1. Type Static IP Address and press Enter. [IP Address:]nnn.nnn.nnn
- 2. Type NetMask details and press Enter. [Netmask:]nnn.nnn.nnn
- **3.** Type Default Gateway IP address details and press Enter.
- [Default Gateway]nnn.nnn.nnn
- 4. Type Primary Domain Name Server and press Enter. [DNS Server]nnn.nnn.nnn

- 5. Type Local Host Name and press Enter. [Local Host Name:]xxxxx
- 6. Type Domain Name and press Enter. [Domain Name]domain.name
- 7. Type WINS IP Address, if required, and press Enter. [WINS Server:]xxxxx
- 8. Type WINS Workgroup, if required, and press Enter. A confirmation message is displayed.

[WINS Workgroup Name:]xxxxx

| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |  |
|--|--|
| Roneywell Linam release 1.0 (Good Speed)<br>Kernel 2.4.7-10 on an 1505   |  |
| localhest.localdomain login: x15root   |  |
| recoverd<br>Last legin: Fri Jul 22 20:00:00 on ttyS0<br>IxlSroot000000c xlSroot1# ConfigureSystem network  |  |
| Top 's' for Static or 'd' for BSP: s<br>IP Adress: 13 15<br>Brank: 25.55.55.65.0<br>Brain Editers: 10.1.1<br>Primer Domain Rear Show (DBS): 199.10.1.1<br>Drimer Domain Rear (DBS): 199.10.1.1<br>Dimension Neur: WWW. Domain.com<br>WHS IP Adress (if any): 199.10.1.4<br>WHS Very Own Show (if any): 090   |  |
| Data is a water of the rest<br>Conception type if the rest<br>Conception is a the rest<br>Barbart 200, 250, 250, 8<br>Metant 200, 250, 250, 8<br>Metant 200, 250, 250, 8<br>Metant to may a share of the<br>conception of the<br>Conception of the rest<br>Metant Note in the<br>Metant Note in the Note in the<br>Metant Note in the Note in the<br>Note in the Note in the Note in the Note in the Note in the<br>Note in the Note |  |
| In this correct (white V   |  |

#### Fig. 20. Configuring Static IP Address.

**9.** Press Y if the data is valid. The system completes the configuration. If the data is invalid, press N. The system exits without completing the configuration.

After completing all the configuration procedures, ensure that you test the setup before using the Excel  $5000^{\text{TM}}$  Open View Net.

# Configuring Excel 5000<sup>™</sup> Open View Net for DHCP

Complete the following procedure to configure Excel 5000<sup>TM</sup> Open View Net for DHCP:

To configure the Excel 5000<sup>TM</sup> Open View Net for Ethernet protocol and DHCP, log on to the Excel 5000<sup>TM</sup> Open View Net as described in the Login Procedure and follow steps 1 through 5.

- 1. At the prompt, type D and press Enter.
- 2. Type the Local Host Name and press Enter. [Localhost Name:]xxxxx
- **3.** Type the WINS IP Address and press Enter. [WINS IP Address:]xxxxx
- **4.** Type the Wins Workgroup Name and press Enter. A confirmation message is displayed.

[WINS Workgroup Name (if any):] xxxxxx

5. Press Y if the data is valid. The system completes the configuration. If the data is invalid, press N. The system exits without completing the configuration.



# Fig. 21. Configuring DHCP.

After completing the configuration procedure, ensure that you verify the setup before using the Excel  $5000^{\text{TM}}$  Open View Net.

# **VERIFYING IP CONFIGURATION**

After configuring the Excel 5000<sup>TM</sup> Open View Net, check the device IP address and network connectivity using the Ping command (if ICMP is enabled on the network).

Complete the following procedure to ping the device:

- 1. Click Start > Run.
- 2. Type "cmd".

**3.** Enter "ping 'local host name'" and press Enter. If the ping is successful, the "Reply from " message is displayed.

If using static IP, enter "ping ' static IP address" and press Enter.

If the ping is successful, the "Reply from " message is displayed.

If the ping is successful, open the browser and type the URL in the following format to access the Excel  $5000^{\rm TM}$  Open View Net.

https://<IP address/Hostname>/Login.nsp

# Installing and Configuring Excel 5000<sup>TM</sup> Open View Net Router

### PREREQUISITES

- Excel 5000<sup>TM</sup> Open View Net Router is compatible with EBI/SymmetrE R300 & above
- Excel 5000 Direct License is required to start the Excel 5000<sup>TM</sup> Open View Net Router
   To run the Excel 5000<sup>TM</sup> Open View Net router on the EBI

To run the Excel 5000<sup>TM</sup> Open View Net router on the EBI (Enterprise Buildings Integrator) PC, you need to complete the following tasks:

- Installing the Excel 5000<sup>TM</sup> Open View Net router.
- Configuring Excel 5000<sup>TM</sup> Open View Net router.

## INSTALLING EXCEL 5000<sup>TM</sup> OPEN VIEW NET ROUTER

To install the Excel 5000<sup>TM</sup> Open View Net router on the PC:

- Insert the Installing Excel 5000<sup>TM</sup> Open View Net Router installation CD. The Installation screen is displayed.
- 2. Select OVN Displays and click Next.
- If you want to store the setup files in the default location C:\Honeywell\Pointserver\XL5OVN directory, click Next. If you want to specify a folder where you want to store the setup files, click Change and choose the folder location.
- 4. Click Next.
- 5. Click Install.

The following executables are installed in the chosen location:

- OVN configuration tool
- OVN Router
- OVN service control

After completing the installation, verify if the required files are copied and proceed with configuring the Excel  $5000^{\text{TM}}$  Open View Net router.

# CONFIGURING EXCEL 5000<sup>™</sup> OPEN VIEW NET ROUTER

After you have installed the Excel 5000<sup>TM</sup> Open View Net router you need to define it to the EBI server.

NOTE: Areas assigned to a point server cannot be used for other points or point servers.

To configure the Excel 5000<sup>TM</sup> Open View Net router:

- On the EBI Station, navigate to Configure > Acronyms
   System. Edit any entry after 1700 rows and add "OVN". OVN name is added in the point server list in the EBI station.
- 2. Navigate to the System Configuration menu display and click Point Servers. The Point Server Configuration Summary is displayed.
- In an empty row, select OVN from the Type list and click the server Alias. The Point Server Configuration display is displayed.
- 4. Configure the point server properties as appropriate:
  - Network Name The point server computer name. The default is localhost. It can also be the network name of a stand-alone point server computer but not an IP address.
  - Alias The name the EBI server uses for the point server.
  - Abbreviation An identifier for the point server, which appears in the alarm and event summaries. The maximum limit is 5 characters.
  - Point Server connected via dual network -Select this checkbox if your system uses dual networks.

 Allow remote servers to query for new points -Select this check-box if you want to enable DSA (Distributed System Architecture) servers to query the point server for new points.

Click the **Area Assignment** link on the Configuration display to assign the required areas to the point server.

| - Tyrten Configuration   |                  |                            |  |  |
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### Fig. 22. Area Configuration Display.

On the Area Configuration display, enter the **Area Name** and **Description**.

NOTE: In this release, the area A1 is hard-coded into the system and as a result you cannot assign another area to the point server. This functionality will be supported in future releases.

Return to point server Configuration display and click the Status tab to check if the point server is communicating with the EBI server

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|  |                                 |              |             |                     |        |            |                    |

Fig. 23. Status Tab of the Configuration Display.

# Excel 5000<sup>™</sup> Open View Net Configuration Tool

This tool is required to add/remove Excel 5000<sup>TM</sup> Open View Net.

₽. 1. Right-click on the system tray and select the Open Configuration Tool option. The Excel 5000 Open View Net Configuration Tool dialog box is displayed.

| Stop XL5000OpenViewNet<br>Start XL5000OpenViewNet |
|---|
| Open Configuration Tool                           |
| Exit  |

# Fig. 24. Open Confguration Tool.

|                    |              | 2000  |
|--------------------|--------------|-------|
|                    |              | Remov |
| Properties         |              |       |
| Server Name OVN248 | 1 20 249     |       |
| Area : A1          | 1 . 20 . 240 |       |
| PointBuild         |              |       |
|                    |              |       |

Fig. 25. Adding a New Excel 5000<sup>TM</sup> Open View Net Server.

- 2. Click Add and select a row to add a new Excel 5000<sup>TM</sup> Open View Net server.
- Enter the following details: 3.
  - Name: The name of the Excel 5000<sup>TM</sup> Open View Net.
  - IP Address: The IP address of the Excel 5000<sup>™</sup> Open View Net. The IP address should be same as that configured through the hyperterminal.
  - Area: The area to which this point server is associated. This area should be the same as the EBI area. Else, the points related to this point server will not be displayed in the EBI station.

NOTE: The Area is selected as A1 by default.

- 4. Click Apply.
  - Restart the router service. To do this:
  - If router is already running, right-click on the system tray and select Stop Excel 5000<sup>™</sup> Open View Net Router. If the router is not running, perfom step 2 when the icon status changes to



Fig. 26. Stopping Excel 5000<sup>™</sup> Open View Net.

Right-click the service control icon on the system tray and select Start XL5000Open View Net.... The router is started and the icon status changes to green.

# Procedure to Download and Update Application Software

Complete the following procedure to update the application software:

- 1. Contact TAC personnel to get relevant upgrade packages.
- Open Internet Explorer and enter the Excel 5000<sup>TM</sup> 2. Open View Net site URL address in the **Address** field. Log on to Excel 5000<sup>TM</sup> Open View Net application.
- 3.
- Click System and select the Maintenance tab. 4
- 5. Enter the name of the Import File (.RPM file) with the full path, or click Browse to select the path.
- Click **Import Package File**. Once the file is uploaded, Excel 5000<sup>TM</sup> Open View Net performs a signature 6. check to see if the package selected is valid. (A package is found to be valid if it has the Honeywell digital signature. Honeywell digital signature affirms that the package has been tested and that the package has not been altered since it was tested.) The package file is imported to the server.
- Click Install to install the package or Cancel to abort the 7. installation. If you select install, the package file is

installed successfully. Refer the Excel 5000<sup>TM</sup> User's Guide, form number 74-4036, for more details.

# Procedure to Install/Upgrade Excel 5000TM Through Hyperterminal

Complete the following procedure to install/upgrade the Excel 5000<sup>TM</sup> Open View Net through the hyperterminal:

- Connect to the OVN Serial port through the hypertermi-1. nal.
- 2. Login: xl5root and press Enter.
- At the prompt, Password: type !xl5#root and press 3. Enter.
- [xl5admin@ovn xl5admin]\$ su and press Enter. 4
- Password: Qw5e@Ret and press Enter. 5.
- 6. Type rpm -e xl5ovn and press Enter.

This step is only to uninstall a previous version of the OVN application. If you are upgrading, this step is not required.

- 7. Type cd /home
- 8. Type ftp ftp-server-ipaddress and press Enter.
- Example: ftp-server-ipaddress = 172.31.1.1

5.

- 9. Login with anonymous and press Enter.
- 10. Press ? for no password.
- **11.** Type passive and press Enter.
- 12. Type bin
- **13.** Type get xl5ovn\_upgrade-3.0-4.i386.rpm and press Enter.
- 14. Type bye and press Enter to close ftp connection.
- **15.** Type rpm –ivh xl5ovn\_upgrade-3.0-4.i386.rpm nodeps and press Enter.

# License Information

The license information displays details of the license installed in the current Excel  $5000^{\text{TM}}$  Open View Net system.

# Installing/Upgrading License

After you have successfully installed the Excel 5000<sup>TM</sup> Open View Net board, you must send the details of your installation to get a license certificate. To install/upgrade a license:

- 1. Get the Voucher ID from Software Distribution Centre by ordering the part number.
- Log on to Excel 5000<sup>TM</sup> Open View Net and click the System link. The General tab is selected by default
- Under License Information, click the ExportHostID File button. A unique HostID File is generated for the current OVN board. The File Download dialog box appears.
- Click Open to generate the Host ID file or Save and specify a location to save the Host ID file or

Cancel to cancel the operation

- NOTE: Make sure the file extension (.hid) is not changed.
  - 5. Zip the Host ID in a file and set the password for the file as password.
  - 6. Attach the zipped file and mail it to License.Server@honeywell.com.
- 7. The **Subject Line** of the mail should read: VOUCHID: Voucher number. Example: VOUCHID: 1234-23445-456778. The License certificate is generated and returned to you by e-mail within one hour.
- On receipt of the mail, unzip the email attachment. The password is password. Extract the license certificate. Make sure that the file extension of the license certificate (.cert) is not changed.
   Log on to Excel 5000<sup>TM</sup> Open View Net and click the
- Log on to Excel 5000<sup>™</sup> Open View Net and click the System link. The General tab is selected by default

- 10. Click Browse and select the downloaded certificate file.
- **11.** Click **Install/Upgrade License** to install the license. The application restarts after the installation is complete.
- NOTE: On successful installation of the certificate, the application will be restarted and will be ready for access after 5 minutes.

# **Terminating License**

To terminate a license:

- **1.** Run the **Terminate License** command from the hyper terminal.
- 2. The Export Terminate Certificate appears under License Information in the General tab of the System link.
- 3. Click **Export Terminate Certificate** to generate the termination certificate file and terminate the license.

# **Transferring License**

To transfer a license:

- 1. Perform steps 1 through 3 as described in the **Terminating License** procedure.
- 2. Zip the Host ID and Termination Certificate in a file and set the password for the file as password.
- 3. Attach the zipped file and mail it to License.Server@honeywell.com.
- The Subject Line of the mail should read: VOUCHID: Voucher number. Example: VOUCHID: 1234-23445-456778. The License certificate is generated and returned to you by e-mail within one hour.
- On receipt of the mail, unzip the email attachment. The password is password. Extract the license certificate. Make sure that the file extension of the license certificate (.cert) is not changed.
- Log on to Excel 5000<sup>TM</sup> Open View Net and click the System link. The General tab is selected by default
- 7. Click **Browse** and select the downloaded certificate file.
- 8. Click **Install/Upgrade License** to install the license. The application restarts after the installation is complete.
- NOTE: On successful installation of the certificate, the application will be restarted and will be ready for access after 5 minutes.

# APPENDIX

# Static or Dynamic Address Option

It is necessary to establish the IP (Internet protocol) address for the Excel 5000<sup>TM</sup> Open View Net. The Excel 5000<sup>TM</sup> Open View Net supports both static and Dynamic Host Configuration Protocol (DHCP) IP addressing. A static IP address is one that is permanently assigned to the Excel 5000<sup>TM</sup> Open View Net. The static address is provided by the Internet service provider or LAN/WAN network administrator and must be established prior to installation of the Excel 5000<sup>TM</sup> Open View Net.

A dynamic IP address is one that is assigned by another network device (DHCP host) and can change based on rules established for the network. The IP address will not be known until the Excel 5000<sup>TM</sup> Open View Net is configured. The IP address will be reported in the "Setup" utility when the setup sequence is completed. Since the IP address is not fixed, it is usually necessary to use a Domain Name Service. See Uniform Resource Locator (URL) below.

# **Uniform Resource Locator (URL)**

A URL is required to address the Excel 5000<sup>TM</sup> Open View Net with Microsoft® Internet Explorer®. In many installations the URL will be routed through a Dynamic Name Service (DNS) to address the Excel 5000<sup>TM</sup> Open View Net. DNS is required for installations using an Ethernet static address. The DNS information for Excel 5000<sup>TM</sup> Open View Net setup data must be obtained prior to setup. This may require obtaining a registered domain name from a domain name registration service. The information should be available from the facility's network administrator and/or ISP. The processes for setting up DNS service varies depending on the ISP, DNS service, and the user's LAN/WAN operating policies and is beyond the scope of this document.

Using a DNS address, the URL is in the form of protocol:// domain.name/resource.

The alternative to DNS addressing is to use the IP address assigned to the Excel 5000<sup>TM</sup> Open View Net. The URL will be in the form of protocol/ipaddress/resource.

Excel 5000<sup>TM</sup> Open View Net URL address where:

- protocol = https
  - Important the protocol must be entered as https. Not entering the protocol correctly will result in an error message "The page cannot be displayed

Internet Explored defaults to the http protocol which will result in the error message.

- ipaddress = the static IP address assigned by the Internet service provider (ISP). network administrator, or the dynamic IP address assigned by the DHCP host.
- domain.name = the domain name assigned by the ISP or network administrator.
  - The domain name must be registered if it is to be used through the Internet.
  - Internet access to an Excel 5000<sup>™</sup> Open View Net installed in a LAN/ WAN must be provided by the network administrator.

- Internet access to an Excel 5000<sup>TM</sup> Open View Net installed in a small network using a Cable / DSL router will require configuring the router DMZ to provide access.
- resource = hostname.htm
  - hostname = the host name for the Excel 5000<sup>TM</sup> Open View Net (host) assigned to the Excel 5000<sup>TM</sup> Open View Net by the installer during configuration.
  - htm is the resource extension and is required with the host name.
  - If a Dynamic Name Server (DNS) is used.

When DNS is used it is possible to include the resource in the domain name so the user does not enter it each time the Excel 5000<sup>TM</sup> Open View Net is accessed saving time and reducing potential typing errors.

The alternative to is to have the user enter the local host name and "htm" (Address = https://<domain.name/<local host name>/html) each time. This increases the security since more information must be entered to reach the Excel 5000<sup>TM</sup> Open View Net.

# **Network Information**

The Excel 5000<sup>TM</sup> Open View Net IP Address, IP Mask, Gateway Address, and Name Server are displayed in the System Display. The items are for reference only and cannot be changed from this screen.

# **Email Server**

The Excel 5000<sup>TM</sup> Open View Net uses email to provide remote annunciation of alarms. The SMTP Email Server entry configures this function. The network administrator or Internet service provider (ISP) will determine if the Excel 5000<sup>TM</sup> Open View Net will be the SMTP server or the alarm e-mail messages will be forwarded to a network or ISP SMPT server.

To use the Excel 5000<sup>TM</sup> Open View Net as the SMTP mail server leave the entry blank. If no entry is made for SMTP Mail Server: The Excel 5000<sup>TM</sup> Open View Net will be the SMTP mail server. In LAN/WAN and small router networks, the network must be configured to use the Excel 5000<sup>TM</sup> Open View Net as an email server.

To forward Excel 5000<sup>TM</sup> Open View Net alarm e-mail message to a network or ISP SMTP server enter the SMTP server address provided by the network administrator or ISP in SMTP Mail Server: The Excel 5000<sup>TM</sup> Open View Net alarm messages will be forwarded to the designated SMTP server.

# Information For Network Administrators

The following information may be required by the network administrator and/or internet service provider (ISP) prior to the installation of the Excel 5000<sup>TM</sup> Open View Net. Copy this page and give it to the network administrator or ISP contact.

# **Ports Used**

The Excel 5000<sup>TM</sup> Open View Net requires the following network ports to be open for access to the Internet:

• Port 80 - HTTP (Hypertext Transfer Protocol)

- Port 443 SSL (Secure Socket Layer)
- Port 25 SMTP (used to send alarm messages) Port 22 SSH (Secure SHell) is required only during the installation/up-gradation.
- Port 23 Telnet (Customized telnet for debugging)

# WARNING

For reasons of security the Secure SHell (SSH) port 22 should not be directly open to the internet except for the time required to complete the remote installation.

Network proxy servers may interfere with network access.

# WINS Support

The Excel 5000TM Open View Net supports Microsoft® Windows® server WINS functions. If WINS is to be used, provide to the installer the Workgroup name and password for the Excel 5000<sup>TM</sup> Open View Net.

# **Connection Protocol and IP Address**

The Excel 5000<sup>TM</sup> Open View Net supports Ethernet protocol and either Static or DHCP IP addressing. Identify the IP addressing type as static or DHCP.

- For static addressing, provide the static IP address.
- For DHCP, the DHCP host will assign the IP address.

# Uniform Resource Locator

Use of a Uniform Resource Locator (URL) for the Excel 5000<sup>TM</sup> Open View Net requires assignment to a domain name service (DNS).

The URL is structured as scheme://hostaddr/Login.nsp

- Scheme = https
- Hostaddr = Assigned by network administrator (IP or Host name)

# DMZ Host Setup

DMZ permits a LAN/WAN computer to be exposed to the Internet so that a user with a valid user ID and password can access the computer (host).

- In a LAN/WAN network, Internet access is controlled by the network administrator.
- In a cable/DSL modem and router network, the DMZ Host function may be part of the router.

In the router DMZ setup procedure, enter the network IP address of the Excel  $5000^{\text{TM}}$  Open View Net as per the router manufacturer's instructions.

# Upgrades and Patches

Future upgrades and patches for the Excel 5000<sup>TM</sup> Open View Net will be made available by download. Specific instructions for downloading and installing upgrades and patches will be communicated as part of the upgrade or patch announcement.

| GLOSSARY   |  | НТТР  | Hyper Text Transfer Protocol   |  |  |
|--|--|-------|--|--|--|
| <b>10/100BaseT</b> 10 or 100 = 10 or 100 Mbps Base = |  | SSL   | Secure Socket layer  |  |  |
| 10/10020301  | baseband,T = twisted pair.                                     | SSH   | Secured Shell  |  |  |
| Application  | Software that aparatas the Eyeal 5000 <sup>TM</sup> Open       | DHCP  | Dynamic Host Configuration Protocol  |  |  |
|  | View Net as required by the Building<br>Management System      | DNS   | DOmain Name Server   |  |  |
| EOLR   | End of Line Resistor   | WINS  | Windows Internet Name Service  |  |  |
| FBI  | Enterorise Buildings Integrator                                | DMZ   | De-militarized Zone  |  |  |
| ETD  | Eile Transfer Protocol   | URL   | Uniform Resource Locator   |  |  |
|  |  | ТСР   | Transmission Control Protocol  |  |  |
| IP   | Internet Protocol  | WAN   | Wide Area Network  |  |  |
| LAN  | Local Area Network   | XD505 | C-Bus piggyback type of Excel 500 controllers.<br>Compatible with EXCEL IRC devices on the |  |  |
| Mbps   | mega bit per second  |       | same bus.  |  |  |
| OVN  | Excel 5000 <sup>™</sup> Open View Net                          | XD508 | C-Bus piggyback type of Excel 500 controllers.<br>This piggyback type allows C-Bus         |  |  |
| C-Bus  | Honeywell Proprietary Bus for Excel 5000 family of controllers |       | This piggyback type allows C-Bus wiring with Excel 500 controllers only.                   |  |  |
| SMTP   | Simple Mail Transfer Protocol                                  |       |  |  |  |
| HTTPS  | Hyper Text Transfer Protocol Secured                           |       |  |  |  |

### **Automation and Control Solutions**

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