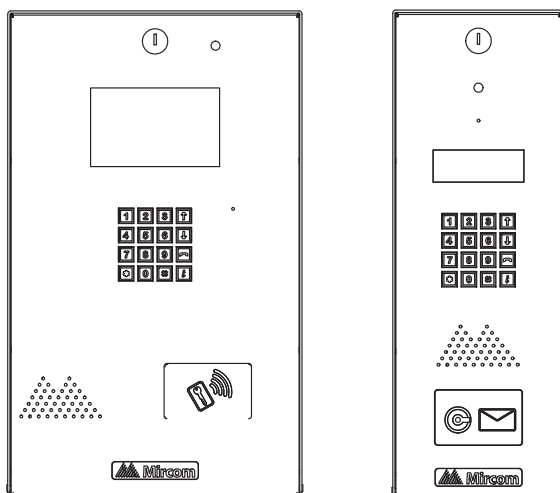




TX3 Series

TELEPHONE ACCESS SYSTEMS



Configurator Quick Start

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Mircom Configurator Software Guide v.3.3

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Introducing the Configurator Software

The Mircom Configurator Software is part of the Mircom suite of products that provide building ready monitoring, control and software management solutions for use in the residential market.

The Configurator is a user friendly graphical application that lets you add and update the tenant registry and setup telephone access. Telephone access can be easily configured as an autodialer controller (ADC) or as a no subscriber line (NSL) system.

Note: **Mircom periodically updates panel firmware and Configurator Software to add features and correct any minor inconsistencies. For information about the latest firmware or software visit the Mircom website at www.mircom.com.**

About This Manual

This manual provides basic information on the use of the Configurator Software for the purposes of adding and updating the tenant profiles.

This guide assumes that all TX3 system components are setup and operational. It is organized so that tasks are performed in the order in which they need to be performed to add a list of residents to a panel.

This manual explains how you:

- connect to the entry panel using a direct USB connection or a remote modem connection.
- access a panel
- add residents to the panel database
- establish telephone access

Additional Documentation

For additional documentation, see the following Mircom literature:

- LT-979 TX3 Telephone Access Programming Manual
- LT-969 TX3 Telephone/Card Access System Installation and Operation Manual
- LT-995 TX3 Configuration and Administration Guide

Installing the Software

This document introduces the system and presents the basic requirements for configuration.

Press F1 at any time when using the software for more detailed information.

To install the Configurator Software

1. Insert the installation CD or USB flash drive into the computer and run setup.exe. The Configurator Server Setup Wizard appears.
2. Follow the instructions. Once installed, the TX3 Configurator icon appears on the desktop.
3. Click the TX3 Configurator icon and wait until the User Login window appears.
4. Enter your password to log in to the system and click OK (The default password is blank). The Main Window appears. You are now ready to begin configuration. To facilitate configuration, the previous session displays whenever you log in.

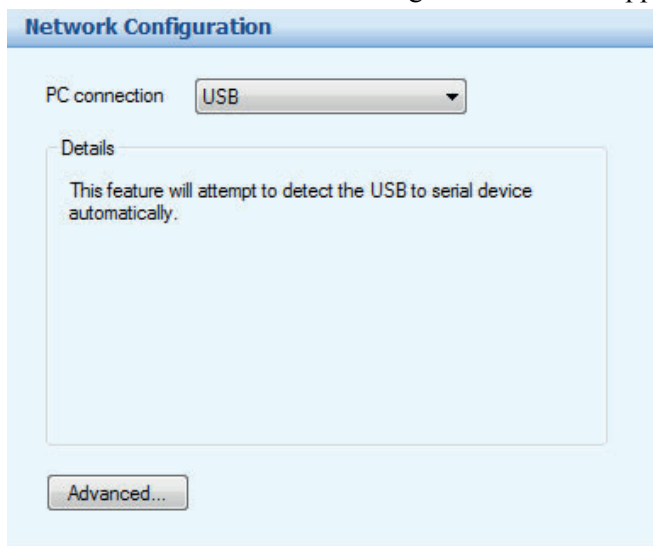
Note: **The panel address (ID) in the software must match the address setting on the panel. Check the SW1 DIP switch settings on the main board of the Telephone Access panel you are connected to (SW2 for Card Access). Refer to the TX3 Installation and Operation Manual for the DIP switch settings.**

Connecting Using the USB

The USB is a direct connection from your computer to the entry panel.

To connect to the USB

1. Connect the USB of your PC to the USB connector on the TX3 Entry Panel board.
2. Click **Network**. The Network Configuration window appears.



3. Select USB from the PC connection list. The connection automatically establishes and no settings are required.
4. Click **Advanced**. The Advanced Network Setup window appears. The settings are the same as in step 6 of "Connecting Using a Modem".
5. Click on the "Connect" icon on the top picture menu to connect. It will give you a connected message in green. If a connection was not made, a red error message displays. Check your panel and network settings if the connection fails.

6. When finished adding, editing and deleting within the job file select the “Send” icon on the top picture menu to send the job to the panels or download the configuration to the entry panel.
7. See Opening and Creating a Job File on page 11.

Connecting Through TCP/IP

If your TX3 system is connected to an ethernet TCP/IP network, you can connect to the system using a TCP/IP connection.

In order for the TX3 system to be connected through TCP/IP, the following ports must be available:

Touch Screens:

- 8080

Non-Touch Screens:

- 14000
- 14001
- 14002
- 14003

If you are having problems communicating through TCP/IP, make sure that no other programs are using ports 8080 or 14000 to 14003.

To establish a TCP/IP connection

1. Connect your PC to the ethernet TCP/IP network.

2. Click **Network**. The Network Configuration window appears.

Network Configuration

PC connection: TCP/IP

Details:

Mask: 255 . 255 . 255 . 0

Gateway IP: 192 . 168 . 1 . 1

New IP Range:

Start: 192 . 168 . 1 . 10

End: 192 . 168 . 1 . 50

Advanced...

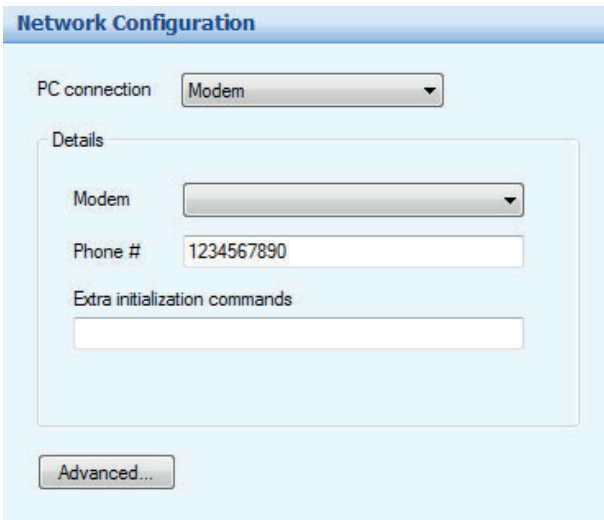
3. Select **TCP/IP** from the PC connection list. The connection automatically establishes and no settings are required.
4. Click **Advanced**. The Advanced Network Setup window appears. The settings are the same as in step 6 of “Connecting Using a Modem”.
5. Click on the “Connect” icon on the top picture menu to connect. It will give you a connected message in green. If a connection was not made, a red error message displays. Check your panel and network settings if the connection fails.
6. When finished adding, editing and deleting within the job file select the “Send” icon on the top picture menu to send the job to the panels or download the configuration to the entry panel.
7. See Opening and Creating a Job File on page 11.

Connecting Using a Modem

The modem on the entry panel lets you establish a connection from your computer to the entry panel using the telephone network.

To establish a modem connection

1. Connect the dedicated telephone line at the Entry Panel to one of the telephone jack connectors on the TX3-MDM Modem board.
2. Connect the modem on your PC to a standard telephone line.
3. Click **Network**. The Network Configuration window appears.
4. Select **Modem** from the PC connection list. The Modem window appears.



The screenshot shows a window titled "Network Configuration". Inside, there is a "PC connection" dropdown menu with "Modem" selected. Below this is a "Details" section containing a "Modem" dropdown menu, a "Phone #" text field with the value "1234567890", and an "Extra initialization commands" text area. At the bottom of the window is an "Advanced..." button.

5. Enter the required parameters as explained below:
Modem. Select a modem currently configured into the PC.

The TX3 system is compatible with:

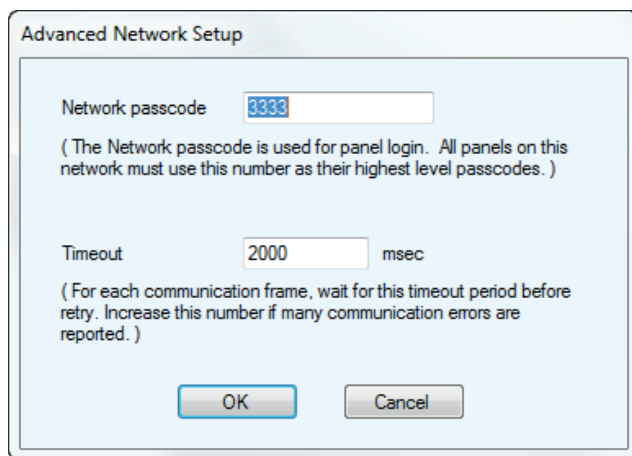
- TrendNet TFM-560U High Speed USB 2.0 Fax Modem
- TrendNet TFM-561U High Speed USB 2.0 Fax Modem

-
- Hiro H50113 56K V.92 USB Fax Modem
 - StarTech USB56KEM2 56k V.92 USB Fax Modem
 - Zoom 56K V.92 56K USB Mini External Fax Modem
 - USRobotics USR5639 56K USB Softmodem

Phone #. Provide a telephone number to dial.

Extra initialization commands. Provide any extra modem initialization commands. The characters "AT" are automatically added before the initialization commands.

6. Click **Advanced**. The Advanced Network Setup window appears.



The image shows a dialog box titled "Advanced Network Setup". It contains two input fields with descriptive text below them. The first field is "Network passcode" with the value "3333" and a note: "(The Network passcode is used for panel login. All panels on this network must use this number as their highest level passcodes.)". The second field is "Timeout" with the value "2000" and the unit "msec", with a note: "(For each communication frame, wait for this timeout period before retry. Increase this number if many communication errors are reported.)". At the bottom are "OK" and "Cancel" buttons.

7. Enter the required parameters as explained below:

Network passcode. The network passcode is used for logging into each panel. All panels on the network must use this passcode as their highest level passcodes.

Timeout. The timeout is the time the software will wait for each panel to respond to a communication command. Increasing this value may help when there are many communication errors.

8. See **Opening and Creating a Job File** on page 11.

Opening and Creating a Job File

A job file lets you access the panel your are currently connected to.

To create a new job

1. Select File/New Job from the menu bar or New from the Tool bar. The Create New Job window appears.

The screenshot shows the 'Create New Job' dialog box. It has a title bar with the text 'Create New Job' and a close button (X). The dialog contains the following fields and controls:

- Job name:** A text input field.
- Created by:** A read-only field displaying 'administrator'.
- Description:** A large text area for entering a description.
- Radio buttons:**
 - ☒ Create from a template
 - ☐ Copy from current job
 - ☐ Create by reading panels on the network
- Template list:** A list box under the 'Create from a template' radio button, containing the following items:
 - Basic TCP Telephone Access System (1 Telephone Master Node)
 - Basic Touch Screen System (1 TX-3 Touch unit)
 - Basic Telephone Access System (1 Lobby unit)
 - Basic Card Access System (1 card panel with 2 readers)
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

2. Enter the required parameters about the job as explained below:

Job name. Enter the job name. This field is mandatory and must be unique.

Description. Provide a description about the job.

Created by. This field is read only and is set to the user when they log in.

Create from a template. Select from an existing template. From this template you may add or modify components.

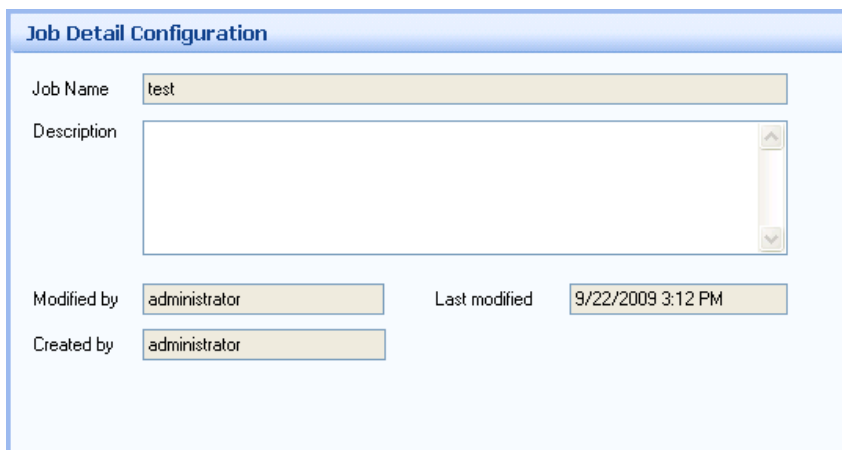
Copy from current job. Select this option to copy information from the current job. From the copy you may add or modify components.

Create by reading panels on the network. Select this option to automatically retrieve information from all of the networked panels and components. To use this option you must be connected to the network.

3. Click OK to create the new job and return to the configuration window, or click Cancel to exit without saving the changes.

To provide details about job modifications

1. Select a Job from the left side panel. The Job Detail Configuration window appears on the right side panel.

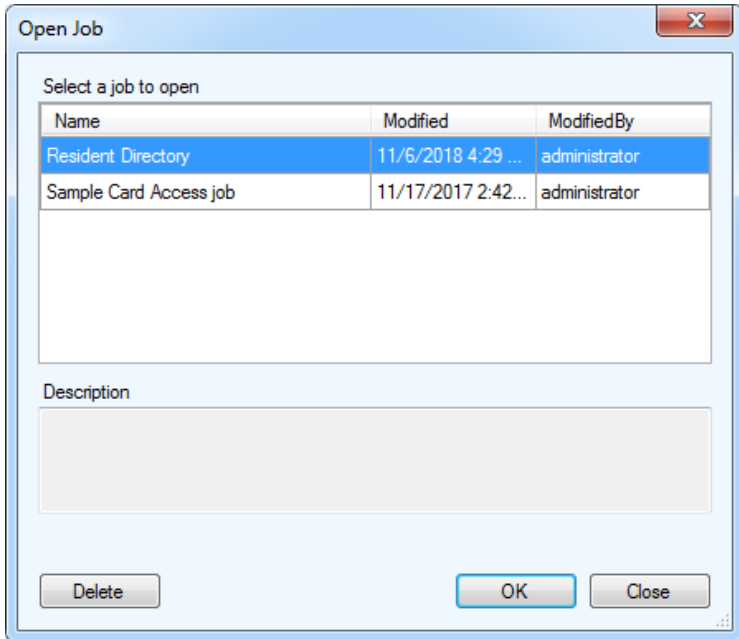


The screenshot shows a window titled "Job Detail Configuration". It contains several input fields: "Job Name" with the value "test", "Description" with a large empty text area and a vertical scrollbar, "Modified by" with the value "administrator", "Last modified" with the value "9/22/2009 3:12 PM", and "Created by" with the value "administrator".

2. Provide a description about the job in the Description text area and proceed with the rest of the configuration.

To open an existing job

1. To open an existing job, select File/Open Job from the Menu Bar. The Open Job window appears.



2. Select a job and click OK, or click Close to exit without saving the changes.

To delete an existing job

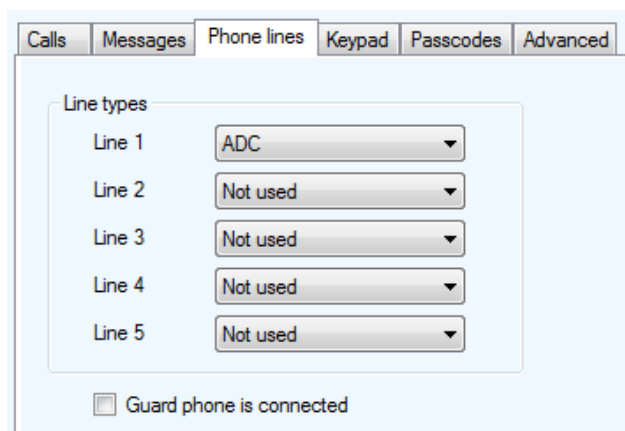
1. To delete a job permanently from the database, select the job from the list and click Delete. A confirmation window appears.
2. Click Yes to confirm the deletion or No to exit and return to the previous window.

Configuring Phone Lines

Lobby Control Units, such as the TX3 Telephone Access and Touch Screen systems, can call resident using either ADC or NSL telephone lines. Up to five lines may be configured.

To configure phone lines

1. From the **Network** tree, select one of your Lobby Control Unit (that is, either a telephone access panel or a touch screen panel).
2. Select **Phone Lines** from the Panel Configuration window. The **Phone lines** window appears.



The screenshot shows a software window titled "Phone lines" with several tabs: "Calls", "Messages", "Phone lines" (selected), "Keypad", "Passcodes", and "Advanced". Inside the "Phone lines" tab, there is a section labeled "Line types" containing five rows, each with a line number and a dropdown menu. Line 1 is set to "ADC", while Lines 2 through 5 are set to "Not used". Below this section is a checkbox labeled "Guard phone is connected", which is currently unchecked.

Line	Type
Line 1	ADC
Line 2	Not used
Line 3	Not used
Line 4	Not used
Line 5	Not used

☐ Guard phone is connected

3. Provide information for each the following:
Phone lines. Select either ADC or NSL.
Phone lines/Guard phone is connected. Select this check box if a guard phone unit is currently connected to this panel.
4. Proceed with **Creating a Resident Database** on page 15.

Creating a Resident Database

The Configurator lets you add residents and modify resident information. When adding a resident you must define their line type as ADC or NSL.

To add residents

1. Select `Residents` from the `Job` tree.
2. Select `Add Res` from the Menu Bar or right click on the list view and then select `Add Residents`. The `Add Residents` window appears.

Add Residents

Total number of residents to add: 1

Connect to panel: Panel1 (Lobby)

Panel phone line: Line 1(ADC)

Auto Default Values

The following fields will be set automatically based on their starting values:

Resident name: NewName

Dial code: 1

Keyless entry Code: 0

Relay code (NSL only): 1

OK Close

3. Provide information for the following parameters:

Total number of residents to add. Specify the total number of residents to add.

Connect to panel. Select the panel to add residents to.

Panel phone line. Select the phone line on the panel the resident(s) will use.

Note: **Ensure that the panel phone line is specified. If the phone line is not specified, the resident will not be added to the panel.**

Resident name. Provide the resident name. If more than one resident is added at a time, a number will be attached to the names to make them unique.

Dial code. The dial code is set automatically for each resident based on the initial starting value.

Keyless entry code. Enter zero to disable the keyless entry code for the new resident(s). Enter a value other than zero to enable the keyless entry code for the new resident(s). If enabled, each resident added gets a unique keyless entry code starting from the value provided and then incrementing by one for each additional resident.

Relay code (NSL only). The NSL relay code is set automatically for each resident based on the initial starting value.

4. Click OK to add a resident and return to the configuration window, or click close to exit without saving the changes.
5. If multiple residents were added, edit each resident for specific details.

To edit a resident's information

1. Select **Residents** from the Job tree. The Resident Configuration window appears.

Note: **You can edit multiple residents at the same time by selecting multiple residents then launching the Resident Details dialog. Some options may be disabled if their values are resident specific.**

- To edit a resident's information, click its row header on the far left or double click elsewhere on the row. You may also right click and select **Edit Resident**. The Resident Details window appears.

Resident Details

Name:

Apt#:

Dial code: ☐ Hide this resident in directory

Phone lines | Entry | VOIP | Elevator | Profile

Select lobby line(s) to connect to this resident:

Lobby Unit	Phone Line
Panel2 (Lobby)	Line 1

Phone number:

Relay code:

Ring pattern:

OK Cancel

- Provide the following information:

Name. Enter the resident's name.

Dial code. Enter the resident's dial code.

Apt#. Enter the apartment or suite number.

Hide from directory. Check this box to hide the resident's name from the panel directory.

- Select **Phone lines** and provide the following information to determine which panels will have telephone access:

Lobby Unit. Each lobby unit is shown in a list.

Phone Line. From the list select the telephone line for each lobby unit (NSL, ADC or not connected).

Phone number. Provide the resident's phone number. This selection is available for ADC lines only.

Relay code. Enter the NSL unit relay code associated with the resident. This selection is available for NSL lines only.

Ring pattern. Select the resident's phone ring pattern from the list. Each panel may have its own unique ring. This selection is available for NSL lines only.

Note: **If the telephone entry ADC system is calling to a PBX system, input the telephone number followed by a comma (for a one second pause) and then the extension. If you need to dial 9 to obtain an outside line simply input it before the telephone number. If you are connected directly to a PBX system with a loop-start feature and you need to dial 9 to get an outside line, input 9 followed by two commas and then the number.**

5. Select **Entry**. The Entry window appears.

Resident Details

Name:

Apt#:

Dial code: ☐ Hide this resident in directory

Phone lines | **Entry** | VOIP | Elevator | Profile

Keyless Entry

Keyless entry code:

☒ Open Main door

☒ Open Aux door

Secure Phone Entry
(This overrides the general Resident Phone Keypad options)

Open main door by pressing: #

Open Aux door by pressing: #

OK Cancel

6. Provide the following information to enable the use of resident keyless entry code:

Keyless entry code. Enter the resident keyless entry code using a number from 1 to 999999.

Open Main door. Selecting this box opens the main door when the resident enters their keyless entry code.

Open Aux door. Selecting this box opens the auxiliary door when the resident enters their keyless entry code.

Note: By default both the main and auxiliary doors are selected.

Note: An external power supply is required to operate the door strikes. For more information, see LT-969.

Open main door by pressing. Enter a series of up to 4 digits from 0 to 9 followed by pound (#). This code replaces the Main Door keypad button for opening the main door. This applies to the specific resident.

Note: **Do not select 4 (this is used to refuse entry or disconnect).**

Do not use the same number for the main door, auxiliary door, and call waiting (call waiting works on NSL systems only).

If the Telephone Access System Panel has controller board model MD-1245, do not select 1, 7, or *.

Open aux door by pressing. Enter a series of up to 4 digits from 0 to 9 followed by pound (#). This code will replaces the Auxiliary Door keypad button for opening the auxiliary door. This applies to the specific resident.

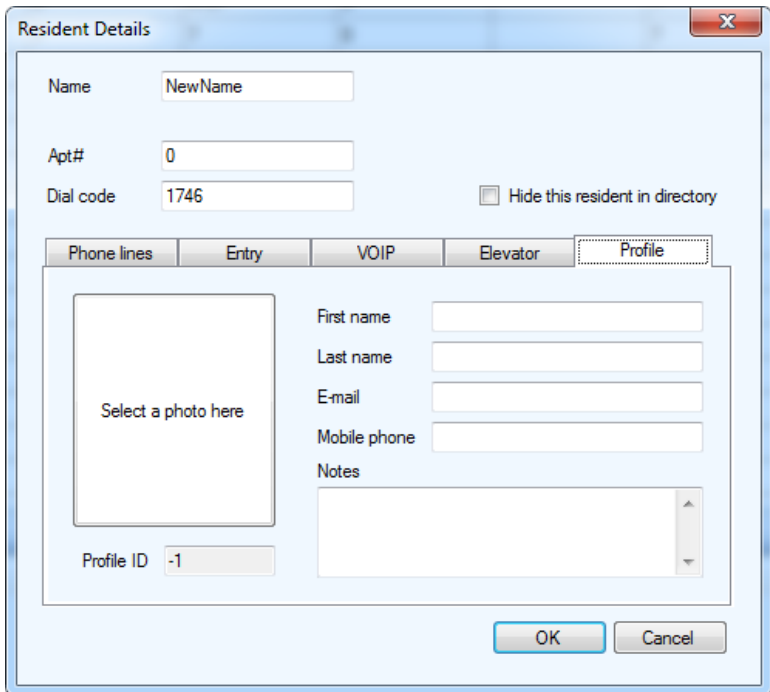
Note: **Do not select 4 (this is used to refuse entry or disconnect).**

Do not use the same number for the main door, auxiliary door, and call waiting (call waiting works on NSL systems only).

If the Telephone Access System Panel has controller board model MD-1245, do not select 1, 7, or *.

7. Select **Elevator**. See LT-995 TX3 Touch Screen Configuration and Administration Manual for instructions on elevator configuration.

8. Select **Profile**. The Profile window appears.



The image shows a software window titled "Resident Details" with a close button (X) in the top right corner. The window contains several input fields and a tabbed interface. At the top, there are fields for "Name" (containing "NewName"), "Apt#" (containing "0"), and "Dial code" (containing "1746"). To the right of the "Dial code" field is a checkbox labeled "Hide this resident in directory". Below these fields is a tabbed interface with five tabs: "Phone lines", "Entry", "VOIP", "Elevator", and "Profile". The "Profile" tab is currently selected. Inside the "Profile" tab, there is a large rectangular area on the left with the text "Select a photo here". To the right of this area are input fields for "First name", "Last name", "E-mail", and "Mobile phone". Below these fields is a "Notes" section with a text area and a vertical scrollbar. At the bottom left of the "Profile" tab is a "Profile ID" field containing "-1". At the bottom right of the window are "OK" and "Cancel" buttons.

9. Provide the following information:
- Select a photo.** Select the resident's photo from a directory.
 - First name.** Enter the resident's first name.
 - Last name.** Enter the resident's last name.
 - E-mail.** Enter the resident's email.
 - Mobile phone.** Enter the resident's mobile phone number.
 - Notes.** Provide additional notes.
 - Profile ID.** Provide a profile ID.
10. Click OK to add a resident and return to the configuration window, or click cancel to exit without saving the changes.

To delete one or more residents

1. Right click one or more residents and then select **Delete**. Pressing **Del** key will achieve the same purpose.
2. Click **Yes** to delete a resident and return to the configuration window, or click **No** to exit without saving the changes.

To find a resident

1. Enter the person's name in the **Find** box. The list automatically refreshes as you type. To refine the search, select a parameter from the column list.
2. Press the **Clear** button to restore the list back to its full state.

Sending a Job

Once panel connectivity is established, you can send the current job configuration to the panel.

To send to a single panel

1. Right click on a panel in the job tree and select **Send to Single Panel**.

To send to all panels

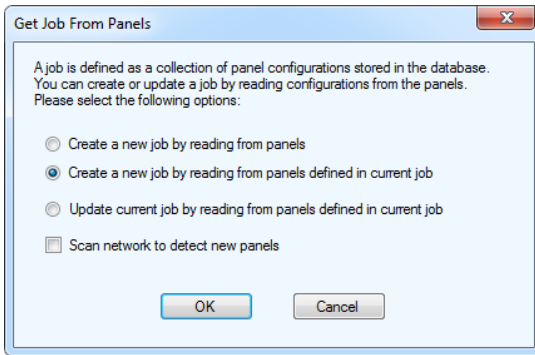
1. Click **Send** from the **Menu Bar**.

Getting a Job

A Job can be created by reading the configuration information from the panel.

To get a job

1. Select **Get** from the Tool Bar. The Get Job from Panels window appears.



2. Select the required parameters as explained below:

Create a new job by reading from panels. Scans the network for panels and uses their configuration information to create a new job. The Detect new panels check box is automatically checked.

Create a new job by reading from panels defined in current job. Copies the current job and creates a new job based on the existing job.

Update current job by reading from panels defined in current job. The most recent configuration overwrites the existing information panel information.

Scan network to detect new panels. If selected the software scans the network for any new panels and reads their configurations.

3. Click **OK** to create a job and return to the configuration window, or click **Cancel** to exit without saving the changes.

Troubleshooting

Unable to connect to USB device. Please unplug and plug in the USB cable again

Common causes: Users unplug the USB cable when the PC is still communicating with the panel or the USB driver is not installed properly.

Solution: Unplug and then plug in the USB cable again. If not working, restart the application. If still not working, re-install the application.

Panel xxxxxxxx (address x) is a wrong controller type

Common causes: The panel type or model the user is trying to connect to is different from the configuration.

Solution: Check the actual model of the panel (e.g. TX3-2000-8 8x20 LCD). Delete the incorrect panel item from the configurator tree then add the correct panel item. The controller type depends on display type and the name capacity of the panel.

Panel xxxxxxxx (address) not responding

Common causes: Incorrect address DIP switch setting on the panel's main board.

Solution: Check the DIP switches address setting of all panels and set them correctly. Make sure the addresses match the addresses on the configurator tree. Try to connect again.

Resident data does not get programmed to the panel even after the job is sent.

Common causes: No panel phone line is assigned to the resident.

Solution: Edit resident details. Under "Select lobby line(s) to connect to this resident", select a phone line on the drop down list.

Cannot communicate with a TX3 system using a TCP/IP connection.

Common causes: Another program is using the same ports that the TX3 system needs to communicate.

Solutions: Find the program that is using TCP/IP ports 14000, 14001, 14002, and 14003 and then reconfigure it to use different ports. The TX3 system must use ports 14000-14003.

Warranty and Warning Information

WARNING!

Please read this document **CAREFULLY**, as it contains important warnings, life-safety, and practical information about all products manufactured by the Mircom Group of Companies, including Mircom and Secutron branded products, which shall include without limitation all fire alarm, nurse call, building automation and access control and card access products (hereinafter individually or collectively, as applicable, referred to as “**Mircom System**”).

NOTE TO ALL READERS:

1. **Nature of Warnings.** The within warnings are communicated to the reader out of an abundance of caution and create no legal obligation for Mircom Group of Companies, whatsoever. Without limiting the generality of the foregoing, this document shall NOT be construed as in any way altering the rights and obligations of the parties, governed by the legal documents that apply in any given circumstance.
2. **Application.** The warnings contained in this document apply to all Mircom System and shall be read in conjunction with:
 - a. the product manual for the specific Mircom System that applies in given circumstances;
 - b. legal documents that apply to the purchase and sale of a Mircom System, which may include the company’s standard terms and conditions and warranty statements;
 - c. other information about the Mircom System or the parties’ rights and obligations as may be application to a given circumstance.
4. **Security and Insurance.** Regardless of its capabilities, no Mircom System is a substitute for property or life insurance. Nor is the system a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency

situation. Building automation systems produced by the Mircom Group of Companies are not to be used as a fire, alarm, or life-safety system.

NOTE TO INSTALLERS:

All Mircom Systems have been carefully designed to be as effective as possible. However, there are circumstances where they may not provide protection. Some reasons for system failure include the following. As the only individual in contact with system users, please bring each item in this warning to the attention of the users of this Mircom System. Failure to properly inform system end-users of the circumstances in which the system might fail may result in over-reliance upon the system. As a result, it is imperative that you properly inform each customer for whom you install the system of the possible forms of failure:

5. **Inadequate Installation.** All Mircom Systems must be installed in accordance with all the applicable codes and standards in order to provide adequate protection. National standards require an inspection and approval to be conducted by the local authority having jurisdiction following the initial installation of the system and following any changes to the system. Such inspections ensure installation has been carried out properly.
6. **Inadequate Testing.** Most problems that would prevent an alarm a Mircom System from operating as intended can be discovered by regular testing and maintenance. The complete system should be tested by the local authority having jurisdiction immediately after a fire, storm, earthquake, accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

NOTE TO USERS:

All Mircom Systems have been carefully designed to be as effective as possible. However, there are circumstances where they may not provide protection. Some reasons for system failure include the following. The end user can minimize the occurrence of any of the following by proper training, testing and maintenance of the Mircom Systems:

7. **Inadequate Testing and Maintenance.** It is imperative that the systems be periodically tested and subjected to preventative maintenance. Best practices and local authority having jurisdiction determine the frequency and type of testing that is required at a minimum. Mircom System may not function properly, and the occurrence of other system failures identified below may not be minimized, if the periodic testing and maintenance of Mircom Systems is not completed with diligence and as required.
8. **Improper Operation.** It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm. A Mircom System may not function as intended during an emergency situation where the user is unable to operate a panic or emergency switch by reason of permanent or temporary physical disability, inability to reach the device in time, unfamiliarity with the correct operation, or related circumstances.
9. **Insufficient Time.** There may be circumstances when a Mircom System will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time enough to protect the occupants or their belongings.
10. **Carelessness or Safety Hazards.** Moreover, smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits or children playing with matches or arson.
11. **Power Failure.** Some Mircom System components require adequate electrical power supply to operate. Examples include: smoke detectors, beacons, HVAC, and lighting controllers. If a device operates only by AC power, any interruption, however brief, will

render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage Mircom Systems or other electronic equipment. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

12. **Battery Failure.** If the Mircom System or any device connected to the system operates from batteries it is possible for the batteries to fail. Even if the batteries have not failed, they must be fully charged, in good condition, and installed correctly. Some Mircom Systems use replaceable batteries, which have a limited life-span. The expected battery life is variable and in part dependent on the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. Moreover, some Mircom Systems do not have a battery monitor that would alert the user in the event that the battery is nearing its end of life. Regular testing and replacements are vital for ensuring that the batteries function as expected, whether or not a device has a low-battery monitor.
13. **Physical Obstructions.** Motion sensors that are part of a Mircom System must be kept clear of any obstacles which impede the sensors' ability to detect movement. Signals being communicated by a Mircom System may not reach the receiver if an item (such as metal, water, or concrete) is placed on or near the radio path. Deliberate jamming or other inadvertent radio signal interference can also negatively affect system operation.
14. **Wireless Devices Placement Proximity.** Moreover all wireless devices must be a minimum and maximum distance away from large metal objects, such as refrigerators. You are required to consult the specific Mircom System manual and application guide for any maximum distances required between devices and suggested placement of wireless devices for optimal functioning.
15. **Failure to Trigger Sensors.** Moreover, Mircom Systems may fail to operate as intended if motion, heat, or smoke sensors are not triggered.
 - a. Sensors in a fire system may fail to be triggered when the fire is in a chimney, walls, roof, or on the other side of closed doors. Smoke and heat detectors may not detect smoke or

heat from fires on another level of the residence or building. In this situation the control panel may not alert occupants of a fire.

- b. Sensors in a nurse call system may fail to be triggered when movement is occurring outside of the motion sensors' range. For example, if movement is occurring on the other side of closed doors or on another level of the residence or building the motion detector may not be triggered. In this situation the central controller may not register an alarm signal.

- 3. **Interference with Audible Notification Appliances.** Audible notification appliances may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners, appliances, or passing traffic. Audible notification appliances, however loud, may not be heard by a hearing-impaired person.
- 4. **Other Impairments.** Alarm notification appliances such as sirens, bells, horns, or strobes may not warn or waken a sleeping occupant if there is an intervening wall or door. It is less likely that the occupants will be alerted or awakened when notification appliances are located on a different level of the residence or premise.
- 5. **Software Malfunction.** Most Mircom Systems contain software. No warranties are provided as to the software components of any products or stand-alone software products within a Mircom System. For a full statement of the warranties and exclusions and limitations of liability please refer to the company's standard Terms and Conditions and Warranties.
- 6. **Telephone Lines Malfunction.** Telephone service can cause system failure where telephone lines are relied upon by a Mircom System. Alarms and information coming from a Mircom System may not be transmitted if a phone line is out of service or busy for a certain period of time. Alarms and information may not be transmitted where telephone lines have been compromised by criminal tampering, local construction, storms or earthquakes.
- 7. **Component Failure.** Although every effort has been made to make this Mircom System as reliable as possible, the system may fail to function as intended due to the failure of a component.

8. **Integrated Products.** Mircom System might not function as intended if it is connected to a non-Mircom product or to a Mircom product that is deemed non-compatible with a particular Mircom System. A list of compatible products can be requested and obtained.

Warranty

Purchase of all Mircom products is governed by:

<https://www.mircom.com/product-warranty>

<https://www.mircom.com/purchase-terms-and-conditions>

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