4.4 Remote Access

The **Remote Access** menu contains **Auto Call Home** and **Start Blastware Mail**. Blastware Mail is also accessible via the Windows Start, Programs menu. The **Auto Call Home** feature has three communication options, 1) **Serial**, or 2) **UDP/IP** and 3) **TCP/IP** .

4.4.1 Auto Call Home™ Overview

Use the **Auto Call Home** program for easy, remote access to your monitor and data, using Serial or IP communications. Whenever an event occurs, the monitor automatically places a call to your PC and downloads event data into a central location on your hard disk drive. When the monitor is ready to call in, it switches its modem on, and dials in to your PC. When communication has been established, the PC checks the serial number of the monitor, and then executes the instructions you have set for that specific monitor. Once data has been downloaded, the PC terminates communication.

To use this feature, you require a telephone or cellular modem connection to your Micromate, Series III Blastmate or Minimate Plus (with a serial number of 6000 or more), or Series IV unit, a PC equipped with a free serial port, and the Microsoft® Windows® operating system. If using the **Auto Call Home** Serial Communications option, each communications port used on the PC must also have a modem. The **Auto Call Home** program is not available for use with units that have a serial number less than 6000, the Minimate Blaster or any of the Series II units (DS477/677 and DS077).

NOTE: When connecting to a Series IV unit, TCP is the recommended communication protocol for reliability of messages being transferred between the unit and Blastware

4.4.2 Steps for a Successful Auto Call Home Configuration

Review each step below, and proceed to the corresponding Subsection that is referenced to make the required configuration settings:

1. Ensure that you have a Micromate, Blastmate III or Minimate Plus with a serial number of 6000 or higher, or a Series IV unit.
2. Take a moment to review the entire **Remote Access** Section of this manual.
3. Review the protocol descriptions outlined in this Section for **Auto Call Home IP** and **Serial communications**. Determine what type of communications protocol you will be using, a) **Serial**, b) **UDP/IP** or c) **TCP/IP**. Proceed to the appropriate section within this chapter for more information on these communication setups.
4. Purchase the required software and modem(s). Purchase a communications package from your local service provider. Install the required software as per the manufacturer's instructions. For a list of required software and communication requirements for IP communications, refer to Section **Setting up an Airlink Raven Modem for Auto Call Home UDP/IP** and **TCP/IP**.
5. Connect the instrument to your computer and start Blastware.
6. Proceed to the **Setup Unit** Section. Setup the unit dependent on the communications protocol, (i.e. cellular modem/telephone line or IP communications).
7. Proceed to the **Setup PC** Section and configure your PC. Configure the Communication Settings for Serial, UDP/IP or TCP/IP. For Serial Communications, refer to the Subsection **Configure Auto Call Home Serial Communications**, or for IP Communications, refer to the Subsections **Configure Auto Call Home UDP/IP Communications**, **Setting up an Airlink Raven Modem for Auto Call Home UDP/IP**, and **Using Internet Protocol (IP) Communications.** Or, if you prefer, refer to the **TCP/IP** section for those configurations.

    > **Note:** For setting up the UDP/IP or TCP/IP communications protocols it is suggested that you contact your System Administrator to handle Windows® Firewall adjustments and router configurations.

8. Refer to the **Reports** Section. Establish where your data output files will be located once they are downloaded, and their file format. Additionally, determine the download location of Event and FFT Report Metafiles and formats, along with the measurement system to be applied.

9. Proceed to the **Start Auto Call Home** Section.

10. Use the various testing features to determine that the modem and software configurations are working in the office prior to locating the system as a field installation.

4.4.3 Description of Commands

a. Setup Unit

Access this dialog by selecting **Remote Access Menu** > **Auto Call Home** > **Setup Unit**. The Setup Unit command opens the **Call Home Setup** dialog box. The settings made in the Call Home Setup dialog box are stored directly on the unit. If you are using **Auto Call Home** with more than one monitor, you must set up each monitor individually.

(1) USR Modem or Radio Modem

i Dial-up modem option

If you're connecting your instrument to a cellular modem or a telephone line modem, then place a check mark on the **Enable Auto Call Home** and click on the **USR Modem** button.
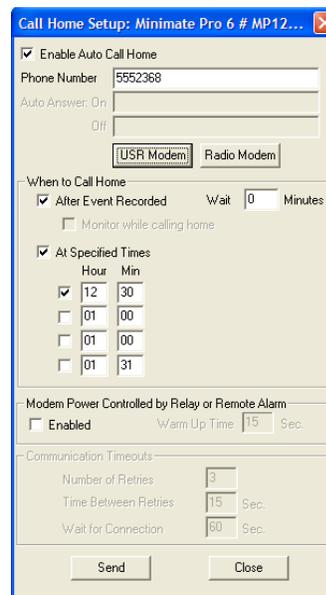
ii IP modem option

If you're using a Raven modem or any other type of Internet modem or Radio modem, then place a check mark on the **Enable Auto Call Home** and then press the **Radio Modem** button.

Call Home Setup: Minimate Pro 6 # MP12...

☑ Enable Auto Call Home

Phone Number   RADIO RING

Auto Answer: On

Off

USR Modem   Radio Modem

When to Call Home

☑ After Event Recorded   Wait   0   Minutes

☐ Monitor while calling home

☑ At Specified Times

	Hour	Min
☑	12	30
☐	01	00
☐	01	00
☐	01	31

Modem Power Controlled by Relay or Remote Alarm

☐ Enabled   Warm Up Time 15 Sec.

Communication Timeouts

Number of Retries   3

Time Between Retries   15 Sec.

Wait for Connection   60 Sec.

Send   Close

This will place the Radio Ring command in the dial string section and automatically transmit any data once it has been recorded. From here you will need to program the modem to redirect the information to their router or directly to your computer.

Depending on the situation, you need to select if you want the unit to call home after each event, at a specific time or both. Place the check mark(s) at the proper place(s).

Press the **Send** button to program the unit.

iii **When to Call Home**

These settings determine when the monitor calls in to your PC to download data. If your unit is set to Histogram or Histogram Combo Recording Mode, you must schedule the unit to call home.

iv **After Event Recorded**

To have the monitor download data after every Event, click on this checkbox to display a checkmark. The monitor will call in after the wait time you specify, as set below.

v **Wait ___ Minutes**

Enter the length of time in minutes the monitor waits before calling in to your PC to download data. Click on the text box and enter the time. If you want the monitor to call in immediately after the Event, enter *0*.

vi **Monitor while calling home**

Select this setting to ensure that the unit continues to record Events during downloading so that no Events are missed. If an Event is triggered during a download, the unit will stop the download, record the Event, and then restart downloading Events three minutes later to your PC. This function works *only* with downloads that occur right after the Event, or after the pre-set wait time. While in this mode, you are not able to set the time or delete Events. Downloads scheduled at a specific time (see the next item) cannot be interrupted to capture an Event.

vii   **At Specified Times**

You can have the monitor call in at the same time every day, up to four times a day, to download data. This setting is preferable for long-term monitoring as it ensures that the monitors memory is regularly cleared while preserving battery power. It is more efficient to

have the unit call in only once or twice a day to download date rather than several times a day when an Event occurs.

Note: The "Monitor while calling home" function above does not work with scheduled downloads. Be sure to schedule your downloads for times when Events are unlikely to occur, to minimize the risk that an Event will be missed.

To enable downloads at specific times, click on the At Specified Times checkbox to display a checkmark. Then enter the time information in 24-hour format.

The unit will only call when it is in Monitor Mode. If the unit is set to call home when it is in Sleep Mode because the timer was set, it will not call home at that time.

(2) **Enable Auto Call Home**

Click on the checkbox to Enable **Auto Call Home** on the monitor currently connected to your PC. The unit must have the Auto Call Home settings configured.

(3) **Dial String**

Enter the dial string for the remote modem you intend to use with the monitor. The dial string must include the phone number for the telephone line to which your PC modem is connected. Your modem type may use a different dial string. Consult the documentation that came with your modem.

To change the string, click on the text box and enter the dial string. To insert a comma in the dial string without causing a 1 second pause, place the characters "\," (backslash comma) into the string.

Note: The dial string for radio modems is RADIO RING.

(4) **Auto Answer: On**

Enter the text string the monitor sends to the modem to turn Auto Answer mode on when the modem is in data mode. The default text string has been tested on various modems from different manufacturers, and found to work adequately. However, you may wish to change the string to improve performance. Consult the documentation that came with your modem.

To change the string, click on the text box and enter the text string.

Note: The Auto Answer: On string for radio modems should be blank.

(5) **Auto Answer: Off**

Enter the text string the monitor sends to the modem to turn Auto Answer mode off. The default text string has been tested on various modems from different manufacturers, and found to work adequately. However, you may wish to change the string to improve performance. Consult the documentation that came with your modem.

To change the string, click on the text box and enter the text string.

Note: The Auto Answer: Off string for radio modems should be blank.

(6) **Modem Power Controlled by Relay or Remote Alarm**

This setting enables you to conserve modem power for longer operation. The Blastmate III, Minimate Plus and Series IV units automatically toggles a pin on the auxiliary port that can be used to power the modem on or off as needed. The Warm Up Time is to allow the modem to initialize. Please contact Instantel for advice on relay settings necessary to use this function.

Warning: The alarm cannot be used if this feature is enabled.

(7) **Communication Timeouts**

This area contains information on the modem communication setup. You cannot change any of these settings. Number of Retries indicates the number of retries the monitor will make to call in if the line is busy on the first attempt. Time Between Retries is the time in seconds between these attempts. Wait for Connection is the time the monitor waits for instructions from the PC after its call has been answered; if no instructions are received within this time, the monitor terminates the connection. Serial Idle Time is the amount of time the monitor allows without any exchange with the PC before terminating the connection.

(8) **Command Buttons**

To choose one of the following command buttons, click the mouse pointer on the button.

- **Send**

Press this to send your settings to the unit.

- **Close**

Leave the dialog box without changing the current settings.

b. Setup PC

You are able to access the **Setup PC** command from two locations;

1) **Remote Access Menu** > **Auto Call Home** > **Setup PC**, or

2) **Remote Access Menu** > **Auto Call Home** > **Start**, then **Settings Menu** > **PC Setup**.

Either command will store and access the settings you enter.
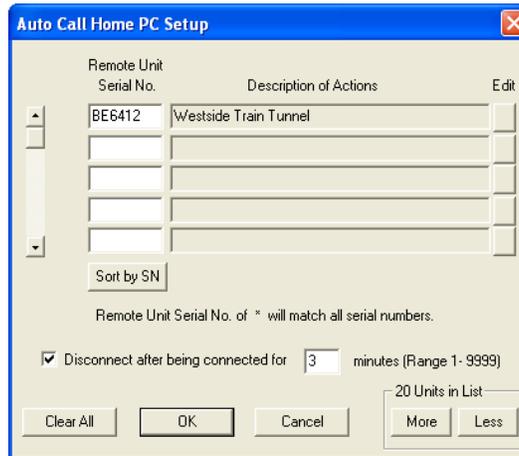
The **Setup PC** command opens the **Auto Call Home PC Setup** dialog box, where you setup your PC for communication with remote monitors. You must tell Blastware which monitors to expect modem communications from. When the monitor phones in, the software checks the monitors serial number against the settings contained in the **Auto Call Home** PC Setup dialog box. If it finds a match, it executes the instructions you have specified.

(1) **Remote Unit Serial No.**

Enter the serial numbers of the Blastmate III or Minimate Plus units that you wish to use with **Auto Call Home**. Click on the text box and enter the serial number.

You can also create a single set of actions to be performed when any remote monitor calls in to your PC. In the first Remote Unit Serial No. field, enter the * character as the serial number. Then click on the Edit button to set the actions (see below). Blastware applies these actions to any monitor that calls in.

Note: **Auto Call Home** is supported by Blastmate III or Minimate Plus units with a serial number of 6000 or greater, or any **Series IV** unit.

(2) **Description of Actions**

This area displays the description entered for the unit. The description cannot be edited here. Click on the Edit button (see below) to change your description.

(3) **Edit**

The **Edit** button invokes the **Auto Call Home Actions** dialog box. In this dialog box you tell Blastware what actions to perform when the monitor calls in.
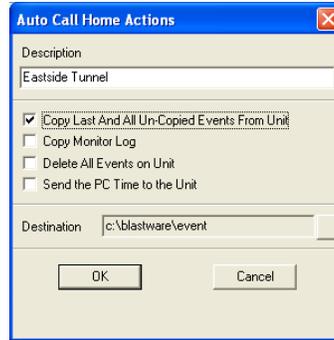
i **Description**

Enter the description you wish to associate with this monitor. The description allows you to identify the monitor in a way that is meaningful to you. For example, you may wish to describe the monitor according to its installed location or by the project that it is monitoring.

To enter a description, click on the text box and type in your description.

ii **Copy Last and All Un-Copied Events From Unit**

Check this checkbox to have Blastware download the most recent Event and all Events on the unit that have not yet been downloaded. The Events will be copied to the directory that you specify (see below). If this is not selected no Events will be downloaded.

To choose to download the most recent and all un-copied Events, click on the checkbox to display a checkmark.

iii **Copy Monitor Log**

Check this checkbox to have Blastware download the monitor log. The log will be copied to the directory that you specify (see below).

To choose to download the monitor log, click on the checkbox to display a checkmark.

iv **Delete All Events on Unit**

Note: This command will not work if Auto Call Home is set to run during monitoring.

You can have Blastware delete all Events stored on the unit. Click on the checkbox to display a checkmark.

> **Warning**: If you select **Delete All Events on Unit** without also selecting **Copy Last And All Un-Copied Events From Unit**, you may delete Events that you have not yet copied to your PC. Once deleted, these Events cannot be recovered.

> **Note**: This option is not available if the unit is set to Histogram Combo Recording Mode.

v **Send the PC Time to the Unit (Series III, IV and Micromate)**

You can have the PC Time and Date settings sent to the unit. One second is added to the PC Time to allow for transfer delays.

Note: This command will not work if Auto Call Home is set to run during monitoring.

Additional feature available for Micromate monitors only: If an Auto Call Home configuration, with the 'Send the PC Time to the Unit' command selected, has been set in the Monitor Scheduler, and the time difference between the PC and the Micromate is within 10 seconds, the time will be updated on the unit; the Micromate clock will gradually (100 ms/s) be updated to align with the new time. If the time difference is greater than 10 seconds, the unit will not be updated. A log will be added to the Service Log file indicating if the time update was applied or not.

(4) **Destination**

This displays the directory where the data from the monitor will be copied. To select a directory, click on the button to the right of the description field. The following dialog box appears:
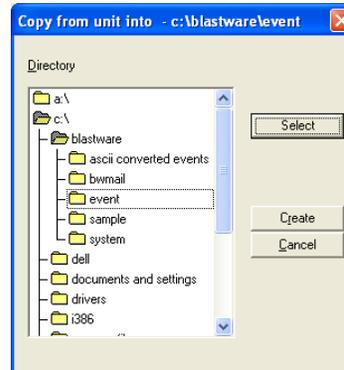
Navigate through your directories to select the destination directory. Press Select to make that directory the destination for downloaded Events. To create a new directory, press **Create** and enter the name of the directory in the dialog box that appears.

i **"Disconnect after being connected for 'x' minutes (Range 1-9999)"**

Check this box to have the Call Home connection automatically terminated after a certain time (1-9999 minutes). The timer starts as soon as the PC is successfully connected to the remote unit. If a Call Home connection is terminated because of this timeout a "Session timeout" entry is made in the CALLHOME.LOG.

NOTE: Make sure that the timeout is long enough to allow all Events to download. For example, a 1- second 4-channel Event recorded at 1024 sps takes about 1 minute to transfer using a typical modem connection. For **Series IV** units, ensure that the range is set to handle extremely large Events or thousands of stored Events.

ii **Clear All**

Press this button to clear all settings in the **Auto Call Home** PC Setup dialog box.

If you wish to clear the settings for only one monitor, erase the serial number. The Description field and all settings within the Call Home Setup dialog box will clear automatically.

iii **__ Units in List**

This area lets you control how many monitor entries appear in the list (the minimum is five). The current number appears in the title. To add more entries, click on the **More** button. To remove entries, click on the Less button.

Note: Whenever you press the Less button, you will erase any settings you have made in the entry you are deleting. For example, if there are 7 monitors in the list, and you press Less once, you will erase all settings for Monitor 7.

iv **Command Buttons**

Select **OK** to save your settings and return to the Main Window, or **Cancel** to leave the dialog box without changing the current settings.

c. Load Setup

Use the **Load Setup** function to automatically send saved setup files to remote units. Access this dialog by selecting the Remote Access menu > Auto Call Home > Start > Settings > Load Setup.
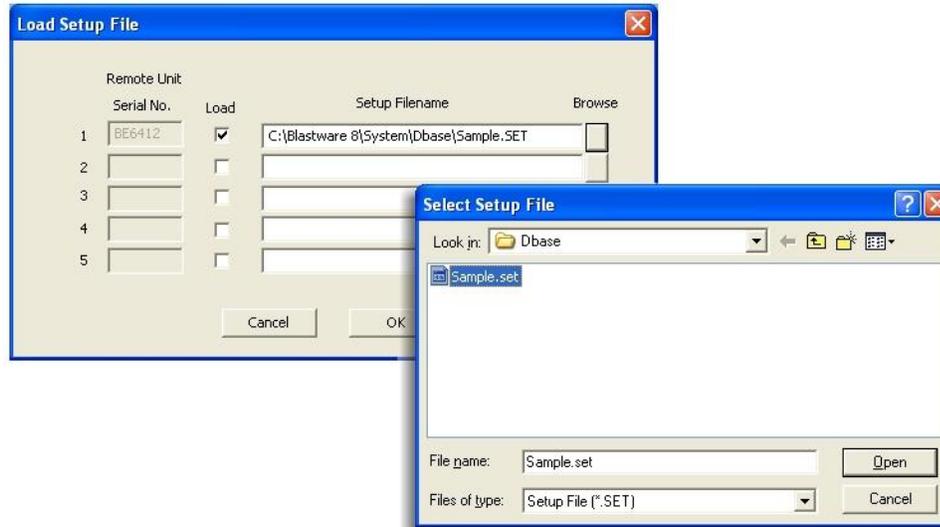
(1) **Remote Unit**

Under the column **Remote Unit**, you are able to view the serial number of each unit that is being monitored.

(2) **Load**

Clicking in this box will indicate that you want to load the specified setup file shown in the **Setup Filename** text box.

(3) **Browse**

Use the **Browse** feature to search and select the **Setup File** that you want to be loaded into the specified unit.

(4) **Open**

Select **Open** to accept the selection. This file and path will be added to the **Setup Filename** text box.

(5) **Cancel**

Select **Cancel** to leave this dialog without applying the changes you have made.

(6) **OK**

Select **OK** to approve the changes.

d. Reports

This option is only available when **Auto Call Home** is not actively connected. Select **Settings** from the main menu bar of the **Auto Call Home** dialog box, than click on **Reports** to display the **Setup Text Report for Data Base** dialog box:

(1) **Create Database Files**

If you would like to generate file copies of your reports or if you are using **Blastware Mail**, select **Create Database Files**. If it is an 8-channel Event that is being sent to a database file, two separate files, 4 channels each, is created. . If it is a 6-channel Event that is being sent to a database file, two separate files, 4 and 2 channels each, are created.

File Naming Convention Examples:

Event Name	H0029YO8_CC0.txt
Database File Name	H0029YO8_CC0.txt or H0029YO8.xml
Event Report File	H0029YO8_CC0_1_4.wmf (4-channel example)
	H0029YO8_CC0_5_8.wmf (8-channel example)
	H0029YO8_CC0_5_6.pdf (6-channel example)
FFT Report File	H0029YO8_CC0_FFT1_4.wmf (4-channel example)
	H0029YO8_CC0_FFT5_8.wmf (8-channel example)
ASCII Export	H0029YO8_CC0_ASCII.txt or H0029YOB_CC0_XML.xml

NOTE: Series IV file naming is the same with the exception of the beginning of each file, which starts with "MPID#–".

(2) **Save to**

Use the **Save to** text box to indicate the directory and folder in which you want the files to be saved, or select the "**…**" tab to browse and select directories on your PC. If you want to add a new directory, it must be done within Windows® Explorer.

To automatically save files into a folder that is automatically created using the serial number of the unit, place a checkmark in the **Use Serial Number as a Subdirectory** box.

(3) **Sensor Configuration**

Select your **Sensor Configuration** by either selecting the radio button next to **Uni-Axial** or **Tri-Axial**.

(4) **Database File Type**

Indicate what file type you would like to have the database files saved as, by either selecting the radio button next to **Text** or **XML**.

(5) **Output Files**

In this section of the dialog, you can select which file types you want to create, and also the directory path where you want to save each file type. Use the **Save to** text box and ☐ to indicate a directory path for the saved files.

    i **Event Report Metafile**

This feature is only available if the **Tri-Axial** format has been selected. Selecting **Event Report Metafile** will save the file in a graphic (.wmf) format.

    ii **Event Report PDF**

This feature is only available if the **Tri-Axial** format has been selected. Selecting **Event Report PDF** will save the file in the Adobe® Acrobat® (.pdf) format.

Note: The associated Metafile used to create each .pdf file will be deleted.

    iii **FFT Report Metafile**

This feature is only available if the **Tri-Axial** format has been selected. Selecting **FFT Report Metafile** will save the file in a graphic (.wmf) format.

    iv **Frequency Range**

This feature is only available if the **Tri-Axial** format has been selected. Enter the **Frequency Range** you would like to include within your reports by inputting the range in the **To** and **From** boxes.

    v **Convert Event to ASCII**

This feature is only available if the **Tri-Axial** format has been selected.

    vi **Convert Event to XML**

This feature is only available if the **Tri-Axial** format has been selected.

(6) **Measurement System**

Select the unit type that you would like to have the reports created in by either selecting **Metric** or **Imperial**. Select the unit which the microphone reading was created with, **dB** or **pa** (metric), or **psi** (imperial).

(7) **File extensions for database reports**

Under **File extensions for database reports** you can alter the file extension for either the database or metafile. Place your cursor in the box related to the extension you would like to change under **For Waveform Events** or **For Histogram Events**, highlight the existing default text, and replace with an optional file extension name (i.e. JPG, TIF, BMP).

Warning: Use this with caution, as some programs will not be able to open the file if an improper extension is used.

(8) **Test**

You can test the file extension, to ensure that Windows recognizes the file type and that you are able to open the file with either a word processing or graphics program, by clicking on the **Test** button. When you click on the Test button, the following dialog appears:
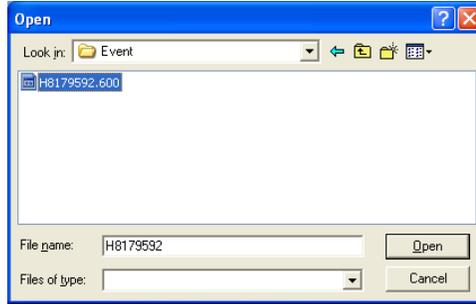
(9) **Open**

Highlight an existing event and select Open. The files will be written to the specified directory with the file extensions that you have input. Use the Windows File Explorer program to locate the files, and ensure that you can open them.

(10) **Cancel**

Click on Cancel to abort the test.

4.4.4   Communications Configuration Options

Communications configurations are based on the type of unit you have, Series III or Series IV. For Series III communication protocols, there are two possibilities, UDP/IP or TCP/IP. Series IV offers four communication configuration possibilities: UDP/IP or TCP/IP, with Automatic or Static IPs. All Series III and Series IV units support Serial Communications.

NOTE: When connecting to a Series IV device, TCP is the recommended communication protocol for reliability of messages being transferred between the unit and Blastware.

Micromate Serial Communications
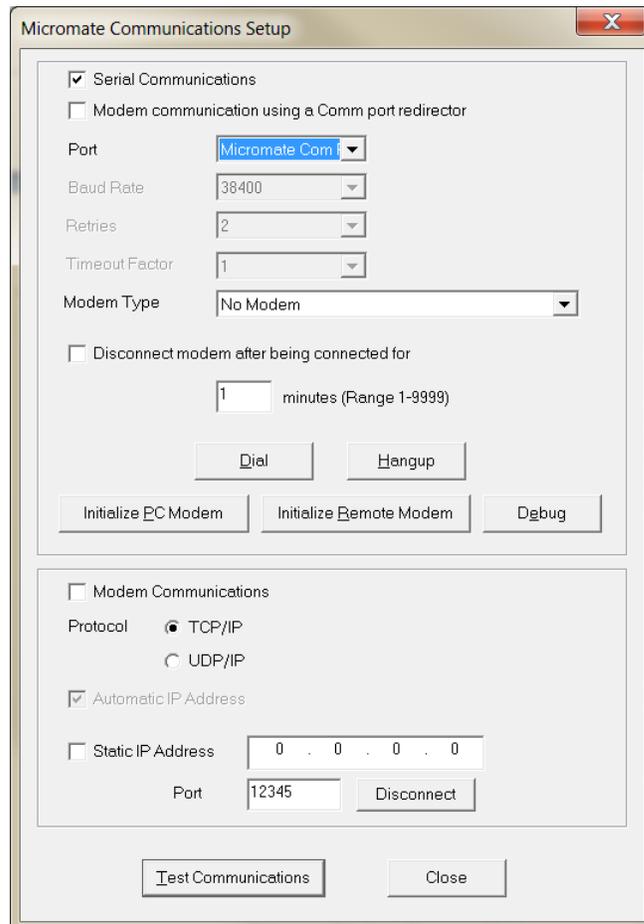
**Series III Communications: UDP/IP
Modem Communications**

**Series III Communications: TCP/IP
Modem Communications**

**Series IV Communications Setup: UDP/IP
Ethernet/Modem Communications
Automatic IP Address**

**Series IV Communications Setup: TCP/IP
Ethernet/Modem Communications
Automatic IP Address**

Series IV Communications Setup: TCP/IP Ethernet/Modem Communications Static IP Address

Series IV Communications Setup: UDP/IP Ethernet/Modem Communications Static IP Address

4.4.5   Configure TCP/IP Communications

With **Auto Call Home** and the seismograph(s) configured, select **Auto Call Home > Start** and then the **TCP** radio button.
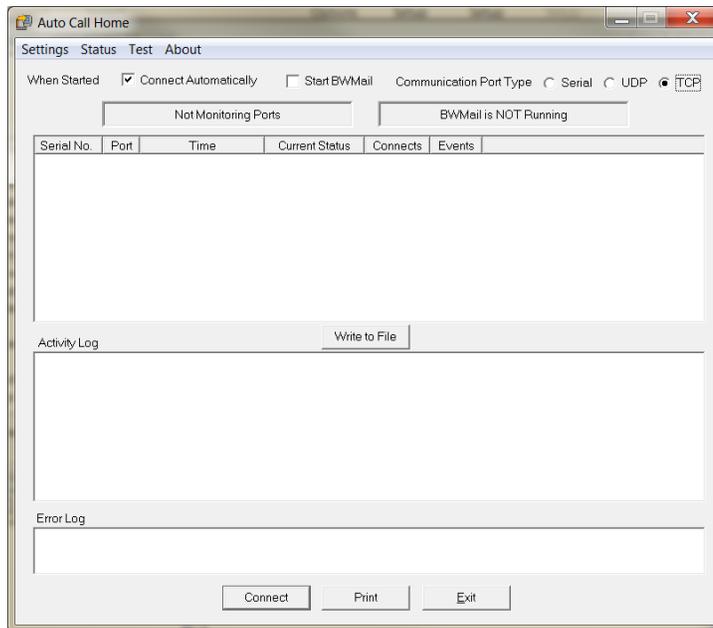
(1) **Communications**

i   Select the Settings option from the Communications menu.

ii   Enter the Host Computer IP address running the Blastware program.

iii Enter the Port Number that will be receiving the call from the seismographs.

iv   Save these settings by clicking the OK button. Select Exit.
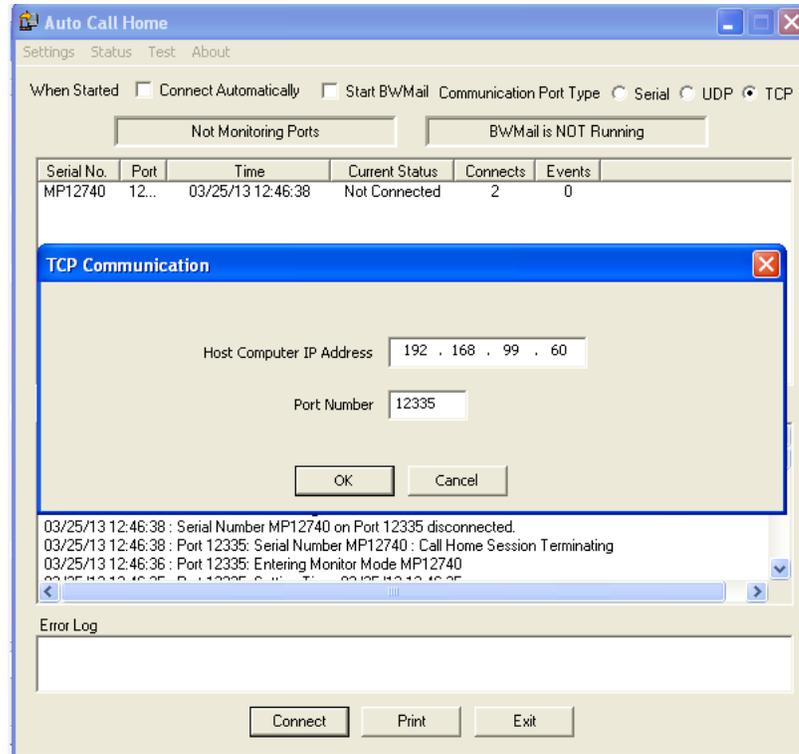
(2) **Raven Modem Setup**

    i The Raven X modem must also be configured for TCP communication. Start the Acemanager program and connect to the modem using the provided URL.

    ii Select the Serial tab.

    iii The settings should be as outlined below except where noted:
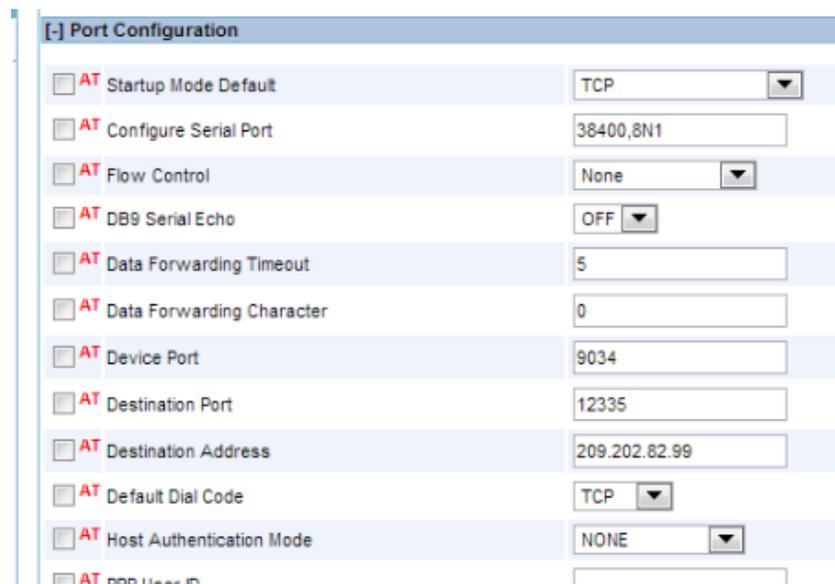
    a.   The Destination Port must be the same as what was entered in Auto Call Home.

> **b.** The Destination Address is the IP address of the device receiving the call from the modem.
> **c.** If the modem can reach the host computer running the Blastware program directly, the IP address would be the IP address of the host computer.
> **d.** If the modem connects to a switch first which in turn forwards the messages to the host computer, then the IP address is the IP address of the switch.

> iv Save these changes.

> v Place the seismograph into monitor mode

> vi Start the Auto Call Home program.

> **vii** Trigger the seismograph and ensure the event file is transferred.

> **viii** To add additional units repeat the above procedure.

NOTE: All modems MUST be configured to the same IP address and port number.

4.4.6 Configure Auto Call Home UDP/IP Communications

UDP/IP communications refers to a network and transport protocol used for exchanging data over the Internet. The Blastware feature **Auto Call Home** UDP/IP facilitates communications with remote packet data modems, such as the Airlink Raven, on a PC or server, through a conventional Internet connection. This feature of Blastware is used to transfer data from single or multiple Instantel **Series III** and **Series IV** units at faster rates within a more stable and less costly configuration then analog networks (Serial Communication). The analog data is converted for transfer over a data network and the Internet; in the most efficient configuration, the modems need to address a static IP address at the destination PC or server to facilitate transfer of this data over the Internet, through a standard Internet connection at the destination PC/server.

The **Auto Call Home** UDP/IP program allows you to connect with up to two hundred and fifty six remote units, and communicate with twenty five of those units simultaneously. Whenever an event occurs, each monitor automatically calls your PC and downloads the event data into a specified directory that is created using the unit serial number of the monitoring system. This information includes the unit serial number, communication port, and the date and time. This part of the **Auto Call Home** feature is useful when you are monitoring more than the four available communication ports on your PC. You can view activity and error logs of the monitoring and data acquisition as it occurs.

Auto Call Home UDP/IP saves the original setup file for future use, and automatically sends the stored setup file to a remote monitor through the standard internet connection, once the monitor establishes communication with the PC or server.

Note: Contact your computer system administrator or trained technician to assist you in router configuration, communications and Windows Firewall settings for **Auto Call Home** UDP/IP and TCP/IP.

a. Setting up an Airlink Raven Modem for Auto Call Home UDP/IP

Instantel encourages the use of the Airlink Raven modem. The Airlink Raven has a high-speed data transfer rate that supports the **Instantel® Series III** monitors, serial number 6000 and higher. Since it uses Internet Protocol (IP) to transfer data from the monitor to a computer operating the **Instantel® Blastware® Software**, the communication link is always present, and long distance charges no longer apply. The service plans differ from analog plans in that billing is commonly done based on the quantity of data transferred in a given period.

These installation instructions describe the procedures for installing an AirLink Raven modem that will support communication with a remotely installed Instantel vibration monitor. For the purpose of these installation instructions, it is assumed that the office PC already has an internet connection and that communications do not pass through an interoffice server or firewall. If

communications do pass through an interoffice server or firewall, please contact your IT person to make the proper adjustments.

<u>Tools and Material Required:</u>

1. Purchase and activate the telephone service package; this is a regular data call package from either Bell Mobility or with Verizon Wireless. Also, request a static IP address from the local telephone service provider that you have selected.
2. AirLink Raven modem.
3. Power source for the AirLink Raven modem (a 12 volt car or marine battery and/or a solar panel).
4. Null modem cable (**Instantel®** part number 718A3701).
5. Install the AirLink software. This software can be downloaded from AirLink's web site, or from the modem manufacturer's website at www.sierrawireless.com.
6. Download and install the ACEmanager™ software to program and trouble shoot the modem. This software can be downloaded from AirLink's web site, or from the modem manufacturer's website at www.sierrawireless.com. Below are screen captures of the **Info**, **Status** and **Common** screens from the ACEmanager to Raven Modem setup software. Question marks (**?**) are placed next to the fields that need information input, or represent areas that may particularly cause difficulties during setup. If you are required to call the Instantel Technical Service Team for assistance, please have this document, the ACEmanager software running with the modem attached.

ACEmanager Info Dialog (Phone Number is input in the Common dialog)**:**

GROUPS	MODEM DATA			PRINTABLE VIEW
	AT	Name	Value	
INFO	*NETPHONE	Phone Number		**?**
STATUS	*DEVICEID	Device ID	0x000002650044398F	
COMMON		Modem Name	60886a4c	
Misc		Modem EID/IMEI	60886A4C	
Serial				
TCP		Modem Type	Raven X EV-DO	
UDP				
DNS	*ETHMAC	Ethernet Mac Address	00143E0166B1	
Dynamic IP				
PPP/Ethernet	I1	ALEOS Software Version	V4221_3.4.4.002 Mar 6 2009	
PassThru				
SMTP		Modem Hardware Configuration	080d00000003000000000000000000	
Other		Modem Software Version	p2006002,31394 [Aug 09 2007 14:52:34]	
Firewall				
Port Forwarding		Modem Hardware Version	MC5725 Rev 2.0 (2)	
LOGGING		Boot Version	3.0.4	
REPORT		MSCI Version	5	

ACEmanager Status Dialog (Phone Number is input in the Common dialog)**:**

GROUPS	MODEM DATA			PRINTABLE VIEW
INFO	AT	Name	Value	
STATUS	*NETIP	Network IP		?
COMMON	*NETSTATE	Network State	Network Ready	
Misc	*NETOP	Carrier	Bell Mobility	
Serial	*NETSERV	Network Service Type	1X, EV-DO Rev.A	
TCP UDP	*NETCHAN	Channel	350	
DNS	*NETRSSI	RSSI (dBm)	-92	
Dynamic IP	+ECIO	EC/IO	-1.5	
PPP/Ethernet PassThru		Host Mode	AUTO UDP	
SMTP		Host Signl Level	DCD: HIGH DTR: LOW DSR: HIGH CTS: HIGH RTS: LOW	
Other Firewall	*NETERR	Network Error Rate	255	
Port Forwarding		Network Bytes Sent	1136	
LOGGING		Network Bytes Rcvd	548	
REPORT		Host Serial Bytes Sent	0	
Server 1		Host Serial Bytes Rcvd	0	
1X/EV-DO		Network IP Packets Sent	3	
		Network IP Packets Rcvd	4	
TELEMETRY		Host IP Packets Sent	0	
ADDR LIST		Host IP Packets Rcvd	0	
IPSEC	+PRL	PRL Version	31394	
GRE	*PRLSTATUS	PRL Update Status	0	
		Radio Module Internal Temperature	0	
		Number of System Resets	678	
		IP Reject Count	0	
	*POWERIN	Power IN Voltage	14.25	
	*BOARDTEMP	Board Temperature	24	

ACEmanager Misc Dialog:

GROUPS	MODEM DATA				PRINTABLE VIEW
INFO	AT	Name	Value	New Value	
STATUS	*DATE	Date and Time	09/21/2009 13:58:35		
COMMON	OPRG	Enable Over-the-Air Programing	1	1-ON	
Misc	*NETPHONE	Phone Number			?
Serial TCP		Force Static IP			?
UDP DNS	*DPORT	Device Port	12349	12349	?
Dynamic IP	*NETUID	Network User ID			?
PPP/Ethernet PassThru	*NETPW	Network Password	12345		?
SMTP Other	*NETALLOWZEROIP	Allow Last Byte of net IP = Zero	1	1	
Firewall Port Forwarding	*HOSTPAP	Request PAP	0	0-NO	
LOGGING	S53	Destination Address			?
REPORT	S53	Destination Port	12349	12349	?
Server 1	S53	Default Dial Code	P	P-UDP	
1X/EV-DO		Enable Event Reporting	0	0-Turn Off ER	
TELEMETRY		Enable AceWeb	1	1-Host Only	
ADDR LIST					
IPSEC					
GRE					

ACEmanager Serial Dialog:

GROUPS	MODEM DATA				PRINTABLE VIEW
INFO	AT	Name		Value	New Value
STATUS	S23	Configure Serial Port		38400,8N1	38400,8N1
COMMON	\Q	Serial Port Flow Control		0	0-None ▾
Misc	S50	Data Forwarding Timeout		1	1
Serial	S51	Data Forwarding Character		0	0
TCP	E	DB9 Serial Echo		0	0-OFF ▾
UDP	E	Telnet Echo		0	0-OFF ▾
DNS	V	AT Verbose Mode		1	1-Verbose ▾
Dynamic IP	&D	DTR Mode		0	0-Ignore DTR ▾
PPP/Ethernet	S211	DTR Mode		1	1-Ignore DTR ▾
PassThru	&S	Assert DSR		1	1-In Data Mode ▾
SMTP	&C	Assert DCD		1	1-In Data Mode ▾
Other	*CTSE	Enable CTS to Indicate Network Coverage		0	0-Disabled ▾
Firewall	Q	Quiet Mode		1	1-ON ▾
Port Forwarding	X	Call Progress Result Mode		1	1-ON ▾
LOGGING	*NUMTOIP	Convert 12 digit Number to IP		0	0-Use as Name ▾
REPORT Server 1					
1X/EV-DO					
TELEMETRY					
ADDR LIST					
IPSEC					
GRE					

ACEmanager TCP Dialog:

GROUPS	MODEM DATA				PRINTABLE VIEW
INFO	AT	Name	Value	New Value	
STATUS	S0	TCP Auto Answer	2	2-Telnet Server ▾	
COMMON	S7	TCP Connect Timeout	30	30	
Misc	TCPT	TCP Idle Timeout	0	0	
Serial	TCPS	TCP Idle Timeout Secs	0	0-Minutes ▾	
TCP	S221	TCP Connect Response Delay	0	0	
UDP	S60	Telnet Echo Mode	0	0-No Echo ▾	
DNS	*ENQ	Enable ENQ on TCP Connect	0	0-Disable ▾	
Dynamic IP					
PPP/Ethernet					
PassThru					
SMTP					
Other					
Firewall					
Port Forwarding					
LOGGING					
REPORT Server 1					
1X/EV-DO					
TELEMETRY					
ADDR LIST					
IPSEC					
GRE					

ACEmanager UDP Dialog:

ACEmanager DNS Dialog:

ACEmanager Dynamic IP Dialog:

GROUPS	MODEM DATA			PRINTABLE VIEW
INFO	AT	Name	Value	New Value
STATUS	*MODEMNAME	Modem Name	60886a4c	
COMMON	*DOMAIN	Domain		?
Misc	*IPMANAGER1	IP Manager Server 1 (IP Adrs)		?
Serial				
TCP	*IPMGRUPDATE1	IPMServer1 Update (Minutes)	0	0
UDP				
DNS	*IPMGRKEY1	IPMServer1 Key	********	?
Dynamic IP				
PPP/Ethernet	*IPMANAGER2	IP Manager Server 2 (IP Adrs)		?
PassThru				
SMTP	*IPMGRUPDATE2	IPMServer2 Update (Minutes)	0	0
Other				
Firewall	*IPMGRKEY2	IPMServer2 Key	********	?
Port Forwarding				
LOGGING				
REPORT				
Server 1				
1X/EV-DO				
TELEMETRY				
ADDR LIST				
IPSEC				
GRE				

ACEmanager PPP/Ethernet Dialog:

GROUPS	MODEM DATA			PRINTABLE VIEW
INFO	AT	Name	Value	New Value
STATUS	*HOSTPRIVMODE	Use Private IP	0	0-Use Public IP
COMMON	*HOSTPRIVIP	Host Private IP		?
Misc		DHCP network mask		?
Serial				
TCP	*HOSTPEERIP	Modem Local IP		?
UDP				
DNS	*HOSTNETMASK	Ethernet Host network mask	0.0.0.0	0.0.0.0
Dynamic IP				
PPP/Ethernet	*HOSTAUTH	Host Authentication Mode	0	0-NONE
PassThru	*HOSTUID	Host User ID		?
SMTP				
Other	*HOSTPW	Host Password		?
Firewall				
Port Forwarding	*DHCPSERVER	DHCP Server Mode	0	0-Disabled
LOGGING		Host Network 2	0.0.0.0	0.0.0.0
REPORT		Host network mask 2	255.255.255.255	255.255.255.255
Server 1				
1X/EV-DO		Host Network 3	0.0.0.0	0.0.0.0
TELEMETRY		Host network mask 3	255.255.255.255	255.255.255.255
		Default Interface	0	0-Use whats connected
ADDR LIST		Default IP		?
IPSEC				
GRE				

ACEmanager PPP/Ethernet Dialog:

ACEmanager SMTP Dialog:

ACEmanager Other Dialog:

ACEmanager Firewall Dialog:

ACEmanager Post Forwarding Dialog:

GROUPS	MODEM DATA			PRINTABLE VIEW
	AT	Name	Value	New Value
INFO		Number of PF Entries	0	0
STATUS		Public Port 1	0	0
COMMON		Host I/F 1	4	4-Ethernet
Misc / Serial		Host IP 1	0.0.0.0	0.0.0.0
TCP / UDP		Private Port 1	0	0
DNS / Dynamic IP		Public Port 2	0	0
PPP/Ethernet / PassThru		Host I/F 2	4	4-Ethernet
SMTP / Other		Host IP 2	0.0.0.0	0.0.0.0
Firewall / **Port Forwarding**		Private Port 2	0	0
LOGGING		Public Port 3	0	0
REPORT		Host I/F 3	4	4-Ethernet
Server 1		Host IP 3	0.0.0.0	0.0.0.0
1X/EV-DO		Private Port 3	0	0
TELEMETRY		Public Port 4	0	0
ADDR LIST		Host I/F 4	4	4-Ethernet
IPSEC		Host IP 4	0.0.0.0	0.0.0.0
GRE		Private Port 4	0	0
		Public Port 5	0	0
		Host I/F 5	4	4-Ethernet
		Host IP 5	0.0.0.0	0.0.0.0
		Private Port 5	0	0

7. Load and write the script file to the modem as per the manufacturer's instructions. Reset the modem or disconnect/reconnect it the power to ensure that the script file is loaded properly.
8. The Airlink Raven modem script file supplied by **Instantel®** Technical Services.
9. Latest version of the **Instantel® Blastware Software**. Download the latest version from the Instantel website.
10. **Instantel® Series III** seismograph (to use the Call home feature, use a **Series III** unit with a serial number higher than 6000).

Monitor Setup:

1. Refer to the operator manual of your **Instantel®** vibration monitor to set the following communication options: **Series III** unit - the unit should be set to communicate at 38400 baud and the serial connection to DIRECT.

Installation:

2. Refer to the manufacturer's instructions for setting up and attaching the AirLink Raven modem to the COM 1 port of your computer.
3. Install and run the AirLink software. This software will prompt for the following information obtained from your service provider (Refer to Material's Required, Item 1):

        a. Unit's unlock code (also known as the master subsidy Lock Code),

        b. the phone number,

        c. the SID and NID (typically, the SID = 0, and the NID = 65535),

        d. the NAI (the account e-mail address), and

        e. the password.

4. Set the modem to "Home Preferred" and "Public Internet". Next, update the PRL (Preferred Roaming List - This is a list of information that resides in the memory of a digital phone. It lists the frequency bands the phone can use in various parts of the country). If the modem returns an error, bypass this step. The Modem will now attempt a connection with the service provider.

5. After a successful connection, disconnect the modem (with the antenna installed) from the computer. Four lights on the modem should be either on or flashing, a) Chan, b) Link, c) Reg., and d) Pwr. The RSSI (Receive Signal Strength Indicator) may also be indicating the level of coverage.

6. Install AirLink Wireless ACE 3G software. This software will load the communication protocols into the modem.

7. Run the AirLink Wireless ACE 3G software. Click on CONNECT and then select the UPD (User Datagram Protocol) protocol. This protocol provides a procedure for application programs to send messages to other programs with a minimum of protocol mechanism.

8. Enter the IP (Internet Protocol) address and the password. Select OK. The software will attempt to communicate with the modem.

9. Select the "Load" icon and scroll to find the "Raven 1X modem" script file. Select the WRITE button. This will send the information to the modem.

10. Select menu item Blastware > Communications > Static IP. Enter the IP Port Address (example: 12345). Select the Test Communications button.

4.4.7   Configure Internet UDP/IP Communications

To access the **Auto Call Home** IP Communications Setup dialog, select the **Remote Access Menu** > **Auto Call Home** > **Start** menu item. Use your cursor to select **UDP** at the top of the dialog box before selecting the **Settings Menu** > **Communications** option.

Message Window
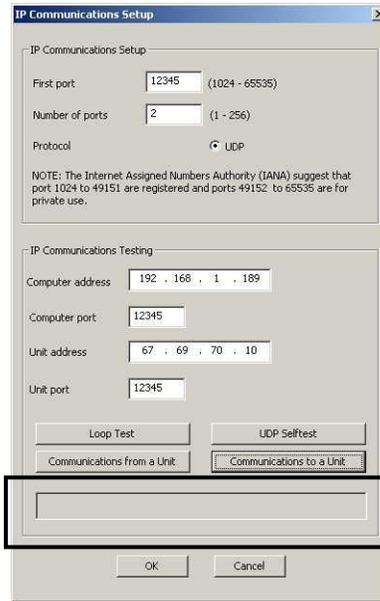
(1) **First Port**

Enter the starting port that you are going to be monitoring within the range specified (1024 – 65535).

(2) **Number of Ports**

Enter the number of ports that you are going to be monitoring, that will have units calling in and downloading data onto the PC. The number of Ports is equivalent to the number of monitors using **AutoCall Home.**

(3) **Protocol UDP**

User Datagram Protocol (UDP) is the only protocol supported for **Auto Call Home** IP. UDP is a high-level communication protocol that coordinates the one-way transmission of data in a packet data network. The UDP protocol coordinates the division of files or blocks of data information into packets and adds sequence information to the packets that are transmitted during a communication session using Internet Protocol (IP) addressing. This allows the receiving end to receive and re-sequence the packets to recreate the original data file or block of data that was transmitted. UDP adds a small amount of overhead (control data) to each packet relative to other high-level protocols such as TCP.

(4) **Computer Address (For Testing Only)**

To obtain your computer **IP Address**, click on the Windows **Start** > **Programs** > **Run** and type **CMD** in upper or lower case, in the text block that appears. The **Command Prompt** window will appear. At the blinking horizontal cursor after *C:\>directory*, type **IPCONFIG** in upper or lower case and select **OK**. The **IP Address**, **Subnet Mask**, and **Default Gateway** are listed. Record the **IP Address** for later use – this address will be used to setup the **Auto Call Home** UDP/IP communications.
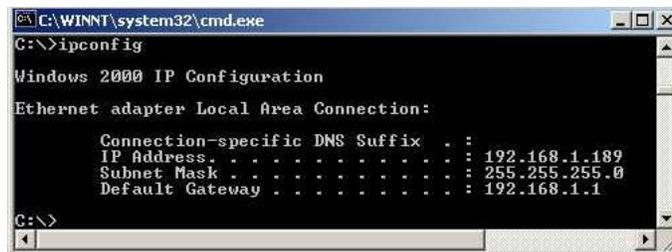
(5) Computer Port

Input a **Computer Port** number within the range specified (1024 – 65535) – this number must match the number entered into the **First Port** field.

(6) Unit Address

This is the address of the Modem attached to the unit.

(7) Unit Port

The **Auto Call Home UDP/IP** software is capable of detecting the port on which each packet data modem will communicate.

(8) Loop Test

To ensure that data is able to be sent to and from the PC to the Modem, and vice versa, perform a **Loop Test.** To do this, you must disconnect the modem serial communication connector and short the circuit of female connector pins 2 and 3, before selecting performing the **Loop Test**.

The **Loop Test** sends from 10 to 1400 bytes. It starts by sending 10 characters, or bytes, and increments the number of characters by 10 each iteration until 1400 characters has been reached. It then goes back to 10.

You can cancel the loop test at any time by clicking on the **Cancel Loop Test** button. Watch the **Message Window** for the software response to the **Loop Test**.

    i Message from the Loop Test:
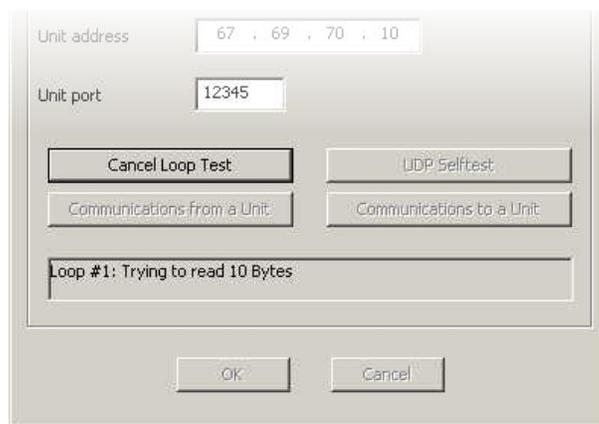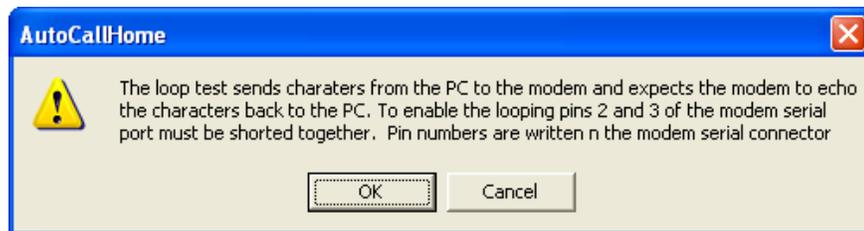
ii Blastware is reading the response of the 10 Bytes that were sent:
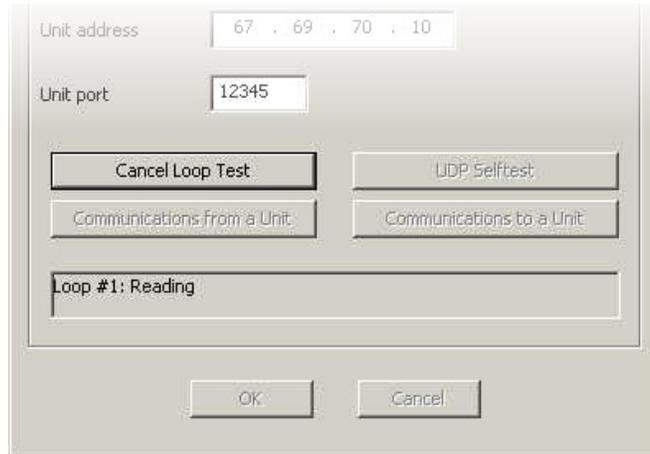
iii The message window indicates that 10 Bytes were successfully sent and read – if you receive an error, check the modem connections, setup and status, and ensure that each piece of equipment is turned on:
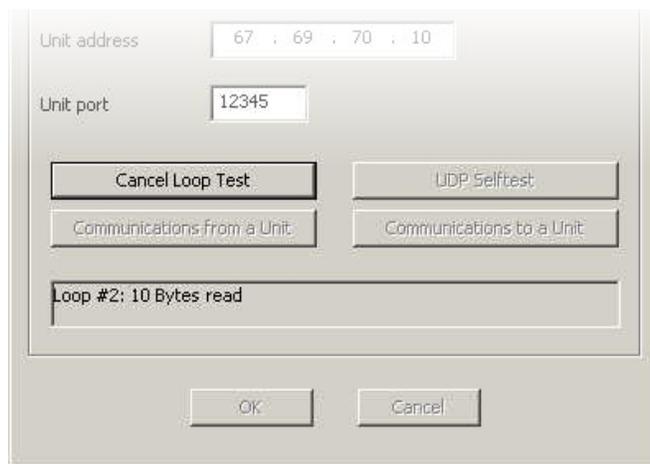
iv If the Loop Test is not successful, the window will prompt you with a series of messages, similar to the following:

"Writing 100 bytes"

"Loop #10: Trying to read 100 Bytes"

"100 of 100 chars were read correctly"

"100 of 200 Error at char 101"

The last line indicates an Error, stating that character 101 does not match what was sent out. If a Loop Test is not able to be performed at all, the message "Connection failed" is displayed, indicating that the software could not open the communication socket. Review and check the status and setup of the modem.

(9) **Communications from a Unit**

Ensure that the modem is setup up and working properly. To test the communications from a unit, first turn the unit off, and then manually wake up the unit, wait 10 seconds and click on **OK**.
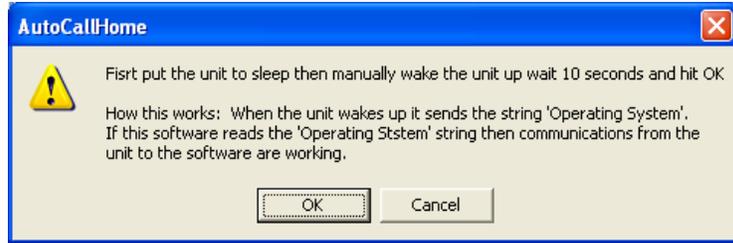
NOTE: Do not turn the Series IV monitors Off – the monitors will not communicate.

    i When the unit is initially turned on, it will display that it is "Connecting" and sends the Operating System, as shown in the message box below:
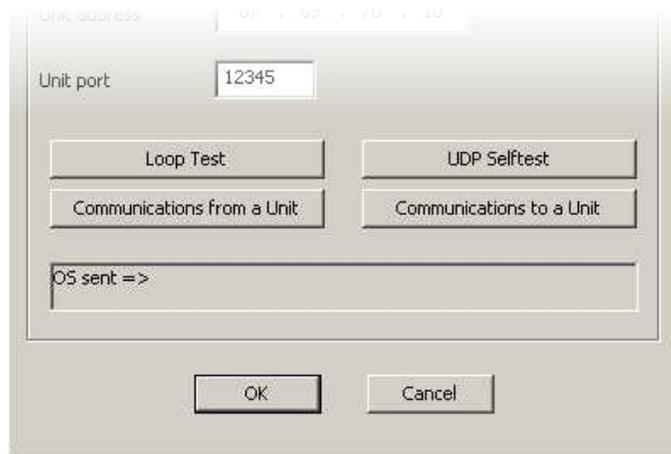
    ii After the Operating System has been successfully read by Auto Call Home, you will be prompted with the message and a window dialog, as shown below – click on OK.
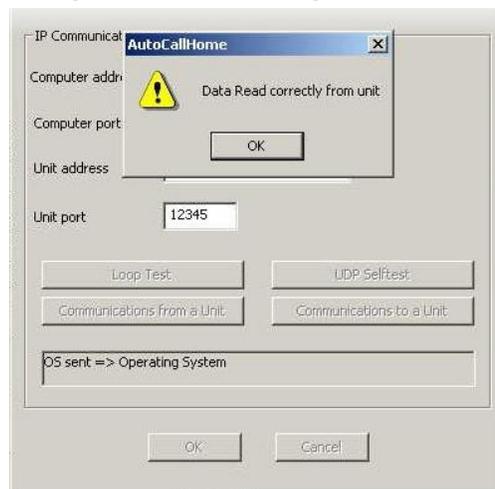
    iii If the unit is unable to successfully send the Operating System, the following dialog will appear. If you receive an error, check the modem connections, setup and status, and ensure that each piece of equipment is turned on:
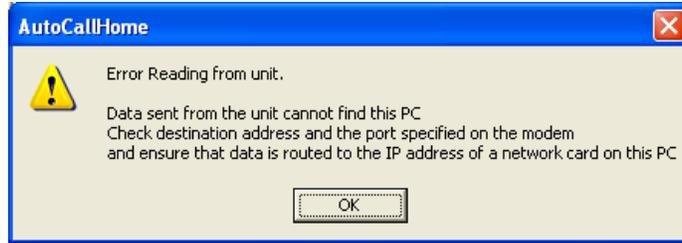
(10) **Communications to a Unit**

Communications to a Unit tests the communication link from the PC to the unit. Turn off the unit for approximately 10 seconds then click on **Communications to a Unit**. A dialog will appear instructing you of the steps to follow. Click **OK**.

i Click OK on the new dialog that appears. The unit will turn on and display a "Connecting" message. If the unit does not wake up within 20 seconds, the follow the directions on this dialog:
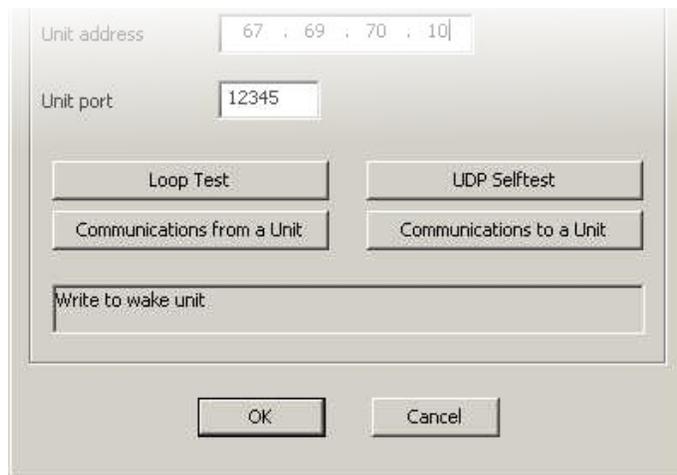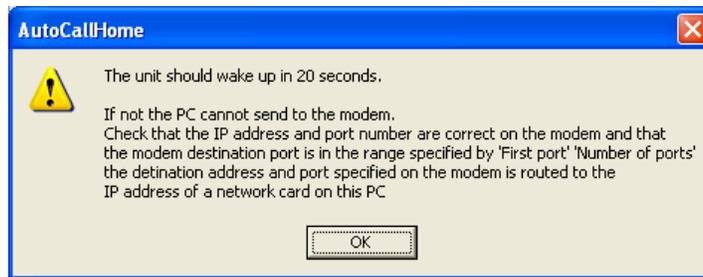
4.4.8 Configure Auto Call Home™ Serial Communications

Serial communication refers to when data is transmitted bit-by-bit. If you wish to download events from several monitors, you can stagger the call times to ensure that there is no overlap or get a multiple ComPort box and have multiple modems at the computers end. This feature also allows you to connect with up to twenty communication ports on your PC and remotely gather data from multiple vibration monitors simultaneously. You can view activity and error logs of the monitoring and data acquisition as it occurs. Whenever an event occurs, each monitor automatically calls your PC and downloads the event data into a specified directory. This information includes the unit serial number, communication port, and the date and time. This part of the **Auto Call Home** program is useful when you are monitoring more than the four available communication ports on your PC.

(1) **Auto Call Home using Serial Communications**

To access the **Auto Call Home Serial Communications Setup** dialog, select the **Remote Access Menu** > **Auto Call Home** > **Start**. Use your cursor to select **Serial** at the top of the dialog box before selecting the **Settings Menu** > **Communications** option.
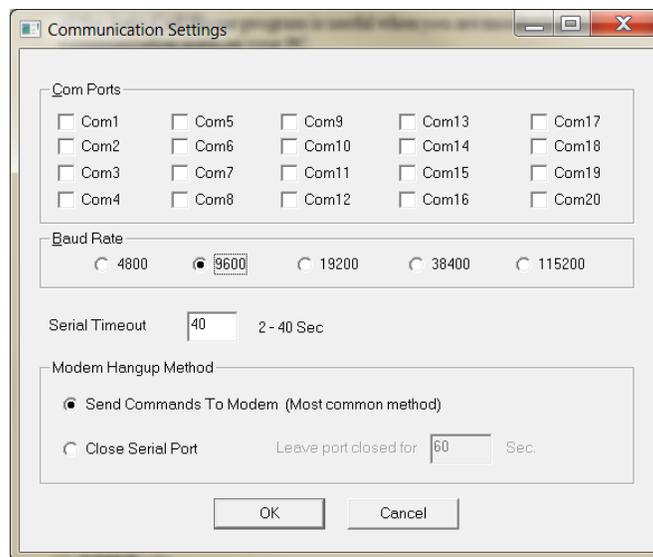
(2) **COM Ports**

Select Settings from the main menu bar of the **Auto Call Home** dialog box, then click on **CommPorts** to display the **Communications Settings** dialog box. Within this dialog you can indicate which **CommPorts** you would like to monitor for activity by placing a checkmark in the box beside each port, from 1 to 20.

(3) **Baud Rate**

Place a checkmark next to the proper **Baud Rate** setting – this setting must match the setting of the communications ports you are monitoring with the **Auto Call Home** program. The **Baud Rate** determines the speed that the data transfers, with 38400 (Series III) or 115200 (Series IV) being the highest, whereas a setting of 9600 is slower, but more stable.

(4) **Modem Hang Up Method**

You can instruct the modem to hang up after sending the data, which is the most common method, or you can choose to **Close Serial Port** after a specified number of seconds by entering a number in the text field next to **Leave Port Closed For.**

Select on of the two **Modem Hang up Methods:**

1) **Send Commands to Modem** – AT commands sent to the modem to hang up, or

2)   **Close Serial Port** – Some modems will not respond to the AT hang up command and require the serial port be closed to trigger a hang up. The port is closed for the specified number of seconds before it is opened again. While the port is closed it is not being checked for units calling home.

Select **OK** to approve the changes, or **Cancel** to exit without making changes.

b. Start Auto Call Home

Start the **Auto Call Home** program by selecting the **Remote Access Menu** in Blastware, and then **Auto Call Home > Start**. From here you are able to access important menu items for the configuration of **Auto Call Home**. Additionally, this is where you will set which type of communications protocol you will be using, **Serial** or **IP.** Prior to setting up **Auto Call Home**, determine which option you are going to be using by reading the overview and descriptions in the sections that follow..

> **Note:** You must select **Connect** and have this window open any time that you want the software to monitor particular COM Ports for incoming calls.

The Start command opens the **Auto Call Home** dialog box and allows you to monitor your serial or IP ports. As long as the **Auto Call Home** dialog box remains open, your PC can receive messages. If you prefer, you may minimize the dialog box. To stop monitoring the serial ports click on **Disconnect**, or **Exit** to disconnect and return to the main Blastware window.

> **Note:** Blastware Mail and **Auto Call Home** can not share the same communications serial port.
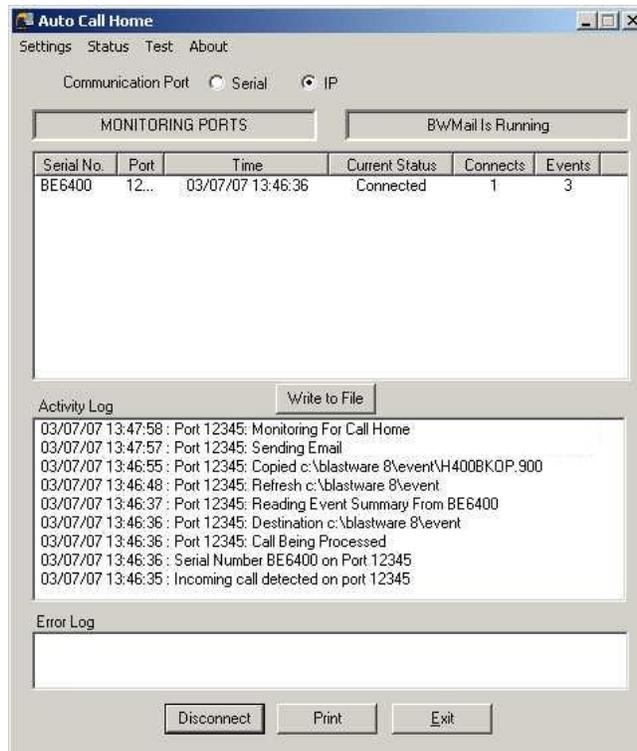
(1) **Communications Port**

i **Serial**

Serial communication refers to when data is transmitted bit-by-bit. For a complete description of the **Auto Call Home** Serial Communications protocol, refer to Subsection D of this Section.

ii **IP (Internet Protocol)**

IP communications refers to a network and transport protocol used for exchanging packets of data over the Internet. For a complete description of the **Auto Call Home** IP Communications protocol, refer to Subsection C of this Section.

(2) **Serial No.**

Displays the active unit that is calling the PC.

(3) **Port**

Indicates the port which the unit is calling in on.

(4) **Time**

Displays the time which the unit contacted the PC.

(5) **Current Status**

Indicates whether or not the unit has made a connection or is not connected.

(6) **Connects**

Displays the number of times the unit has successfully connected.

(7) **Events**

Displays the number of Events that have been successfully copied to the PC.

(8) **Write to File**

Use this command to save a text file of the **Activity Log**.
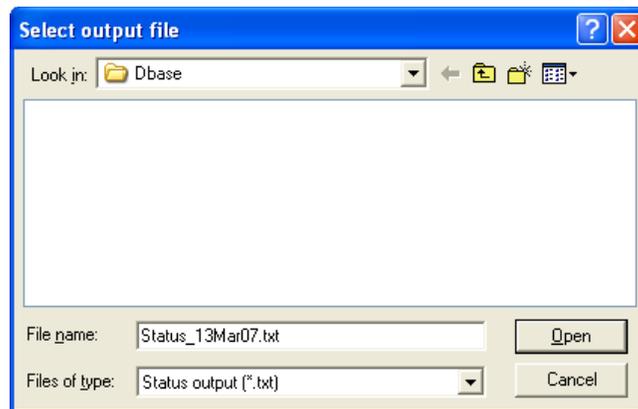
(9) **Activity Log**

The **Activity Log** displays a current log of activity including incoming calls, serial number(s), and the port(s), that the unit(s) is calling in on. Additionally, it indicates the files that are being transferred and emailed with their destination directory. The **Activity Log** returns to **Monitoring for Call Home** status once the download from a unit is completed.

(10) **Error Log**

The **Error Log** displays units that were not able to successfully call into the PC.

(11) **Connect/Disconnect**

Click on the **Connect/Disconnect** to start or stop communicating with the unit(s). When you select **Connect**, the units that are setup to call home will automatically be displayed in the **Serial No.** column.

(12) **Print**

After a unit has connected and sent the Events and connection information, you are able to print out the **Activity** and **Error Log** details by clicking on **Print**.

(13) **Exit**

Click on **Exit** to leave the **Auto Call Home** program.

There are three communication options within Auto Call Home to remotely access data from the monitor, 1) Serial (Communications), and 2) UDP/IP, and 3) TCP/IP.

   i Once all setups for Auto Call Home are completed, it is strongly recommended that communications be checked before the unit is placed in the field. Some modem/phone combinations may require parameter changes to function properly. Refer to Chapter 6 for more information on setting up modems and communications settings.

   ii Auto Call Home is supported by Blastmate III or Minimate Plus units with a serial number of 6000 or greater.

c. Status

Select the **Status** to access the Event Copy status function.

(1) **Event Copy**

Click on **Event Copy** to access the Event Copy Status dialog box. This window displays the status of each communications Port, the Serial Number of the unit associated with that Port, and the time and date of each connection.
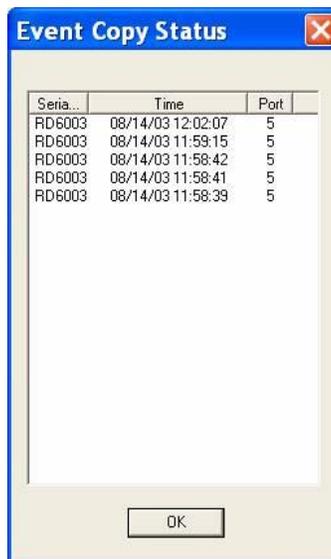
d. Test

Use the **Test** feature of **Auto Call Home** to determine if any of the Events that have been copied were created due to a false trigger. You may also email the files, using the parameters set in Blastware Mail.

Sample of a Valid Event –the waveform signature is almost equivalent in the positive and negative baseline.

Sample of a False Trigger – the entirety of the Event response is positive.
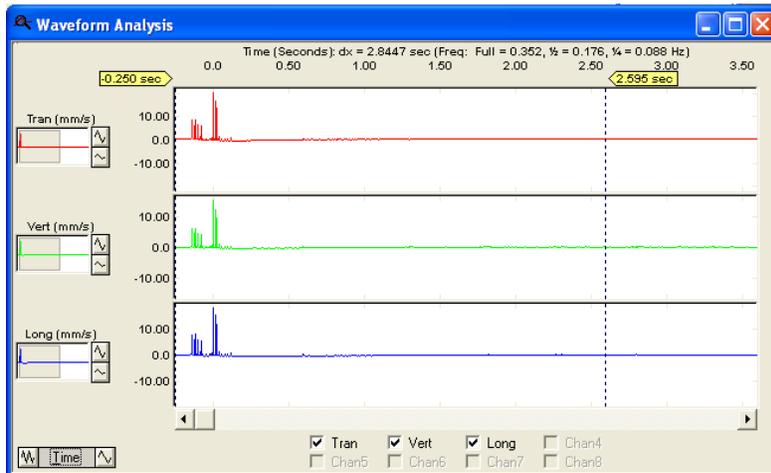
(1) **Test Auto Call Home Processing**

   i **Selecting Events to Test**

Select **Test** from the **Auto Call Home** main menu, and then click on **Processing**. The **Test Auto Call Home Processing** dialog will appear. Click on the button labeled **Select Events**, and browse your computer for files that you wish to test for false triggers. Highlight the files with your cursor and select **Open**.
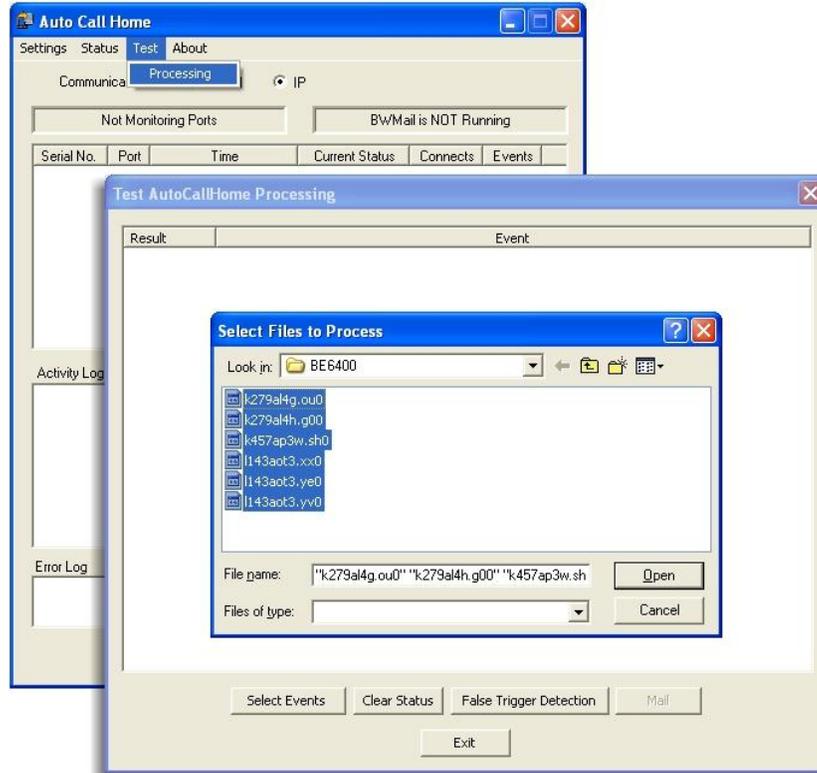
ii **False Trigger Detection (Series III Only)**

Once the files are loaded into the **Processing** window you will notice that the **Result** indicates that they have not been tested. Click on the button labeled **False Trigger Detection** – a software algorithm will test the opened Events. The **Result** window will indicate which Events are valid, and which ones were **False Triggers**.
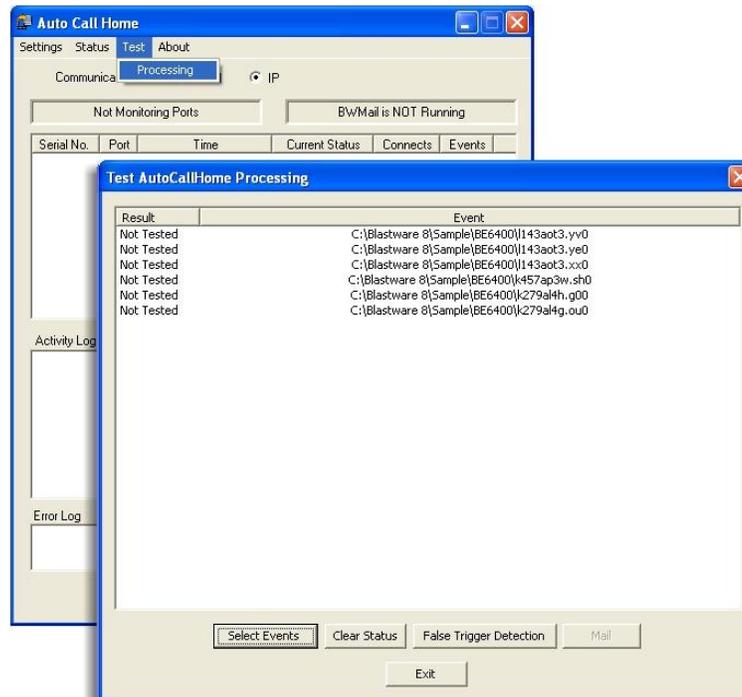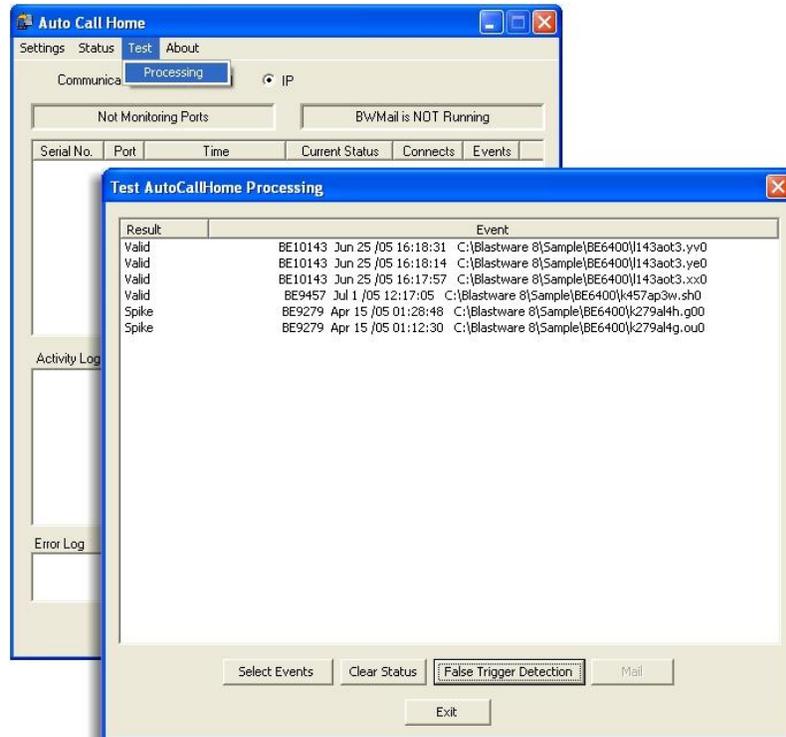
e. Test Modem

This feature is provided to enable you to further test the modem you are using with the remote monitor. Enter a text string of modem commands, and Blastware writes it to the serial port. You can then evaluate the modems operation. If you require a more advanced testing tool, use a program such as HyperTerminal, supplied with the Windows operating system.

To access the Modem Test dialog box, select Remote Access > AutoCall Home > Test Modem.
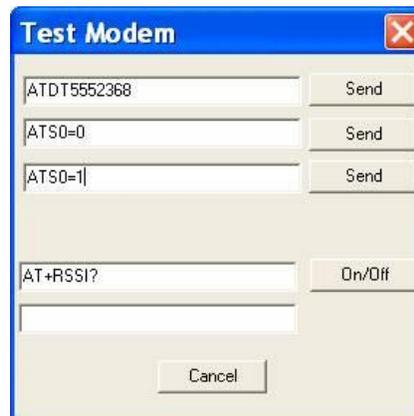
Example test strings to send to the modem:

ATDT5552368   Dial Jim Rockford's home phone!

ATS0=0   Auto answer off

ATS0=1   Auto answer on first ring

AT+RSSI?   Test the signal strength of a GSM phone

(1) Test text box

Enter the text string you wish to send to the serial port.

(2) **Send Buttons**

Click on Send to send the text string to the serial port.

(3) **On/Off**

This setting allows you to send a command repeatedly to the modem, and check the response. Enter the command in the upper text box, and click the On/Off button. The button will change to Stop. The response from the modem appears in the lower text box. Click Stop to end the procedure.

(4) **Cancel**

Click Cancel to close the Modem Test dialog box and return to the Main Window.

(5) **Call Home Log**

Every time you use **Auto Call Home** to receive data from a remote monitor, a log of the session is created. The log includes such information as a "Session Timeout" entry if a Call Home connection is terminated from exceeding your "Disconnect after being connected for 'x' minutes" setting. The log file, entitled CALLHOME.LOG, is stored in the directory containing the Blastware executable file (Blastware.exe), and can be printed or edited using a text editor such as Microsoft Notepad. When you select the **Connect** command in **Auto Call Home**, the following warning message appears asking you whether you wish to clear the data currently stored in the Call Home Log:
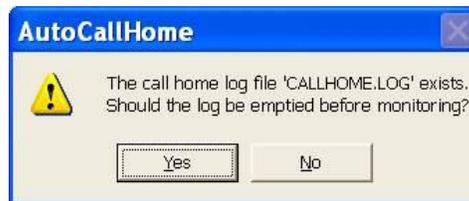
If you do not wish to save the current data, click Yes. The contents of the log will be deleted. If you would like to keep the information currently in the log, click No. The information for the current session will be added to the log.

f. About

If you call Instantel Technical Support, they may request information about the version of **Auto Call Home** that you are currently using. To access the **About** menu select Remote Access > AutoCall Home > Start > **About** to display the following dialog:

4.5 Blastware Mail

Use **Blastware Mail** for automatic distribution of data to a wide variety of devices, such as cellular phones, pagers, PDAs and PCs. This is a separate application that works *together* with the Blastware software, **Auto Call Home**, and your internet connection. After events are automatically downloaded to your PC using the **Auto Call Home**, Blastware Mail automatically sends the results to the e-mail addresses and text-messaging-capable cellular/GSM phones you have specified. BW Mail allows you to create "accounts" in the Edit Mail Delivery dialog box that specify what information will be sent to which email addresses — the entire event file, or selected data for each channel. You can also send different information to different recipients, and choose to time-delay distribution. Cell phone users automatically receive peak information for each channel.