QUARTET TECHNOLOGY, INC.
Independence Through Voice & Switch Control

QIC^{TM}

Quartet Insteon® Controller
Operation Manual

1934 Lakeview Avenue, Dracut, MA 01826, USA
Phone (978) 957-4ECU Fax (978) 957-8366

http://www.qtiusa.com

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Manual Description

Audience

This manual is for users who wish to add Insteon capability to their Simplicity environmental control units.

Purpose

The purpose of this manual is to provide:

- An introduction to the QIC

- Features of the QIC

- Installing the QIC software

- Connecting the QIC to a Simplicity ECU

- Mapping Insteon devices

- Instruction for operation

Intended Use

The intended function of the QIC is to provide legacy Quartet Simplicity ECUs a means for controlling Insteon compatible devices.

Caution

The QIC is not intended for controlling life support equipment.

Table of Contents

Manual Description *(cont.)*

Manual Description *(cont.)*

Manual Description (cont.)

Chapter1: Introduction

Overview

Introduction

Before you learn how to use your Quartet Insteon Controller (QIC), take a moment to review its components. This chapter describes each component and its function.

Cleaning procedures and maintenance requirements are also described.

Features

- Directly compatible with Simplicity ECU's
- Two ways to configure:
    - o ECU attendant switch
    - o Computer USB port
- Stores all configuration data
- Link indicator
- Power indicator
- Operates Insteon type devices such as:
    - o Lamp, Appliance, I/O Link and Thermostats
- Backward compatible with all X-10 type modules.

Objectives

In this chapter you will learn about:

- QIC components
- System Unit Components
- Safety Symbols
- Regulatory Approvals
- Specifications
- Cleaning and maintenance
- Accessories and parts

Caution

The QIC is a high quality device. Care should be taken not to drop or otherwise subject it to extreme force.

QIC Components

Components

The following components comprise the QIC:

Descriptions

Each component is described below:

Letter	*Component*	*Function*
A	QIC Controller	Converts Simplicity messages to Insteon signals
B	Power Supply	Supplies power for the QIC
C	Insteon Modem	Transmits Insteon signals (***not included***)
D	Modem Interface Cable	Connects the Insteon modem to the QIC
E	ECU Interface Cable	Connects the QIC to the Simplicity ECU

System Unit Components

QIC Right Side View

Below is a picture of the right end panel on the QIC:
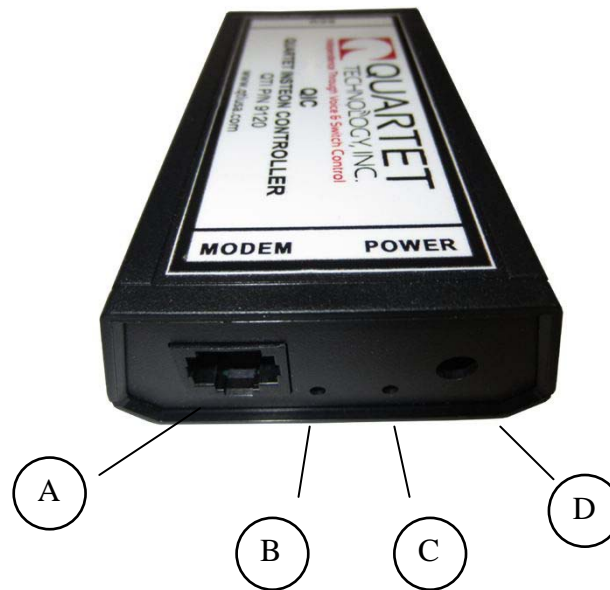
QIC Right Side Components

The following components are on the right side of the QIC:

Letter	Component	Function
A	Insteon modem interface	Transmits signals to the Insteon modem
B	Link light	Orange LED will light when there is a link to the Insteon modem.
C	Power light	Green LED will light when there is power to the QIC
D	Power	Power connector. Connect the power supply here.

System Unit Components *(cont)*

QIC Left Side View

Below is a picture of the left end panel on the QIC:
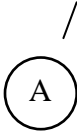
QIC Left Side Components

The following components are on the left side of the QIC:

Letter	*Component*	*Function*
A	Simplicity ECU interface	Transmits and receives messages from the Simplicity ECU

Approvals

Safety Approvals

The power supply meets the following safety approvals:

- cUL/UL
- TUV
- SAA
- CE
- C-Tick
- Ecodesign ErP Directive 2009/125/EC

Emissions

The power supply meets the following emissions:

- FCC Class B
- EN55022 Class B
- AS/NZS 3548

Immunity

The power supply meets the following immunity standards:

- EN50082-1
- EN61000-4-4 (Level 4)
- EN61000-4-5 (Level 3)

Specifications

Acceptable Input Voltage	110-240VAC, 60Hz, Single Phase
Input Over Current Protection	Not to exceed 1.2A (RMS)
Output Voltage	+5V
Max. Output Current	1A
Operating Temperature	32°F to 104°F (0 to 40°C)
Storage Temperature	5°F to 113°F (-15°C to 45°C)
Operating and Storage Relative Humidity	10% to 95%
Size (H x W x D)	1.17" x 1.77" x 2.82" (29.79 x 45 x 71.7 cm)
Weight	4.2oz (120g)

Notes:

This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

This equipment should be protected against ordinary ingress of water

Cleaning and Maintenance

Cleaning

You can clean the outside of the QIC with a slightly damp cloth, when necessary. Use water only.

Maintenance

The QIC unit requires no special cleaning or daily maintenance.

You should annually check cables for safety and integrity. Contact your authorized Quartet distributor for necessary repairs or replacements.

Accessories/Parts

Replacement Parts

A complete line of replacement parts and accessories are available:

Accessory	QTI P/N	Description
QIC Controller	9120	Converts Simplicity signals to Insteon signals
Power Supply	9005	Plug-in power supply for QIC
Insteon Modem	9328	Insteon Modem #2413S
Modem Interface Cable	9296	Insteon modem to the QIC cable
ECU Interface Cable	9954	QIC to the Simplicity ECU cable
QIC Operation Manual	5154	Operation Manual
USB-Serial Converter	9329	Allows PC USB port to communicate to the QIC
Null Modem Cable	9330	Connects the USB-Serial converter to the Simplicity ECU

Contact Quartet Technology or your authorized distributor for more information.

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Chapter 2: Connecting Components

Overview

Introduction

The QIC transmits and receives signals from the Simplicity™Environmental Control Unit (ECU) and translates them to Insteon commands.

Before you can use the QIC, you must connect the system components.

Objectives

In this chapter, you learn how to:

- Connect the QIC to a Simplicity ECU

- Observe LED indicators

Connecting System Components

System Connection Overview

Below is a picture of the complete connection between QIC and a Simplicity EUCs:

Connecting System Components *(cont.)*

Procedure

Follow these steps to connect the QIC:

1. Attach the "*ECU Interface Cable*":

   - One end to the QIC controller.

   - One end to the serial port on the Simplicity ECU.

Connecting System Components *(cont.)*

2. Attach the "*Modem Interface Cable*":

    - One end to the QIC controller.

    - One end to the Insteon modem

3. Plug the "***Insteon modem***" into an AC wall outlet.

4. Plug the barrel connector on the "***Power Supply***" into the QIC.

Quartet Insteon Controller

Connecting System Components (cont.)

5. Plug the "*Power Supply*" into an AC wall outlet.

Indicators

If everything is connected properly, the following indicators on the QIC should be illuminated:

- Green Power indicator
- Orange Link indicator

Note

The orange Link indicator will ***blink*** if the Insteon modem is not connected.

The orange Link indicator will be ***on*** when the Insteon modem is detected.

If the orange Link indicator is blinking, recheck the "Modem Interface Cable" connection and power cycle the QIC controller by unplugging and then plugging in the power cord.

If the cable connection appears OK, be sure you are using an Insteon modem Model # 2413S.

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Chapter 3: Linking Insteon Modules

Overview

Introduction

Insteon modules work by "*linking*" them to the Insteon modem. Each module ***must*** be linked to the Insteon modem for proper operation.

Modules should be linked before configuring the QIC.

Objectives

In this chapter you will learn about:

- Linking modules to the Insteon modem
- Un-linking modules from the Insteon modem

Linking Insteon Modules

Procedure

Follow this procedure for <u>every</u> module you wish to link to the Insteon modem:

1. Plug the Insteon modem into an AC outlet.

2. Plug the module you wish to link into an AC outlet.

3. Press and hold the "Set" button on the Insteon <u>modem</u> until its LED begins to flash (about 3 seconds).

4. Press and hold the "Set" button on the module you wish to link until its LED flashes once (about 3 seconds).

5. Both devices are now "linked" to each other.

6. To add additional modules, repeat steps 2 thru 4 again.

Note

Most Insteon modules will link as described in the procedure above. However, future modules may not. Always check the product sheet provided with each module.

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Chapter 4: QIC Programming

Overview

Introduction

The QIC must be programmed to identify which <u>number</u> in the Light and/or Appliance menu(s) in the ECU will be identified with a particular Insteon device.

In effect, the QIC must know what ECU menu numbers will be associated to an Insteon device.

There are <u>two</u> ways to program the QIC:

1. Using a computer

2. Using the ECU

Objectives

In this chapter you will learn about:

*   Steps needed to program the QIC using a computer
*   Steps needed to program the QIC using the ECU

Note

Both methods accomplish the same thing. Using a computer is recommended because it is faster. However, terminal software must be installed on the computer to access this mode.

Using the environmental control unit (ECU) is a slower method, but has the advantages of not needing a computer or installing software.

Programming Methods

Computer Method

Follow this procedure to program the QIC using a computer:

Procedure

1. Link all Insteon devices to the Insteon modem as detailed in Chapter 3.

2. Connect the QIC and install the Terminal Software as described in Chapter 5

3. Use the commands as outlined in Chapter 6 to program the QIC.

ECU Method

Follow this procedure to program the QIC using the ECU:

Procedure

1. Link all Insteon devices to the Insteon modem as detailed in Chapter 3.

2. Connect the QIC to the ECU as detailed in Chapter 2

3. Use the method as outlined in Chapter 7 to program the QIC.

Note

Regardless of which method is used, you *must* set the ECU to QIC mode. This is accomplished by the following:

"(The Name)" – "Utility" – "Keyboard" – "One" – "Five"

Say/Select "**One**" for X-10 mode only, or "**Two**" for Insteon/X-10 mode.

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Chapter 5: Software Install (Windows)

Overview

Introduction

The QIC contains a built-in command line interface for quick configuration. By using the supplied terminal software, the QIC interface can be accessed using any *Windows* compatible PC with a USB port.

Configuration consists of telling the QIC what X-10 House Code/Unit Numbers will be assigned to a particular Insteon device.

Objectives

In this chapter you will learn about:

- Connecting the USB-Serial adapter
- Installing the terminal software
- Using the terminal software

Note

The software used for QIC is called Putty.exe. It is an open source terminal client. The latest version can be found at **http://www.putty.org/**.

- For Windows operating systems, use the Putty.exe file supplied.

Note

To communicate with the QIC using a PC, you will need the following:

- USB-Serial converter (QTI P/N: 9329)
- Null modem cable (QTI P/N: 9330)

These items are only needed for if you intend to use the PC to configure the QIC.

Installing the USB-Serial Cable

Procedure

Follow these steps to install the USB-Serial cable:

1. Attach the "Null Modem Adapter" to the USB-Serial cable as shown in the picture below.

2. Plug the USB-Serial cable into a USB port on your computer.

3. Windows will automatically detect and install the appropriate drivers.

4. Attach the QIC to the null modem as shown.

5. Connect the QIC power supply. The green LED should light.

Note

If the drivers do not automatically install, please visit the following web site to obtain the latest release for your version of Windows:

http://www.ftdichip.com/Drivers/VCP.htm

Installing the Terminal Software

Procedure

Follow these steps to install the terminal software used to communicate with QIC.

1. Copy the file called 'PUTTY.EXE" from the supplied CD to your desktop.

2. Double click on the "Putty.exe" file icon.

putty.exe

3. You will see the configuration screen:

Quartet Insteon Controller
Copyright © 2012 QTI

Installing the Terminal Software (cont.)

4. Highlight the "Serial" option as shown:

Installing the Terminal Software (cont.)

5. Configure the following:

- Speed = 9600
- Data Bits = 8
- Stop Bits = 1
- Parity = Even
- Flow Control = None
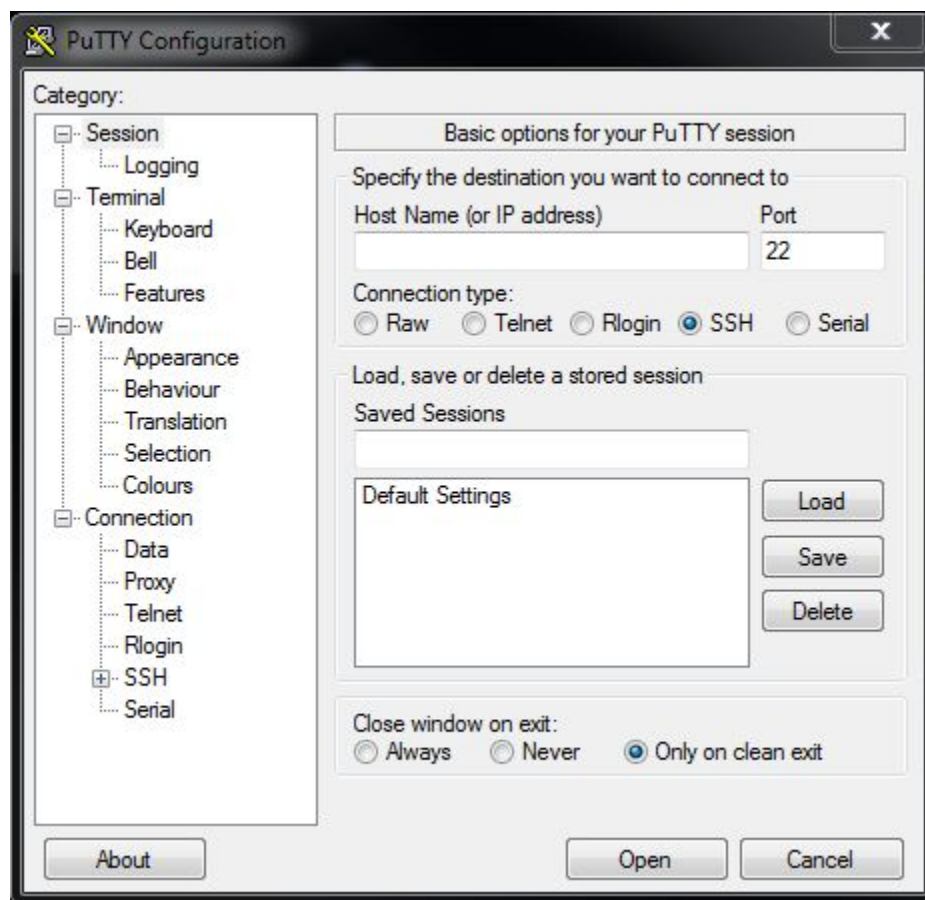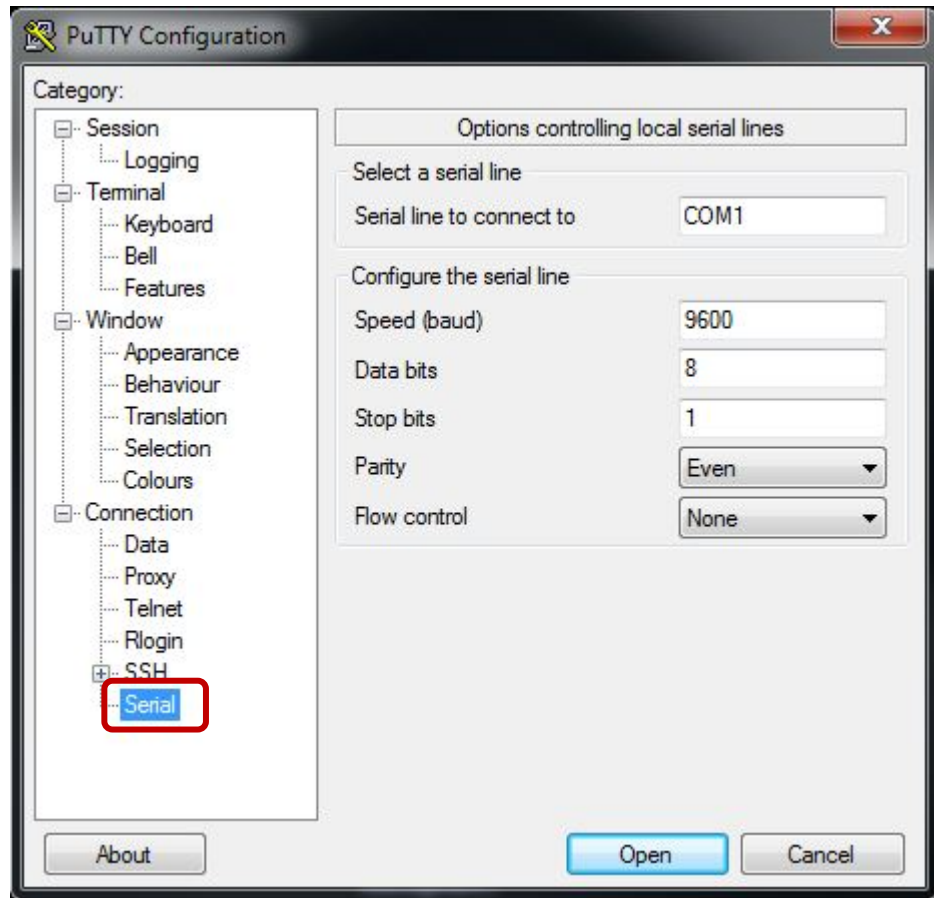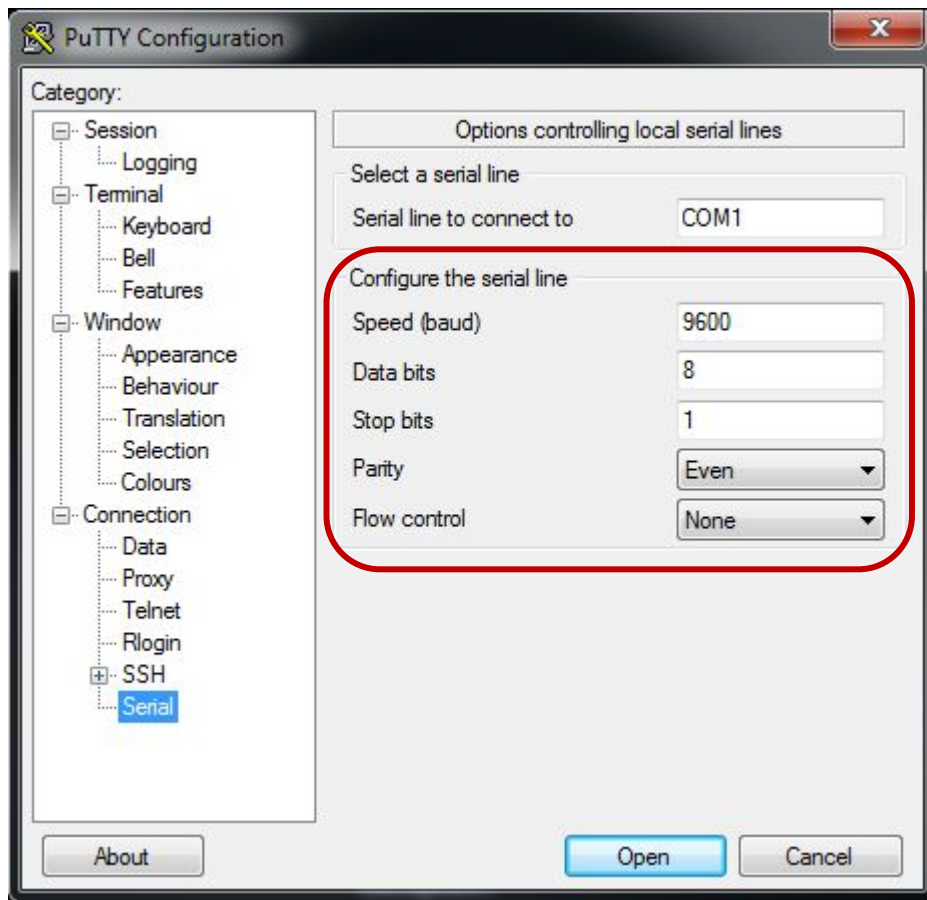
6. Set the COM port to a value not used by your computer. *(See note next page)*.
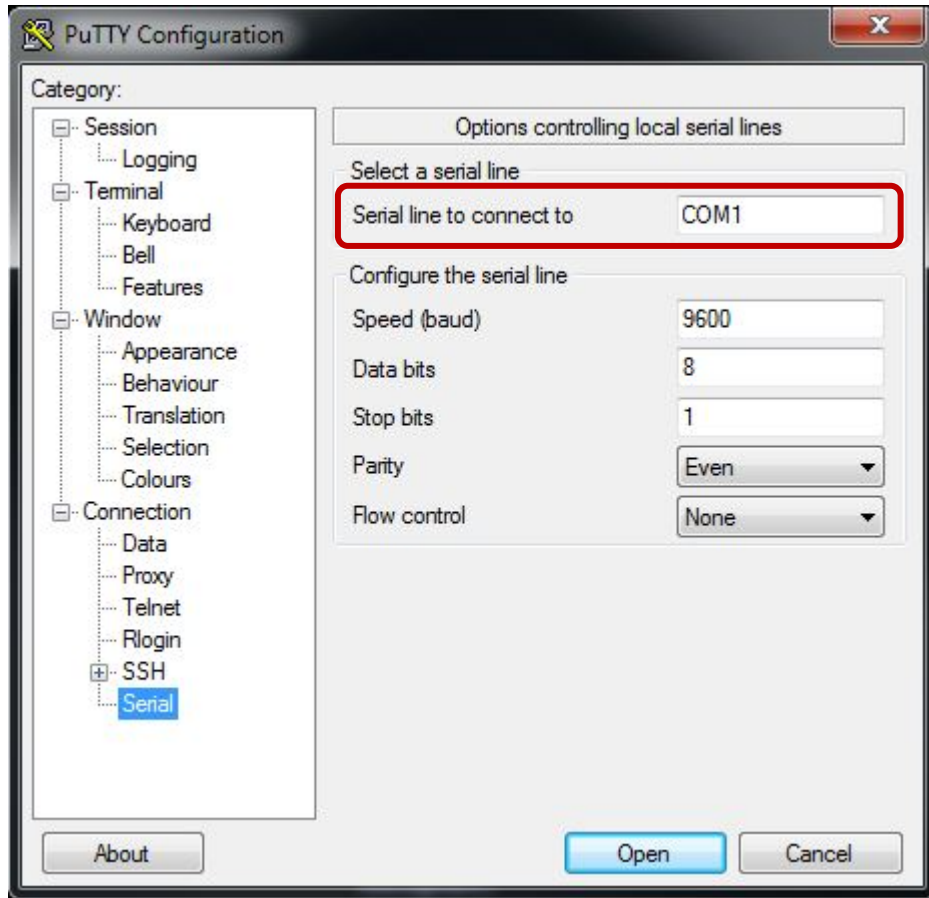
Installing the Terminal Software (cont.)

Note

COM port settings can be obtained by looking at the "USB Serial Port" entry under the "Ports (COM & LPT)" section under Device Manager in Windows.

Quartet Insteon Controller
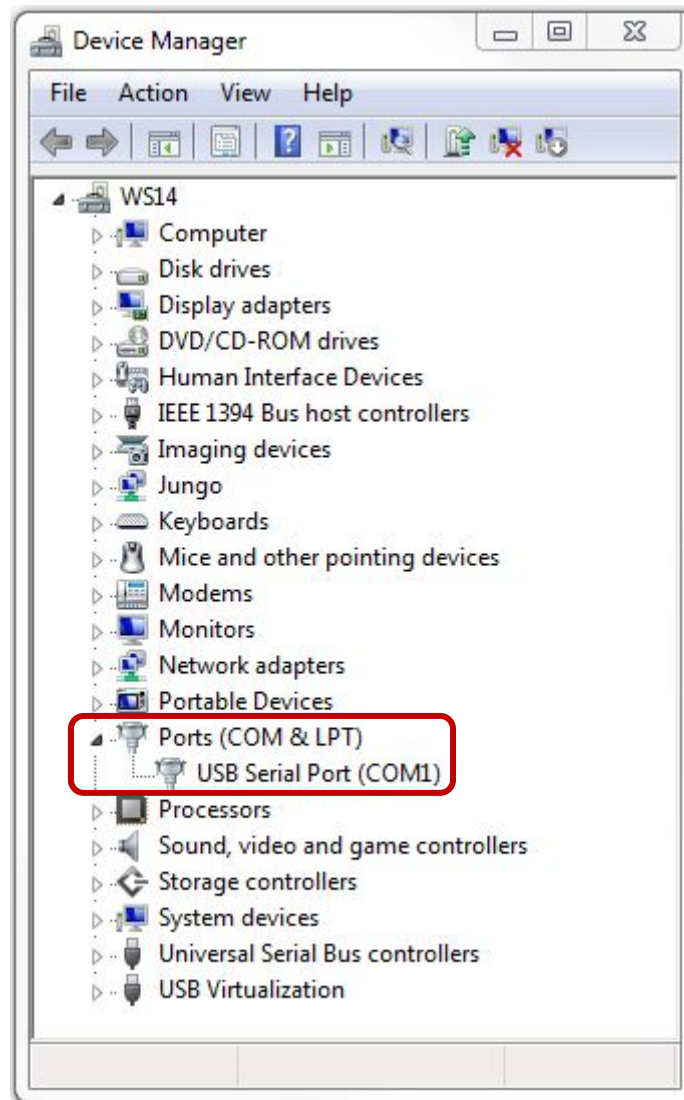
Installing the Terminal Software (cont.)

7. Select the "Session" option.
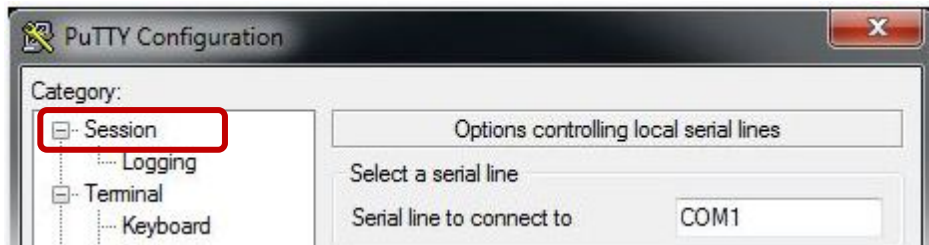
8. On the Session screen, make sure the "Serial" button is selected.

Installing the Terminal Software (cont.)

9. Under "<u>Saved Sessions</u>", type "QIC".
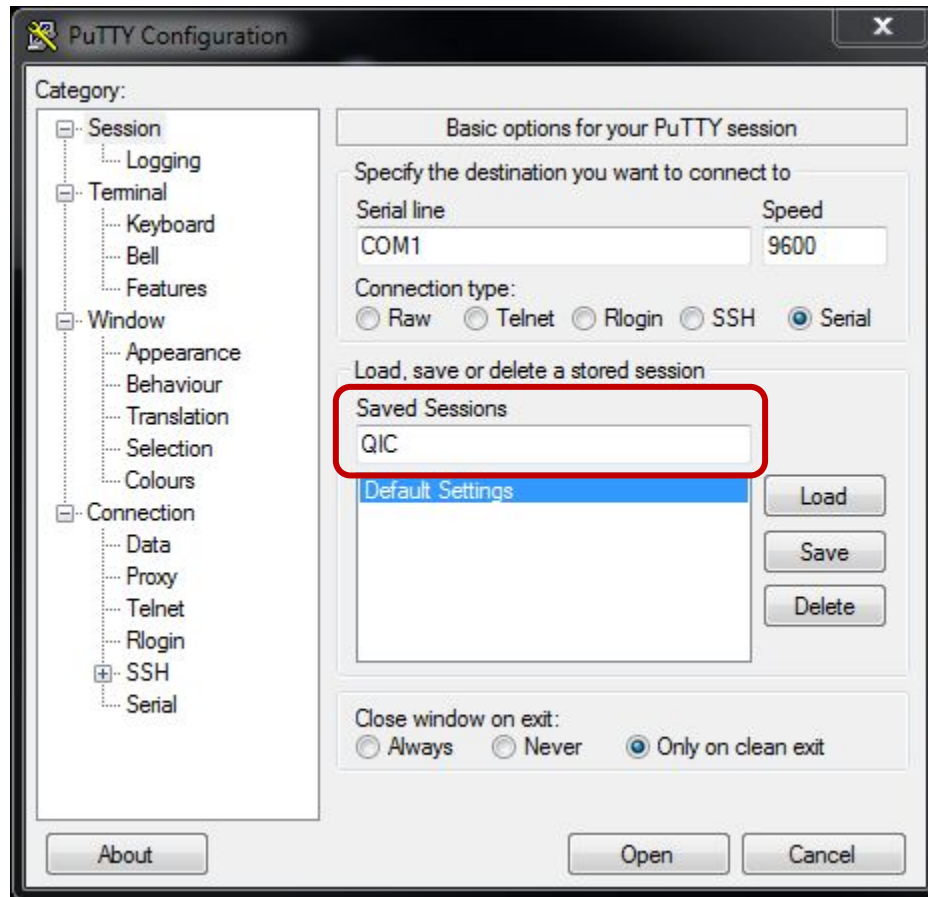
10. Select "<u>Save</u>". This will save the configuration for future use.

Installing the Terminal Software (cont.)

11. The final screen should look like this:
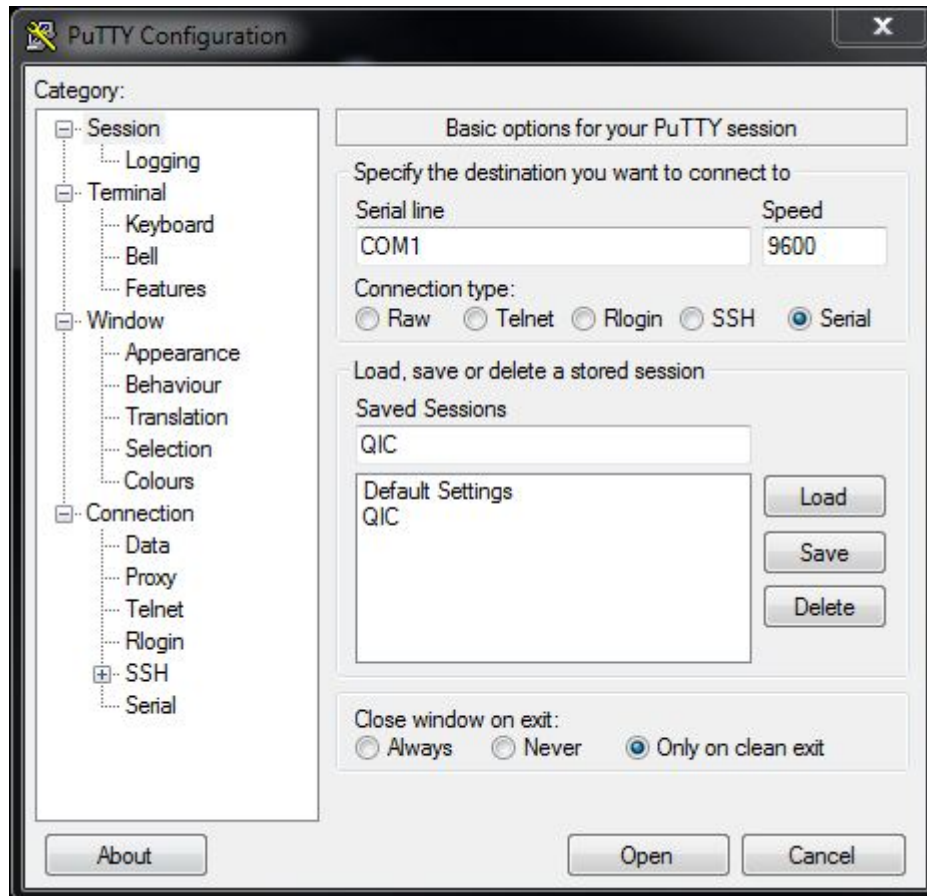
Note

Next time you have to use the terminal, simply select "QIC" from the list of saved sessions and select "Load" then "Open".

Note

Depending on your computer settings, your COM port might not be COM1 as shown.

12. Select "Open" to open the terminal window. The terminal window should look like this:

13. This concludes the section on "Installing Terminal Software".

Note

The screen color has been changed for clarity. Your screen color may be black.

Using the Terminal Software

Procedure

Follow these steps to communicate with QIC.

1. Open up the terminal window as described in the previous section.

2. Type "**QIC**" (all capitals)

Note

You will not see anything on the screen while typing.

3. The QIC command line interface should appear.

```
COM1 - PuTTY

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-QIC CONTROLLER MAIN MENU-

1) ADD DEVICE
2) VALIDATE DEVICE
3) VIEW DEVICE
4) REMOVE DEVICE
5) SHOW DIRECTORY
6) BACKUP DIRECTORY
7) ERASE DIRECTORY
8) RESTORE DIRECTORY
9) TEST DEVICE

ENTER Q TO QUIT.

PLEASE CHOOSE:
```

Note

This is the *Main Menu*. All commands will be initiated from this screen.

Chapter 6: Software Install (Mac OS)

Overview

Introduction

The QIC contains a built-in command line interface for quick configuration. By using terminal software, the QIC interface can be accessed using any *Apple* compatible PC with a USB port.

Configuration consists of telling the QIC what X-10 House Code/Unit Numbers will be assigned to a particular Insteon device.

Objectives

In this chapter you will learn about:

- Connecting the USB-Serial adapter
- Installing the terminal software
- Using the terminal software

Note

The software used for QIC is called ZTerm. It is a terminal client for Apple computers. The latest version can be found at http://www.dalverson.com/zterm/.

ZTerm requires a license. Please refer to the link above for further details.

- For Apple operating systems, use ZTerm.

Note

To communicate with the QIC using a PC, you will need the following:

- USB-Serial converter (QTI P/N: 9329)
- Null modem cable (QTI P/N: 9330)

These items are only needed for if you intend to use the PC to configure the QIC.

Installing the USB-Serial Cable

Procedure

Follow these steps to install the USB-Serial cable:

1. Attach the "Null Modem Adapter" to the USB-Serial cable as shown in the picture below.

2. Plug the USB-Serial cable into a USB port on your computer.

3. Attach the QIC to the null modem as shown.

4. Connect the QIC power supply. The green LED should light.

Note

You must install the latest virtual COM port drivers. Please visit the following web site to obtain the latest release for your version of Mac OS X:

http://www.ftdichip.com/Drivers/VCP.htm

Installing the Terminal Software

Procedure

Follow these steps to install the terminal software used to communicate with QIC.

1. Install the ZTerm software previously downloaded.

2. Double click on the "Putty.exe" file icon.

ZTerm.app

3. You will see a blank screen:

Quartet Insteon Controller
Copyright © 2012 QTI
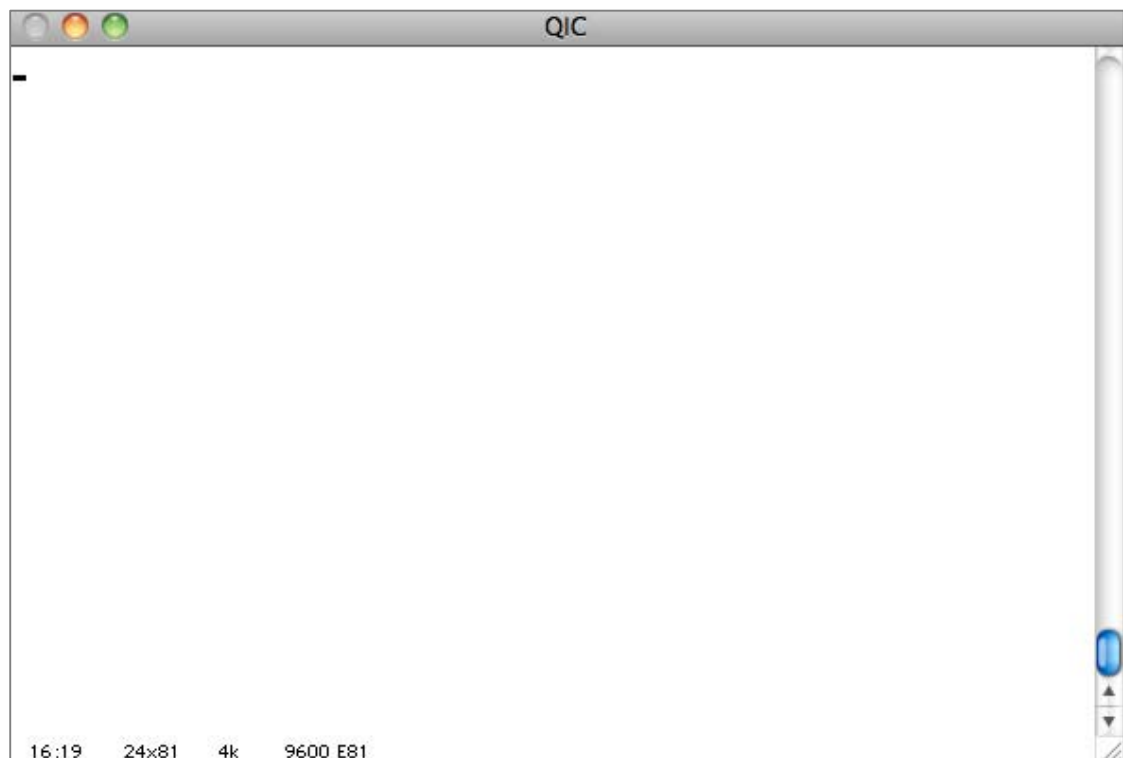
Installing the Terminal Software *(cont.)*

4. On the ZTerm menu bar, go to "**Settings**". From the dropdown box, choose '**Modem Preferences**".
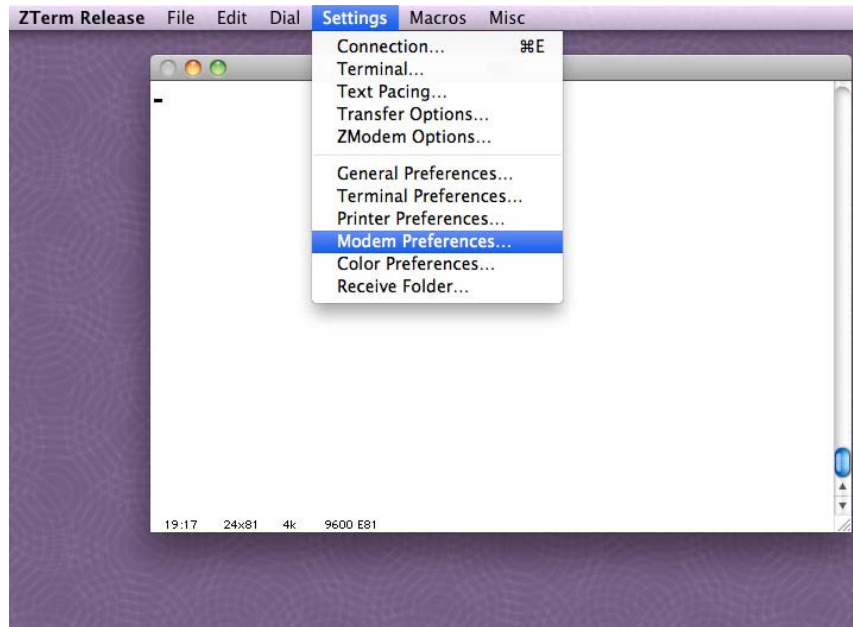
5. From the *Serial Port* dropdown box, choose "**usbserial-000012FD**" and select OK.
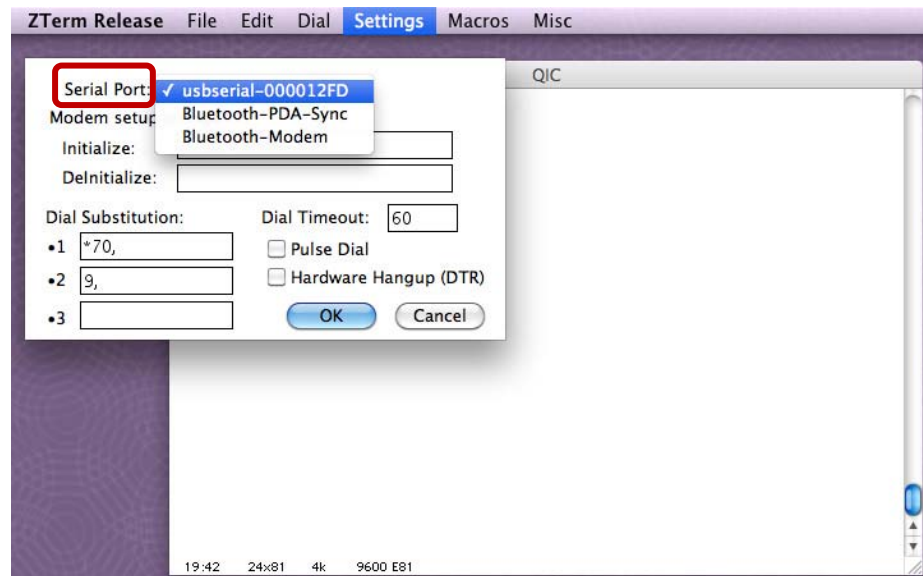
Installing the Terminal Software *(cont.)*

6. On the ZTerm menu bar, go to "**Settings**". From the dropdown box, choose '**Connection**".
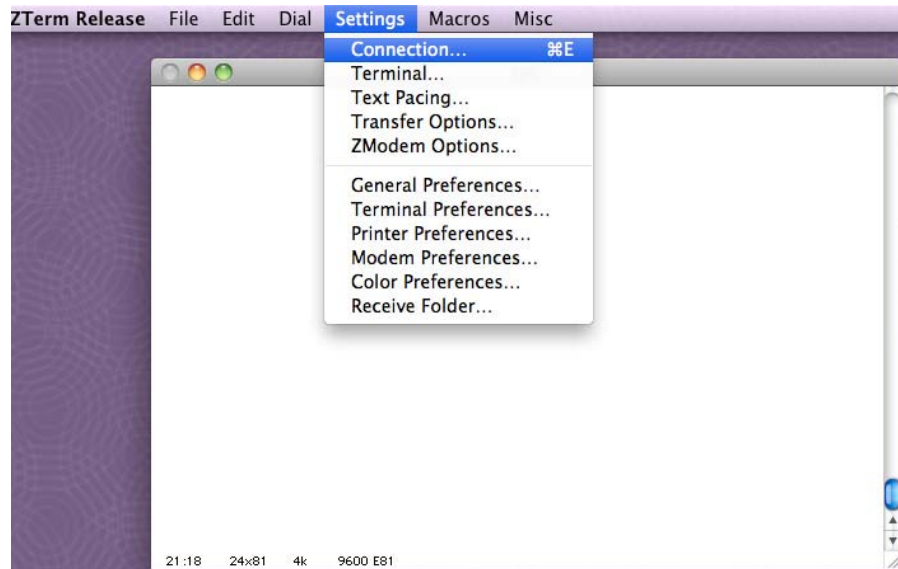
7. Configure the options as shown in the picture below and select OK.
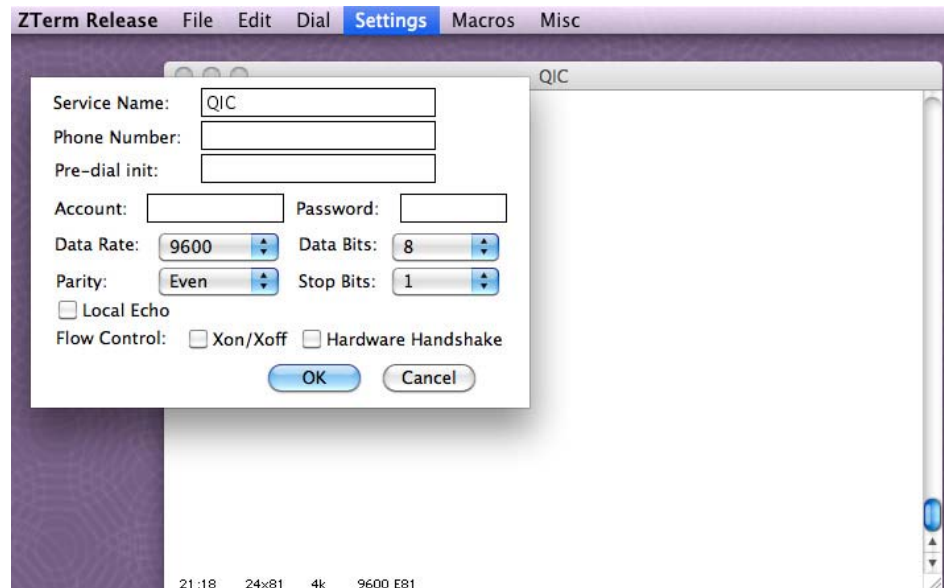
Installing the Terminal Software (cont.)

8. On the ZTerm menu bar, go to "***Dial***". From the dropdown box, choose '***Save Setup***".
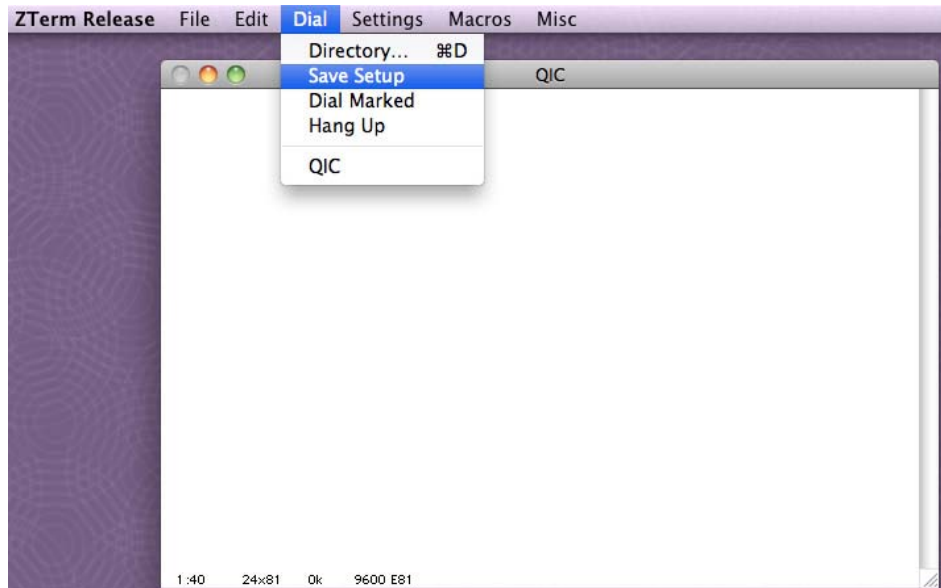
Note

You are now ready to use the terminal software.

Using the Terminal Software

Procedure

Follow these steps to communicate with QIC.

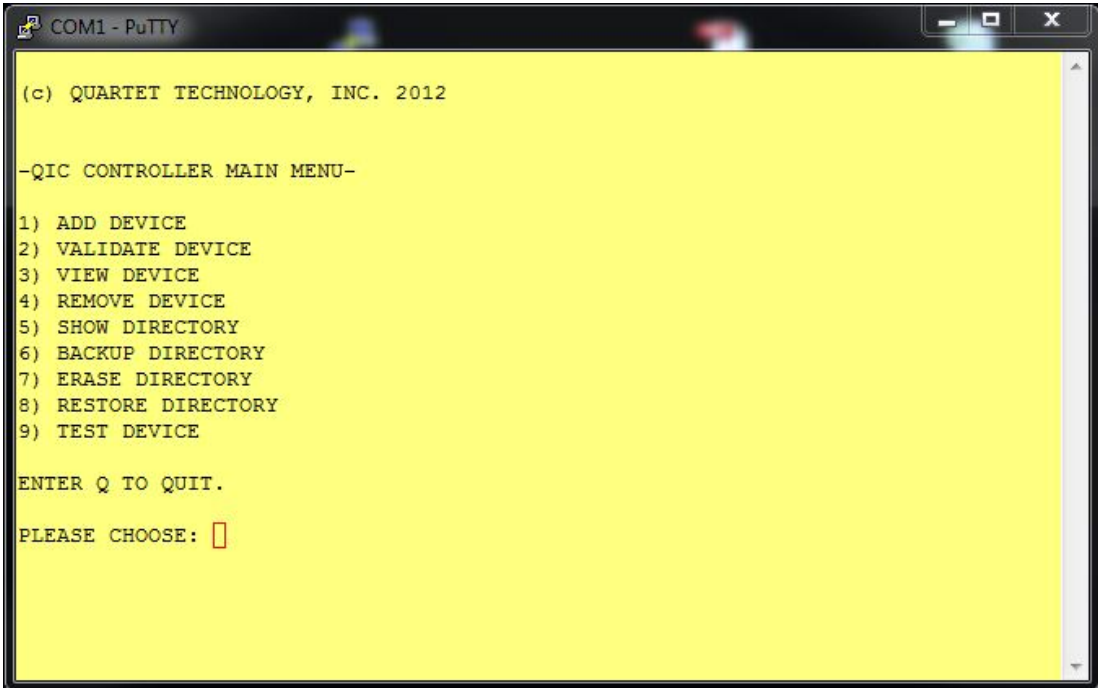1. Open up the terminal window as described in the previous section (if not already opened).
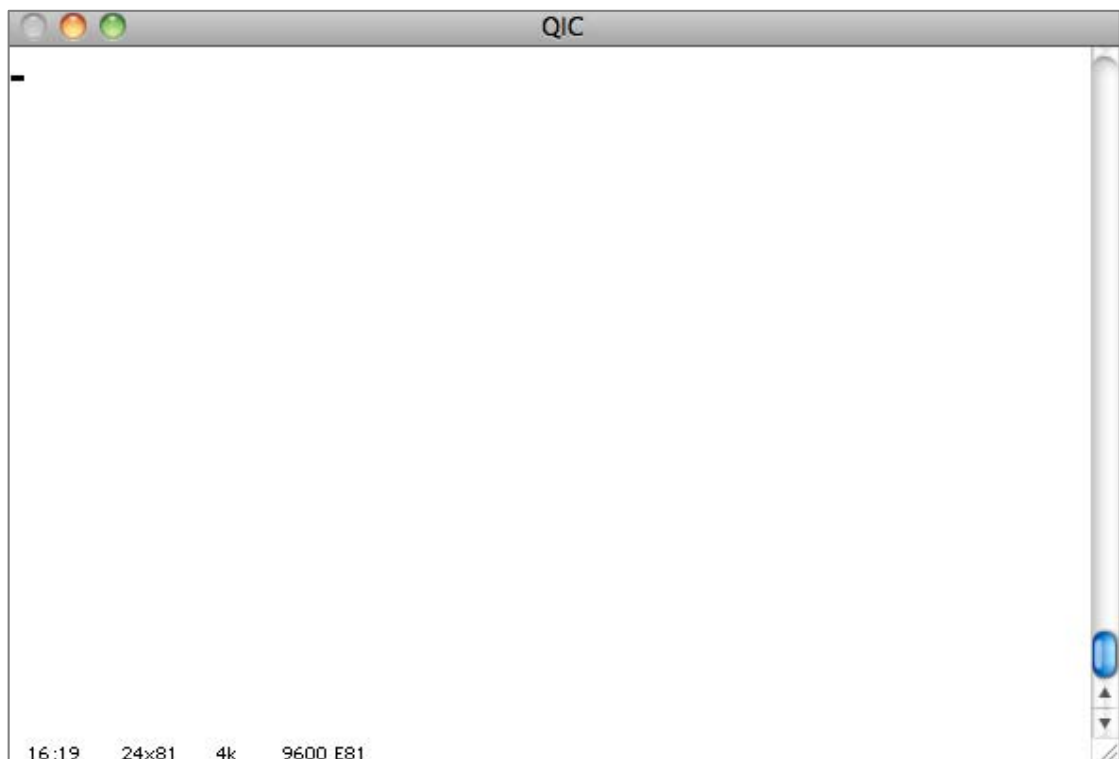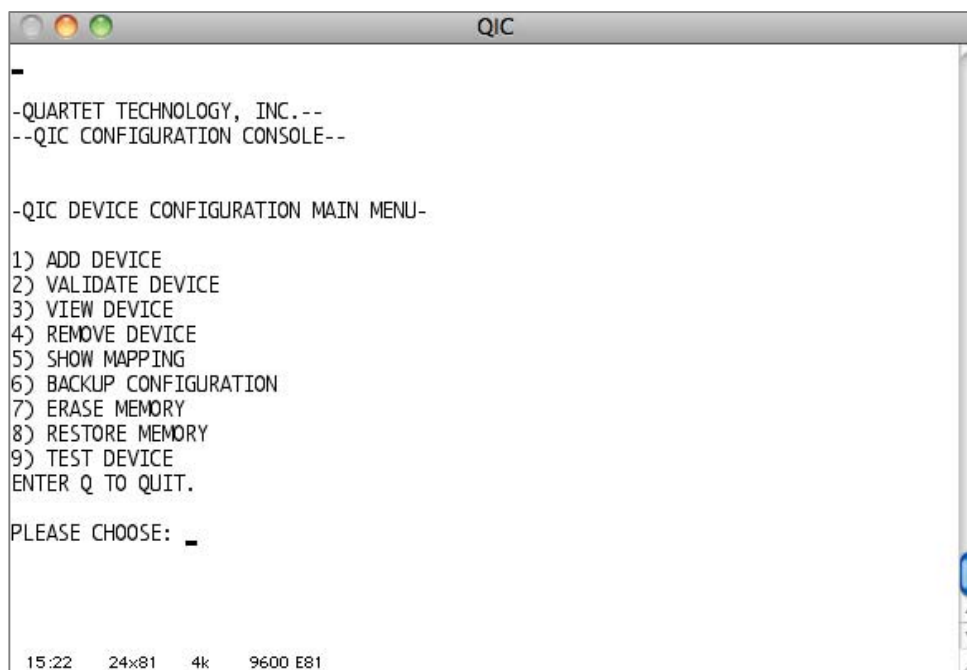
```
QIC
-




16:19    24x81    4k     9600 E81
```

2. Type "**QIC**" (all capitals)

Note

You will not see anything on the screen while typing.

Quartet Insteon Controller

3. The QIC command line interface should appear.

```
000                              QIC
-
-QUARTET TECHNOLOGY, INC.--
--QIC CONFIGURATION CONSOLE--


-QIC DEVICE CONFIGURATION MAIN MENU-

1) ADD DEVICE
2) VALIDATE DEVICE
3) VIEW DEVICE
4) REMOVE DEVICE
5) SHOW MAPPING
6) BACKUP CONFIGURATION
7) ERASE MEMORY
8) RESTORE MEMORY
9) TEST DEVICE
ENTER Q TO QUIT.

PLEASE CHOOSE: _



 15:22    24x81    4k     9600 E81
```

Note

This is the *main menu*. All commands will be initiated from this screen.

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Chapter 7: Program QIC via Computer

Overview

Introduction

QIC commands can be entered by using the terminal window of your computer. These commands allow you to configure the controller for Insteon devices.

Features

- Add Insteon devices.
- Validate if an Insteon device code is already entered.
- View devices by X-10 house code/unit number.
- Remove devices from QIC.
- Show a table of all devices.
- Backup the QIC directory using the on board memory.
- Erase the entire QIC directory.
- Restore a backed up directory.
- Test a device.

Objectives

In this chapter you will learn about:

- Using QIC commands from the terminal window

QIC Commands

Add Device

The ***Add Device*** command allows you to add (maximum 64) Insteon devices.

You will be prompted to:

1. Enter the House Code you wish to associate the Insteon device with

2. Enter the number you wish to associate the Insteon device with

3. Enter the Insteon module address (Ex. 12B3A2)

Example

The Simplicity ECU uses House Code A for the "Lights" menu. Under the menu "Lights", you wish to associate <u>light one</u> with the plug-in Insteon lamp dimmer module shown above.

The QIC menu entry would look like this:

QIC Commands *(cont.)*

```
COM1 - PuTTY                                                    — □ X

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-QIC CONTROLLER MAIN MENU-

1) ADD DEVICE
2) VALIDATE DEVICE
3) VIEW DEVICE
4) REMOVE DEVICE
5) SHOW DIRECTORY
6) BACKUP DIRECTORY
7) ERASE DIRECTORY
8) RESTORE DIRECTORY
9) TEST DEVICE

ENTER Q TO QUIT.

PLEASE CHOOSE: 1                    ◄———  Choose "Add Device"

ADD NEW DEVICE INSTRUCTIONS:
YOU WILL ENTER THE FOLLOWING INFORMATION:
1) HOUSE CODE (A - P)
2) UNIT NUMBER (1 - 16)
3) DEVICE ADDRESS (EX: 12B3A2)
4) DEVICE TYPE
ENTER Q TO QUIT.                          Enter House Code "A"

PLEASE ENTER THE HOUSE CODE (OPTIONS ARE A - P): A

PLEASE ENTER THE UNIT CODE (OPTIONS ARE 1 - 16): 1    ◄——  Light "1"

PLEASE ENTER THE INSTEON DEVICE ADDRESS (EX: 12B3A2): 12B3A2

-INSTEON MODULE DEVICE TYPES-                  Type in Insteon address
 1) DIMMABLE LIGHTING DEVICES (LAMP LINC MODULES)
 2) SWITCHED LIGHTING DEVICES (APPLIANCE LINC MODULES)
 3) SENSORS & ACTUATORS (I/O LINC MODULES)
 4) THERMOSTAT DEVICES
                                               Choose the device type

PLEASE ENTER THE DEVICE TYPE (OPTIONS ARE 1 - 4): 1

PLEASE WAIT...


~~SUCCESSFULLY ADDED INSTEON DEVICE TO THE QIC DIRECTORY~~
```

Note

If the device was added successfully, the Orange LED will blink slowly for 2 seconds.

If the device was not added successfully, the Orange LED will blink fast for 2 seconds.

Continued on next page

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Validate Device

The *Validate Device* command allows you to review information associated with an Insteon device.

This command will prompt you to:

     1.   Enter the Insteon device address you wish to validate (Ex: 12B3A2).

The QIC will return the following information:

QIC Response	Description
Table entry number	This is the entry in the table the device information is stored.
House Code	The X-10 House Code assigned to the Insteon device.
Unit Number	The X-10 Unit Number assigned to the Insteon device.
Device Type	Refers to the Insteon device type associated with the device.
Insteon device address	The Insteon device address.

View Device

The *View Device* command allows you to see information associated with an X-10 House Code and Unit Number.

This command will prompt you to:

1. Enter the X-10 House Code.

2. Enter the X-10 Unit Number.

The QIC will return the following information:

QIC Response	*Description*
Table entry number	This is the entry in the table the device information is stored.
House Code	The X-10 House Code assigned to the Insteon device.
Unit Number	The X-10 Unit Number assigned to the Insteon device.
Device Type	Refers to the Insteon device type associated with the device.
Insteon device address	The Insteon device address.

Remove Device

The ***Remove Device*** command allows you to delete information associated with an X-10 House Code and Unit Number.

This command will prompt you to:

1. Enter the X-10 House Code.

2. Enter the X-10 Unit Number.

The QIC will return the following information:

QIC Response	*Description*
Insteon device has been removed from the QIC directory.	Confirmation that the device has been removed.

QIC Commands *(cont.)*

Show Mapping

The *Show Mapping* command allows you to list all devices contained in the QIC directory.

The output will be a formatted table listing:

Table Entry#	House Code	Unit Number	Insteon Address	Insteon Type

Note

For best viewing, be sure the terminal window on the computer is adjusted wide.

QIC Commands *(cont.)*

Backup Directory

The ***Backup Directory*** command allows you create a backup of all data entered. The backup will be stored in the on-board memory located in the QIC.

QIC Response	Description
Successfully backed up the QIC directory.	Confirmation message the directory was backed up successfully.

Erase Directory

The ***Erase Directory*** command allows you delete all data stored in the QIC memory.

This command will prompt you to:

1. Select "Y" or "N" to confirm you wish to delete the data stored in memory.

If you select "Y", the QIC will return the following information:

QIC Response	Description
Successfully erased the QIC directory.	Confirmation message the directory was successfully erased.

QIC Commands *(cont.)*

Restore Directory

The *Restore Directory* command allows you reload a previous configuration from the QIC on-board memory.

This command will prompt you to:

1. Select "Y" or "N" to confirm you wish to reload the data stored in memory.

If you select "Y", the QIC will return the following information:

QIC Response	Description
Successfully restored the QIC directory.	Confirmation message the directory was successfully restored.

QIC Commands *(cont.)*

Test Device

The *Test Device* command allows you test an Insteon device associated with an X-10 House Code and Unit Number.

This command will prompt you to:

1. Enter the X-10 House Code.

2. Enter the X-10 Unit Number.

The QIC will return the following information:

QIC Response	*Description*
Turn On	Turns on the device associated with the House Code/Unit Number entered.
Shut Off	Shuts off the device associated with the House Code/Unit Number entered.
Up	Brightens the device associated with the House Code/Unit Number entered.
Down	Dims the device associated with the House Code/Unit Number entered.
Change Device	Allows new device to be entered.

Note

Different Insteon devices will respond to different commands. Please check the device datasheet for applicable commands.

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Chapter 8: Program QIC via ECU

Overview

Introduction

Insteon devices can be entered into the QIC using the "***Attendant Switch***" on the Simplicity ECU.

The advantage of using this method is that it does not require a computer and is always available.

Features

- Add Insteon devices.

- Review an Insteon device.

Objectives

In this chapter you will learn about:

- Adding Insteon devices using the attendant switch on the ECU.

- Reviewing Insteon devices already entered via. the attendant switch.

- Mapping Insteon addresses to numbers for entry in the ECU.

Note

To program the QIC using the ECU, be sure all system components are connected as described in Chapter 2.

ECU Commands

Adding Insteon Devices

To add a device to the QIC using the ECU, use the command sequence:

"(The Name)" – "Utility" – "Keyboard" – "Zero" – "Seven"

The ECU will start scanning numbers. You must enter <u>nine</u> numbers in total.

Mapping Table		
Entry	*Value*	*Number Entered*
1	**X-10 House Code**	1
2	**X-10 Unit Number**	1
3	**1st Insteon Address**	1
4	**2nd Insteon Address**	2
5	**3rd Insteon Address**	11
6	**4th Insteon Address**	3
7	**5th Insteon Address**	10
8	**6th Insteon Address**	2
9	**Insteon Type**	1

Example:

The following example will help illustrate how to obtain the "***Number Entered***" for the table above.

For this example, we will assume the following:

1. The ECU is set to House Code "A".

2. We wish to add an Insteon lamp module to the menu group "***Lights***".

3. We wish to assign this Insteon module to '***One***" in the ECU menu.

ECU Commands *(cont.)*

Procedure

1. From the table below, find *House Code A*.

   In the "***Numbered Entered***" column, you will see it is associated with the number "***1***".

   This will be our <u>first</u> entry in the "***Mapping Table***".

2. From the table below, find *Unit Number 1*.

   In the "***Numbered Entered***" column, you will see it is associated with the number "***1***".

   This will be our <u>second</u> entry in the "***Mapping Table***".

Mapping Table Entries	House Code & Unit Number		
	House Code	**Unit Number**	**Number Entered**
	A	1	1
	B	2	2
	C	3	3
	D	4	4
	E	5	5
	F	6	6
	G	7	7
	H	8	8
1 - 2	I	9	9
	J	10	10
	K	11	11
	L	12	12
	M	13	13
	N	14	14
	O	15	15
	P	16	16

3. Look on the back of the Insteon module you wish to add. You will find the Insteon address (*see example below*).

4. From the table below, find the "*Numbered Entered*" value associated with the first number/letter of the Insteon address.

   This will be our <u>third</u> thru <u>eighth</u> entries in the "*Mapping Table*".

Mapping Table Entries	Insteon Address	Number Entered
	0	0
	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
3 - 8	8	8
	9	9
	A	10
	B	11
	C	12
	D	13
	E	14
	F	15

5. Continue with the remaining Insteon address until all six numbers/letters have been identified.

6. The last number entered depends on the Insteon *type*. There are four types to choose from:

Mapping Table Entry	Type	Insteon Types (Modules)
9	**1**	**Dimmable Lighting Devices (Lamp Linc Modules)**
	2	**Switched Lighting Devices (Appliance Linc Modules)**
	3	**Sensors & Actuators (I/O Linc Modules)**
	4	**Thermostats**

7. When you are finished, the complete number sequence should be:

1 – 1 – 1 – 2 – 11 – 3 – 10 – 2 - 1

ECU Commands *(cont.)*

Reviewing Insteon Devices

To review or check for a device previously entered into the QIC using the ECU, use the command sequence:

"(The Name)" – "Utility" – "Keyboard" – "Zero" – "Eight"

The ECU will start scanning numbers. You must enter <u>two</u> numbers in total. The first is the number associated with the House Code and the second is the number associated with the Unit Number.

After both numbers are entered, the ECU will verbally respond with the Insteon <u>device type first</u> followed by the Insteon address.

House Code	Unit Number	Number Entered
A	1	1
B	2	2
C	3	3
D	4	4
E	5	5
F	6	6
G	7	7
H	8	8
I	9	9
J	10	10
K	11	11
L	12	12
M	13	13
N	14	14
O	15	15
P	16	16

Example:

To review what Insteon address is mapped for "*Light*", "*1*":

Enter: **1 - 1**

The ECU will respond with: **1**   **1 - 2 – 11 – 3 – 10 – 2**

                                 <Device Type>   <Insteon Address>

ECU Commands (cont.)

Deleting Insteon Devices

To delete a device that has already entered, use the command sequence:

"(The Name)" – "Utility" – "Keyboard" – "Zero" – "Seven"

The ECU will start scanning numbers. You must enter <u>nine</u> numbers in total.

Enter the first two entries (House Code and Unit Number). Fill the rest of the entries with "0".

Mapping Table		
Entry	*Value*	*Number Entered*
1	**X-10 House Code**	**1**
2	**X-10 Unit Number**	**1**
3	**1st Insteon Address**	**0**
4	**2nd Insteon Address**	**0**
5	**3rd Insteon Address**	**0**
6	**4th Insteon Address**	**0**
7	**5th Insteon Address**	**0**
8	**6th Insteon Address**	**0**
9	**Insteon Type**	**0**

Example:

The following example will help illustrate how to delete an Insteon device that has already been entered for House Code A, Unit Number 1:

For this example, we will assume the following:

1. The ECU is set to House Code "A".

2. We wish to delete an Insteon lamp module assigned to the menu group "*Lights*" - '*One*" in the ECU menu.

3. Enter the following numbers:

   1 – 1 – 0 –0 – 0 – 0 – 0 –0 - 0

Setting the ECU for QIC Mode

When using the QIC, you *must* set the ECU to QIC mode. This is accomplished by the following:

"(The Name)" – "Utility" – "Keyboard" – "One" – "Five"

Say/Select "**One**" for X-10 mode, or "**Two**" for Insteon mode.

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Appendix A: Worksheet

Overview

Introduction

When using the ECU to program the QIC, it is easier to have a worksheet filled out for every device you wish to add.

The following page provides a worksheet for your convenience.

Features

- Ease of programming
- Record of devices programmed

Worksheet

Adding Insteon Devices

Use these tables to find the correct ECU entry numbers when programming the ECU

X-10 House Code															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

X-10 Unit Number															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Insteon Address															
0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

X-10 House Code	ECU Entry Numbers
X-10 House Code	
X-10 Unit Number	
1st Insteon Address	
2nd Insteon Address	
3rd Insteon Address	
4th Insteon Address	
5th Insteon Address	
6th Insteon Address	
Insteon Type	

Worksheet (cont.)

Reviewing Insteon Devices

Use these tables to decode the numbers spoken when reviewing. The ECU will verbally respond with the Insteon <u>device type first</u> followed by the Insteon address.

X-10 House Code															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

X-10 Unit Number															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Insteon Address															
0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

X-10 House Code	ECU Review Numbers
Insteon Type	
X-10 House Code	
X-10 Unit Number	
1st Insteon Address	
2nd Insteon Address	
3rd Insteon Address	
4th Insteon Address	
5th Insteon Address	
6th Insteon Address	

Appendix B: Recommended Devices

Overview

Introduction

The following table lists some Insteon compatible devices.

Note

Quartet does not guarantee the compatibility of any Insteon device.

Recommended Devices

Insteon Device	P/N:
Insteon Thermostat	2441TH
Venstar Thermostat	2491T1E
Venstar Thermostat	2491T7E
Venstar Thermostat Adapter	2441V
Lamp Linc	2457D2
Appliance Linc	2456S3
I/O Linc	2450