$InfoRad^{^{\circledR}}$ $TAP\text{-}Connect}^{^{^{\intercal}}}$

InfoRad[®], Inc.



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Introduction

InfoRad® **TAP-Connect**TM

General Overview

The InfoRad® TAP-ConnectTM Gateway is a powerful frontend software solution that will process incoming TAP messages directly through the InfoRad Wireless Enterprise SV*, InfoRad Watch-IT ASCII SV, or InfoRad Watch-IT Serial messaging software. Incorporating the TAP-ConnectTM Gateway adds additional capability and versatility to your messaging environment while maintaining a high level of control, security, and reliability over your enterprise messaging network.

Technical Overview

The InfoRad TAP-Connect™ Gateway output is monitored by InfoRad Enterprise SV*, Watch-IT ASCII SV, or InfoRad Watch-IT Serial software for an incoming TAP message. Upon detection and confirmation of a valid address, the message or messages are dispatched to the intended receivers. The InfoRad software will validate, direct and or redirect and log all message transactions to the designated carriers including private systems.

When integrated with the InfoRad Enterprise SV* or Watch-IT ASCII SV software the incoming TAP address to the gateway can be assigned to an individual receiver or group of receivers within the InfoRad Enterprise SV* or Watch-IT ASCII SV software.

When integrated with the InfoRad Watch-IT Serial software the incoming TAP message is parsed for an alarm code or key word(s) and sent to the assigned Receiver(s) or Group(s) programmed to receive messages for the alarm code or key word(s).

Outgoing multiple message protocol support and Route-on-Failure are provided via SNPP, WCTP, SMTP, TAP, including direct serial TAP. InfoRad SV software runs under MS Windows as a Service. If using InfoRad v10.4.0 or later, the InfoRad Messaging Gateway and select SMS providers are supported.

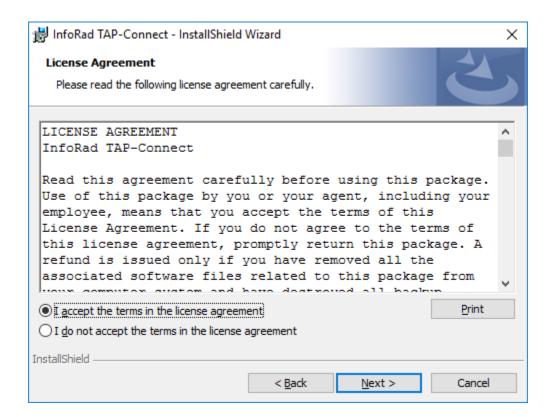
*Note: The InfoRad Enterprise SV software requires a 10-Client license or greater.

Installing InfoRad® TAP-Connect™

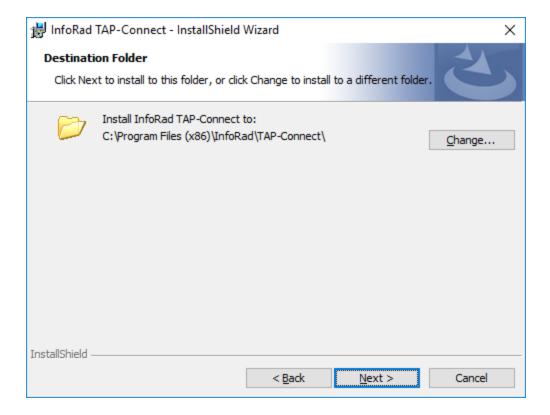
- 1. Make a back-up copy of your InfoRad TAP-ConnectTM disk or download file.
- 2. The Setup should start automatically from CD to install InfoRad® TAP-ConnectTM on your computer hard drive, or run the Setup file located on the CD or in the download files
- 3. The InfoRad® TAP-ConnectTM InstallShield Wizard will appear. Click on the Next button or press Return to continue the installation of InfoRad® TAP-ConnectTM



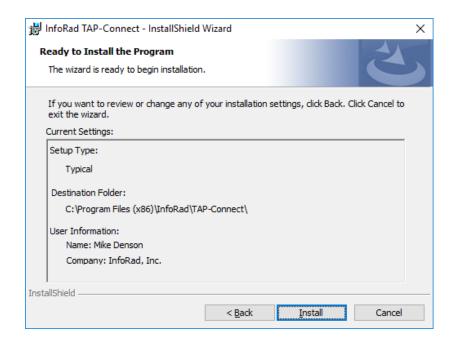
4. The InfoRad® TAP-ConnectTM InstallShield Wizard license agreement screen will appear. Select the "I accept…" option and click on the Next button to continue the installation of InfoRad® TAP-ConnectTM.

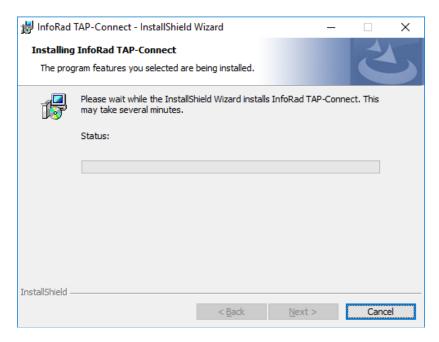


5. You are then prompted for a destination directory for the installation. If you wish to change the directory where the InfoRad® TAP-ConnectTM application will be installed, click on the Change button and select a new directory. Otherwise, click on the Next button to continue the installation process.

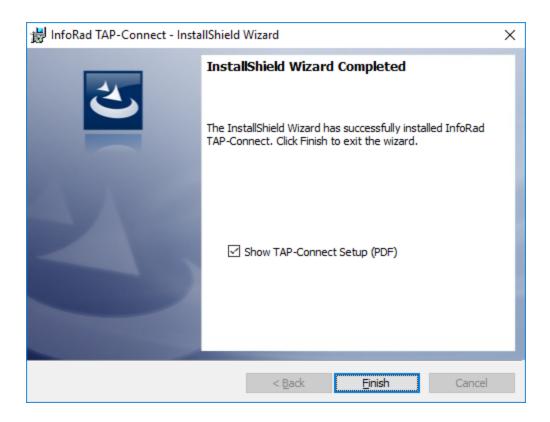


6. Ready to Install! Click Install button and setup will then install the program files.

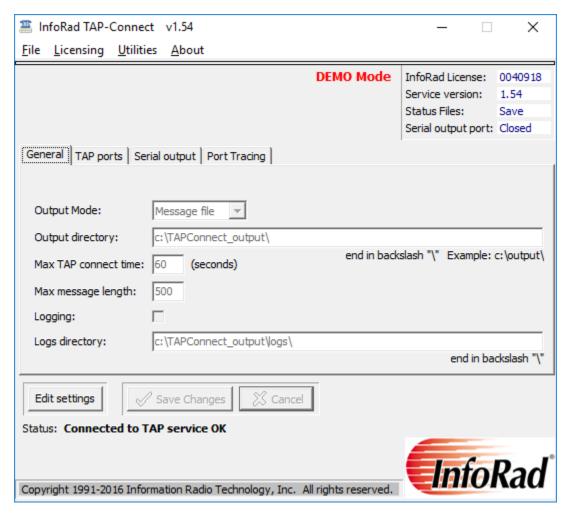




7. Click on Finish



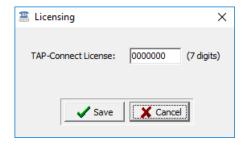
Once the program files are installed, the InfoRad\$ TAP-Connect TM Configuration application will start.



If you are evaluating InfoRad® TAP-Connect TM in Demo mode, please continue to the next page to complete Configuration settings.

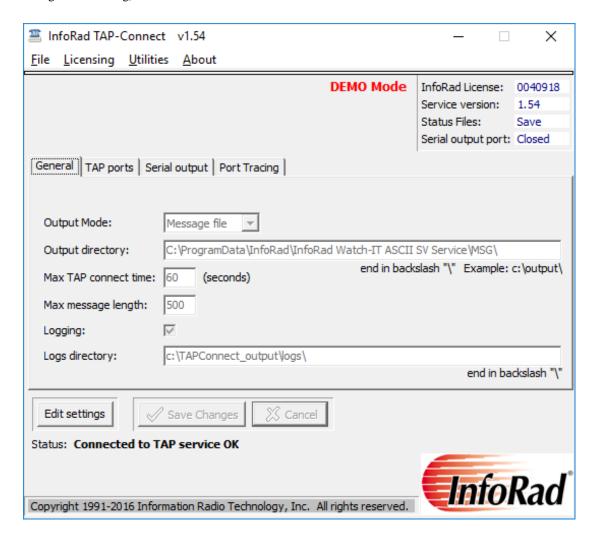
If you have purchased InfoRad® TAP-Connect $^{\text{TM}}$, enter your license number:

From the Menu bar select Licensing. Enter your license number and then click the Save button.



TAP-Connect™ Configuration

To configure InfoRad® TAP-Connect TM , click on the **Edit settings** button (near the bottom left of the configuration dialog) .



Output mode: Select 'Message file' if TAP-Connect™ is to be used with InfoRad Enterprise SV* or InfoRad Watch-IT ASCII SV; select 'Serial port' if TAP-Connect™ is to be used with InfoRad Watch-IT Serial.

Output directory field: Enter the path to your InfoRad Enterprise SV, InfoRad Watch-IT ASCII SV message directory, or enter the path to your InfoRad Watch-IT Serial directory. For example, if the default installation path was used:

InfoRad V10.4.0 and later:

InfoRad Enterprise SV: C:\ProgramData\InfoRad\InfoRad Enterprise SV Service\MSG\

Watch-IT ASCII SV: C:\ProgramData\InfoRad\InfoRad Watch-IT ASCII SV Service\MSG\

Watch-IT Serial: C:\ProgramData\InfoRad\InfoRad Watch-IT Serial\

InfoRad V10.3.8 and previous:

InfoRad Enterprise SV: C:\Program Files\InfoRad Enterprise SV Service\MSG\

Watch-IT ASCII SV: C:\Program Files\InfoRad Wireless Watch-IT ASCII SV Service\MSG\

Watch-IT Serial: C:\Program Files\InfoRad Wireless\

Note: please include the trailing backslash in the path

Max TAP connect time field: enter the maximum number of seconds to allow a TAP connection before TAP-Connect forces a disconnect.

Max message length field: enter the maximum number of characters per message for TAP input.

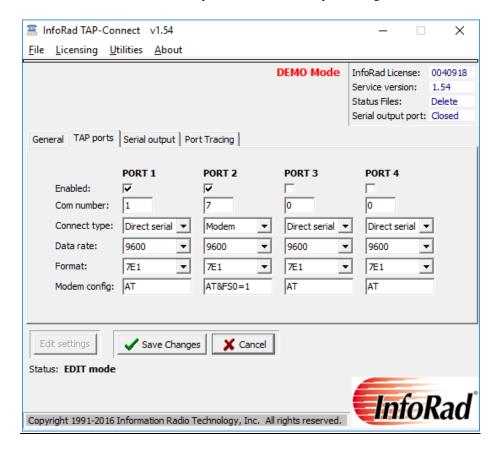
Logging option: Turn on the logging option for troubleshooting. The InfoRad® TAP-ConnectTM service will place the log file in the defined **Logs directory** (see below). The log file is a text file and will be named with the date. (Ex: 2016_05_12.txt)

Logs directory field: Enter the path for log files. The InfoRad® TAP-ConnectTM service will place the log file in the defined directory. The log file is a text file and will be named with the date. (Ex: 2016_05_12.txt)

Note: please include the trailing backslash in the path

TAP ports settings

InfoRad TAP-Connect monitors up to 4 communication ports using MODEM or Direct Serial connection.



Enable option: Enable a single port or multiple ports as required for your system.

Com number: Enter the system assigned comport number for the TAP-Connect port to monitor. (Find system serial port / comport assignments using Windows Device Manager – Ports (COM & LPT))

Connect type: Select 'Direct serial' or 'Modem'.

Data rate: Select the data rate for TAP input (the data rate of your TAP system output).

Format: Select the data settings rate for TAP input (the data settings of your TAP system output). Typically 7E1 for most TAP systems; 8N1 also supported.

Modem config: If the TAP-Connect port is configured for 'Modem' Connect type, enter a modem initialization string. (EX: AT&FS0=1 – factory default modem settings, auto-answer on first ring.)

Click on 'Save Changes' button to save your settings.

Port Tracing tab

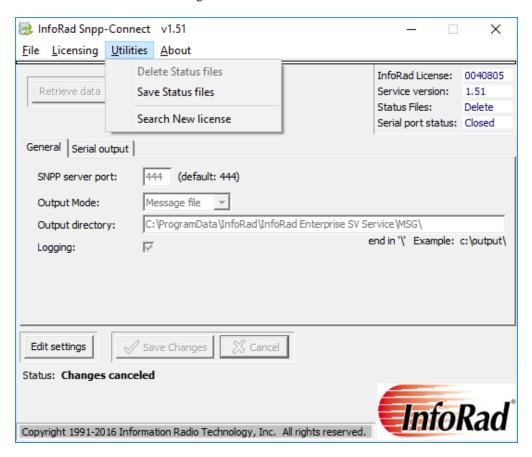
See 'Troubleshooting InfoRad TAP-Connect' section for information on Port Tracing.

Utilities menu

Delete Status files option: (default) The InfoRad® TAP-Connect™ service will delete InfoRad Message Status files after processing. (InfoRad Enterprise SV or InfoRad Watch-IT ASCII SV only)

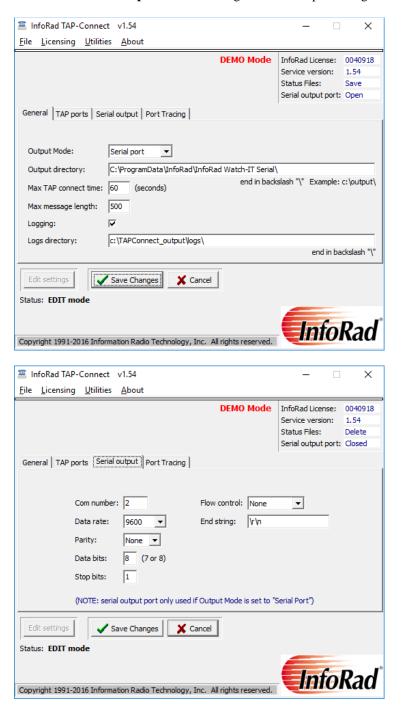
Save Status files option: Select this option to save InfoRad Message Status files for troubleshooting purposes. Error status files contain error statements when message send attempts fail. (InfoRad Enterprise SV or InfoRad Watch-IT ASCII SV only)

Search New license option: This option allows the InfoRad® TAP-ConnectTM service to find a new InfoRad License number. For example, if the InfoRad® TAP-ConnectTM service was initially setup in Demo mode (30-day Trial mode) with a 30-day Trial version of Enterprise SV or Watch-IT ASCII SV, once the full version of InfoRad product is installed you can license the InfoRad® TAP-ConnectTM from Demo to licensed mode by using Search New license, and then entering the InfoRad® TAP-ConnectTM license number under the Licensing menu.



Serial output settings

If using InfoRad Watch-IT Serial with TAP-ConnectTM: Select 'Serial port' for **Output mode**, and then click on the '**Serial output**' tab and configure Serial output settings.



NOTE: Serial port settings should match those in Watch-IT Serial – Serial Monitoring Setup

Com number: enter the Comport number for TAP-Connect serial data output

Data rate: select data rate from the dropdown list: 300, 1200, 2400, 4800, 9600, 19200, 38400

Parity: select parity setting from the dropdown list: Even, Odd, None

Data bits: enter 7 or 8 data bits

Stop bits: enter 1 or 2 stop bits

Flow Control: select flow control from dropdown list: Hardware, Software, None

End string: enter the end of string /end of data character(s)

Supported characters:

\r carriage return (must be lowercase 'r')

\n new line (line feed) (must be lowercase 'n')

\xy any 2 hex characters (Example: \04 for EOT)

If none of the above, then enter a character string (Example: END or end)

Using InfoRad[®] TAP-Connect[™] With InfoRad[®] Watch-IT ASCII SV and InfoRad[®] Enterprise SV*

The InfoRad TAP-Connect™ runs as a service under MS Windows and monitors designated **TAP communications port(s)** for valid incoming messages. The InfoRad® TAP-Connect™ service processes the TAP data for sending and formats the message for the InfoRad Wireless Watch-IT ASCII SV or InfoRad Wireless Enterprise SV* software to redirect the message using supported wireless industry messaging protocols.

When the InfoRad® TAP-ConnectTM receives an incoming TAP message it parses the receiver information and the message text from the TAP data.

The receiver information is then used as the recipient name within the InfoRad Watch-IT ASCII SV and Enterprise SV* software; therefore, **the receiver number must exist in the InfoRad Watch-IT ASCII SV or Enterprise SV* software program database as a Receiver name or Group name.** For example, "2165311369" would be entered in the InfoRad program as a Receiver or Group name. (See next page for example database entries.)

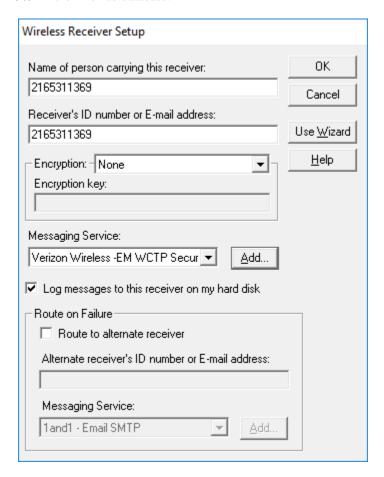
The TAP message text is used for the message text for the InfoRad program.

When the InfoRad program receives a message that has been processed by InfoRad® TAP-Connect™, the message is sent to the Receiver or Group name using the appropriate phone number(s) and Messaging Service(s) as defined in the InfoRad program database. Outgoing multiple message protocol support and route-on-failure are provided via SNPP, WCTP, SMTP, TAP, including direct serial TAP. If using InfoRad v10.4.0 or later, the InfoRad Messaging Gateway and select SMS providers are supported.

*Note: The InfoRad Enterprise SV software requires a 10-Client license or greater.

Example database entry in InfoRad Wireless Watch-IT ASCII SV or InfoRad Wireless Enterprise SV:

Systems generating TAP messages typically use the phone number. For example, using a phone number of <2165311369> to send to an employee phone or pager via TAP-Connect, enter a Receiver Name of 2165311369 in the InfoRad database:



When a TAP message to <2165311369> is captured by TAP-Connect, the result is the text of the TAP message will be sent to the wireless receiver defined as '2165311369' in the InfoRad Receiver database.

Note: TAP client (sending) systems will typically strip dashes, spaces, and dots from the phone number before submitting to a TAP server (like TAP-Connect). Therefore you should NOT include dashes, spaces, or dots in the number for the Receiver name in the InfoRad database.

Using InfoRad[®] TAP-Connect™ With InfoRad® Watch-IT Serial

The InfoRad TAP-ConnectTM runs as a service under MS Windows and monitors designated **TAP communications port(s)** for valid incoming messages. The InfoRad® TAP-ConnectTM service processes the TAP data for sending and formats the message for the InfoRad Wireless Watch-Serial software to redirect the message using supported wireless industry messaging protocols.

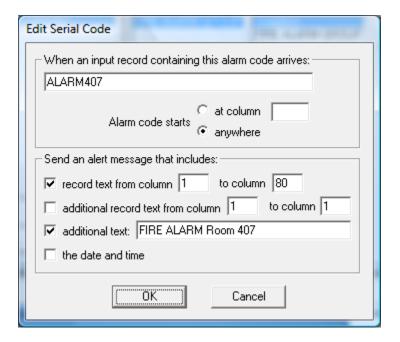
When the InfoRad® TAP-Connect™ receives incoming TAP data it parses the TAP message text from the TAP data which is then output via the assigned serial port to the InfoRad Watch-IT Serial software.

The Watch-IT Serial software receives the TAP message text that has been processed by InfoRad® TAP-ConnectTM, and parses the incoming TAP message text for programmed alarm code or key word(s). Watch-IT Serial then sends the TAP message text and / or optional 'additional text' to the assigned Receiver(s) or Group(s) programmed within the Watch-IT Serial software to receive messages for the specific alarm code or key word(s) using the appropriate phone number(s) and Messaging Service(s) as defined in the InfoRad program database.

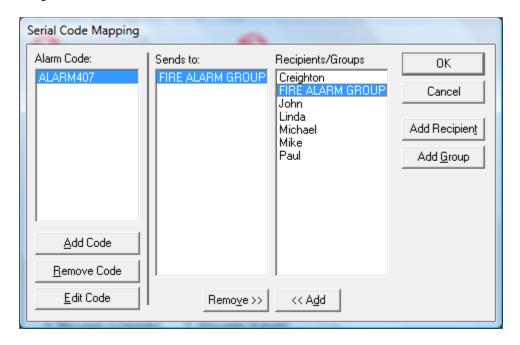
Outgoing multiple message protocol support and route-on-failure are provided via SNPP, WCTP, SMTP, TAP, including direct serial TAP. If using InfoRad v10.4.0 or later, the InfoRad Messaging Gateway and select SMS providers are supported.

Sample Watch-IT Serial Code setup:

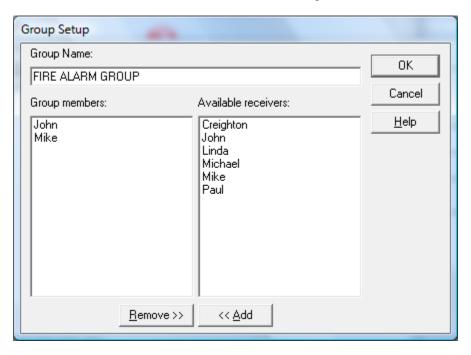
Example for alarm code / key word(s) containing "ALARM407"



Assign code to FIRE ALARM GROUP



FIRE ALARM GROUP created in Watch-IT Serial Group database



Using the above settings, when "ALARM407" is triggered the result is Watch-IT Serial will send the text message "ALARM407 FIRE ALARM ROOM 407" to the wireless receivers for John and Mike (as defined in the InfoRad Receiver database).

Troubleshooting InfoRad® TAP-Connect™

TAP-Connect logging:

In the InfoRad® TAP-ConnectTM Configuration application turn on the **Logging** option and in the **Utilities** menu select **Save Status files** (when using InfoRad Wireless Watch-IT ASCII SV or InfoRad Wireless Enterprise SV). The InfoRad® TAP-ConnectTM log file can be used to view the TAP message input. The InfoRad® TAP-ConnectTM service will place the log file in the defined **Logs directory** defined in the TAP-Connect Configuration application. The log file is a text file and will be named with the date. (Ex: 2016_05_12.txt).

Enterprise SV and Watch-IT ASCII SV message status logs:

InfoRad Wireless Watch-IT ASCII SV or InfoRad Wireless Enterprise SV program message status files can be used to find processing or sending problems. Message log files are found in the Message Directory (the **Output directory** defined in the TAP-Connect Configuration application). Messages with errors will create an Error Status File named with the format ERR MSG viaTAPC.nnn ('nnn' = message number).

Utilizing Message Status Files along with Internet and/or Communications diagnostic log files (discussed next) will further aid troubleshooting.

Internet, modem, and direct serial connection diagnostic logs:

Diagnostic logging options for Internet messaging protocols are found in the Enterprise SV, Watch-IT ASCII SV, and Watch-IT Serial programs under the program Internet Settings Setup. The Internet diagnostic log file, named "inetlog.txt", is found in the ProgramData folder*.

Diagnostic logging options for Dial-up TAP (Modem) and Direct Serial Connection communications are found in the Enterprise SV, Watch-IT ASCII SV, and Watch-IT Serial programs under the program Communications Settings Setup. The Communications diagnostic log files are found in the ProgramData folder*. Modem or Direct Serial Connection log files are named with the format CMddhhmm.TXT. (Example: for a message attempted on the 19th at 11:32 AM the log file will be named CM191132.TXT.)

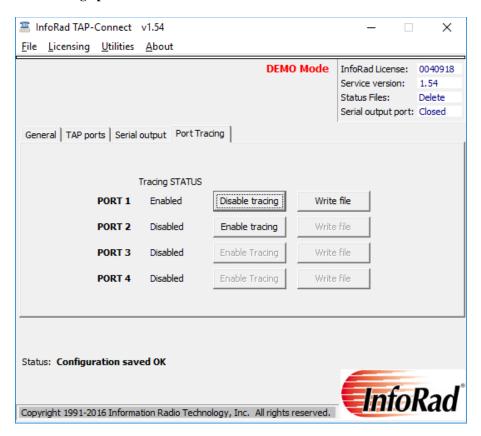
Watch-IT Serial – serial port input diagnostic logs:

InfoRad Wireless Watch-IT Serial: Serial port diagnostic log files (option found in Serial Monitoring Setup) can be used to log incoming serial data. Two kinds of serial data log files are created for serial diagnostics and both can be found in the program folder*. "Simlog.txt" is a continuous log in a more readable format. Additionally, there are log files with the format "SMddhhmm.TXT" that are a raw data log that is created for each serial session. (Example: if the program is started or Serial Monitoring is started on the 19th at 11:32 AM, the session log will be named SM191132.TXT.)

Note: When finished troubleshooting, turn off diagnostic logging options in the associated programs, and delete any existing diagnostic log files.

*InfoRad program diagnostic logs are located in the Program Files folder for v10.3.8 and earlier.

Port Tracing option in TAP-ConnectTM:



The TAP-Connect Port Tracing feature an additional troubleshooting option. When Port Tracing is 'Enabled' incoming port data is captured until the 'Write file' button is clicked, allowing for multiple transactions to be captured if desired. Once 'Write file' is clicked for the port, the Port Tracing option for that port is reset to 'Disabled'. When the 'Write file' button is clicked for a port, the captured port data is written to a text file in the Windows 'System' folder. For 64-bit Windows it is typically: C:\Windows\SysWOW64.

Open the trace file with any editor (EX: Notepad) or word processor. The trace file will be named 'TapPortn.TRC' – n being the TAP-Connect port number. (EX: Port 1 trace file will be named 'TapPort1.TRC')

Note that the trace file will be overwritten on any subsequent "Write file' actions.

Also note that any 'Save Changes' action to TAP-Connect settings, or the closing of the TAP-Connect Configuration application will reset all Port Tracing options to 'Disabled'.

TAP-Connect Manual Install / Uninstall

If you have any trouble with the Windows Installer you can manually install the TAP-Connect service and configuration application.

If you have attempted to use the Windows Installer previously, you should first uninstall the TAP-Connect. You can attempt to do that from the Windows Add/Remove Programs utility.

If you cannot uninstall from Add/Remove Programs then go to the Command prompt (Note: Run as administrator) – (Start menu – Run or Accessories then Run) and run:

sc delete ir_tap_connect

(you may have to go to the System folder that contains the sc command and then run the command – EX: C:\Windows\System32)

You should then re-boot the machine.

To manually install the service:

On the installation CD go to the "Manual Install Files" folder and copy the files to your desired program folder (EX: C:\TAP-Connect).

Again go to the Command prompt and run:

[InstallDirectory] IrTapSrvc.exe /INSTALL

Example:

C:\TAP-Connect\IrTapSrvc.exe /INSTALL

Once installed you can start the service at the Command prompt (Note: Run as administrator):

sc start ir_tap_connect

(you may have to go to the System folder that contains the sc command and then run the command -EX: C:\Windows\System32)

Or you can start the service from the Services Control Panel.

Once the service is running, create a shortcut on the desktop to the "IrTapConnect.exe" in the installation folder.

Start the "IrTapConnect.exe" (Note: Run as administrator) and proceed with License and Setup per the manual instructions.

Technical Support

Technical Support is only available to registered users of the software as detailed in the licensing agreement. Please register if you haven't already.

This program is licensed with 90 days free telephone technical support included. AlphaCare Subscription options are available that extend the support period, as well as offer priority telephone support and Upgrade Protection. Out-of-warranty support is also available on a perincident basis.

Please call InfoRad Sales at (800) 228-8998 for details on AlphaCare, or email to sales@inforad.com, or see our website at www.inforad.com.

InfoRad Software Technical Support is available Monday through Friday 8:30-5:30 ET.

Optional Extended Support Services weekend/holiday and 24x7 options are available.

A technical support section with solutions to common problems is also available at www.inforad.com/techsupport

Phone:	(216) 531-1369
Email:	techsupport@inforad.com
Internet:	www.inforad.com

License Agreement

InfoRad® TAP-Connect™

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This License Agreement licenses the use of this product for the United States of America only. No use beyond the United States of America is authorized by this agreement or by the purchase of this product.

InfoRad TAP-Connect is licensed for use ONLY with the following InfoRad products:

InfoRad Enterprise SV (10-Client License and greater) InfoRad Watch-IT ASCII SV InfoRad Watch-IT Serial

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