

ACTAtek Agent Manual

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Hectrix Limited

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ACTAtek Agent Manual

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Chapter 1. ACTAtek Agent

1.1. Introduction

The Agent is primarily used to download the event log from the ACTAtek database in real time and without any hassle. It saves time and administrative efforts in backing up the data from the ACTAtek to a local computer.

The following documentation will give you a step by step illustration on how to install and operate the Agent. For any comments, or tech support, please write to support-@hectrix.com . All questions and comments are welcome.

1.1.1. System Requirements:

1. JAVA Run-time 1.4 or higher. To download the JAVA Run-Time, please visit:

<http://java.sun.com/j2se/1.4.2/download.html> OR

<http://jdk.sun.com/webapps/download/AutoDL?BundleId=9992>

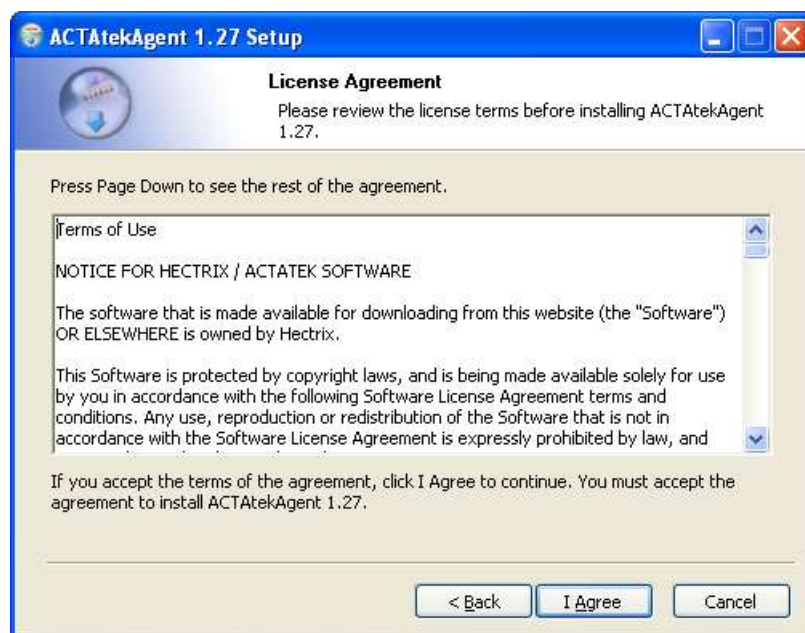
2. ACTAtek Firmware 1.27.5 or higher.
3. The computer you are using should NOT BE behind any firewall.
4. Please make sure both the ACTAtek Agent and ACTAtek firmware versions are as updated and close together as possible.
5. ACTAtek Agent supports both JDBC and ODBC databases.

1.2. Installing the ACTAttek Agent

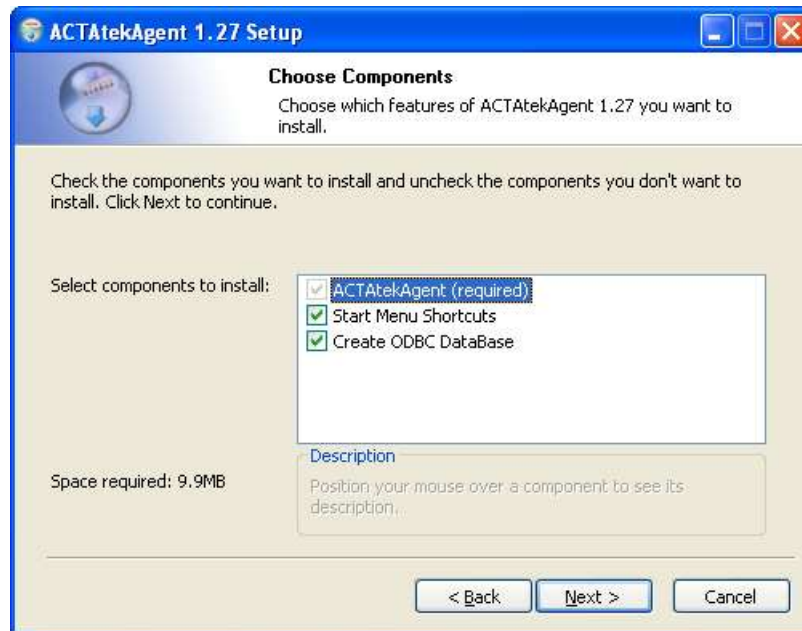
1. Download the file from the appropriate location, or if it came on a CD, place the CD in the CD-ROM and open the 'Setup.exe' file.



2. Click "Next"

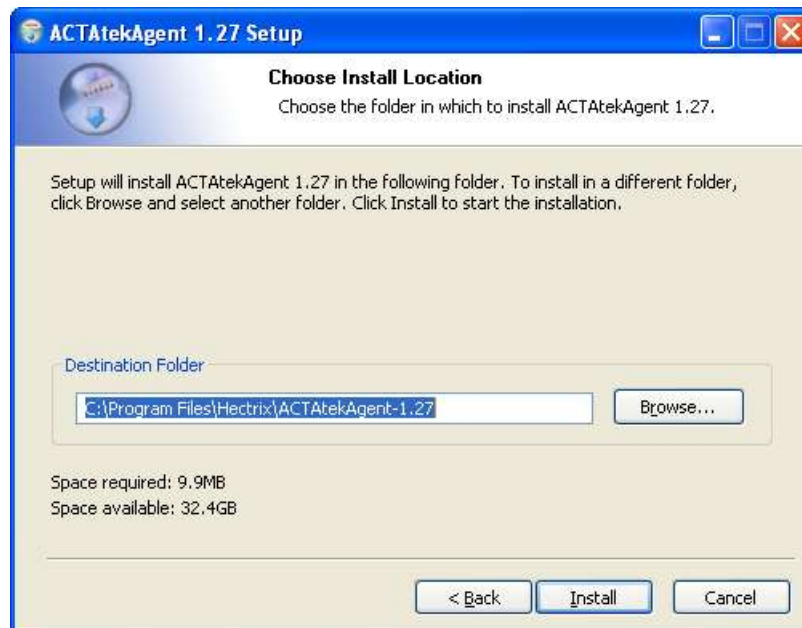


3. Click “Next”



4. Please check the following:

- Start Menu Shortcuts – To add shortcuts in the Start Menu
- Create ODBC Database – Create an ODBC database in the current installing path



5. This is the default location that the Agent will be installed at. So, click Install to begin the installation.



6. Once the installation is complete, click "Finish" to exit the setup and start the Configurator and begin the "configuration"
7. Start --> Programs --> Hectrix --> ACTAtAgent --> Configurator and begin the setting.

1.3. ODBC Installation

From the installer above, an ODBC database is installed in the current path. The database is named “actatek”. But if you want to create another, you can follow the following steps

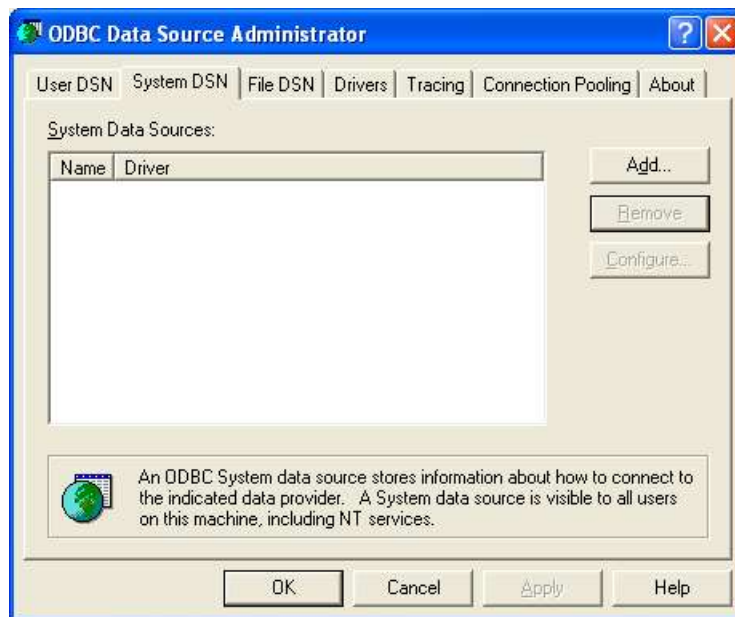
Taking Windows XP as an example on how to do this, please follow the below steps.

1. Start -> Control Panel
2. Select ‘Administrative Tools’



3. Under Administrative Tools, select ‘Data Sources (ODBC)’.

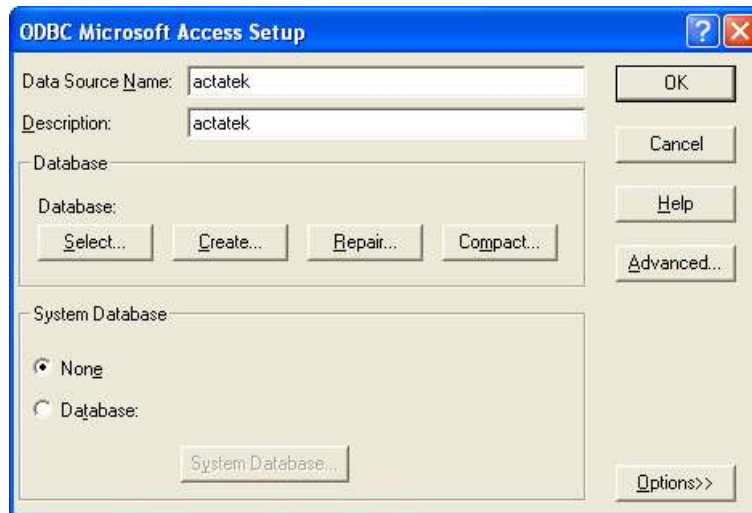
- Select the second tab from the top left, "System DSN".



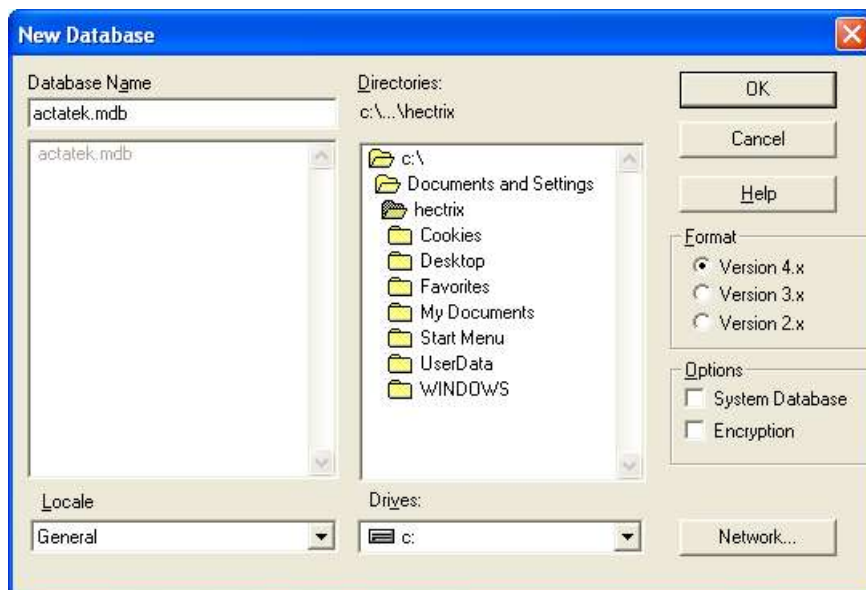
- Select 'Add...' and "Driver do Microsoft Access (*.mdb)", and 'Finish'



- To setup an ODBC Microsoft Access file, assign a 'Data Source Name' to be "actatek" and input a description of the database.



- Select 'Create...'. Specify a valid file location, as shown below.



- Click "OK". Successful creation, will prompt this message:



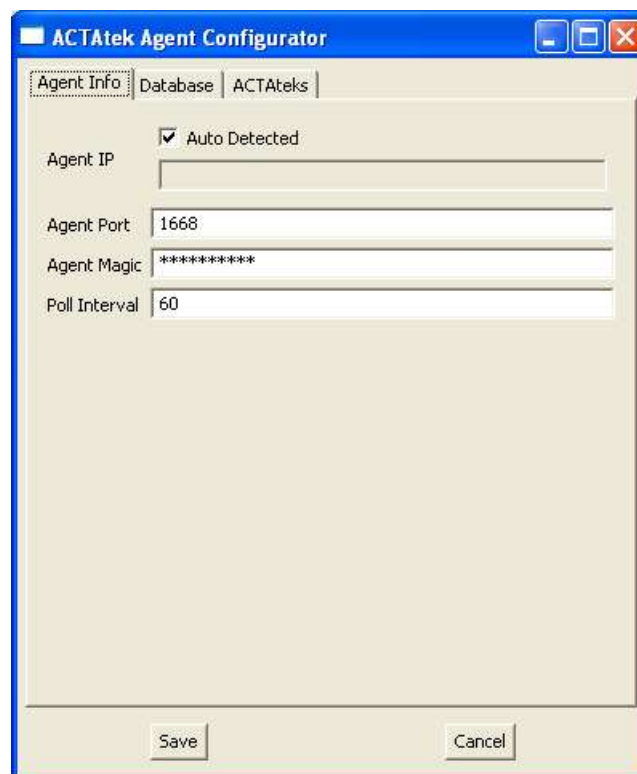
9.

Once successfully created, please go to the following section. If there is an issue creating the ODBC file, please contact us at support@hectrix.com.

1.4. ACTAtek Agent Configurator:

Click Start --> Programs --> Hectrix --> ACTAtekAgent --> Configurator to begin the "configuration"

1.4.1. Agent Info



- If 'Auto Detected' is selected, the Agent will automatically try to detect the ACTAtek in your network.

- The default Agent Port is 1668
- The Agent Magic is the encryption code of Agent. Please limit the number of characters of the code since it does not need to be too long.
- need to be too long.
- Poll Interval should be set to > 60 seconds

1.4.2. To connect the Agent with an ODBC Database

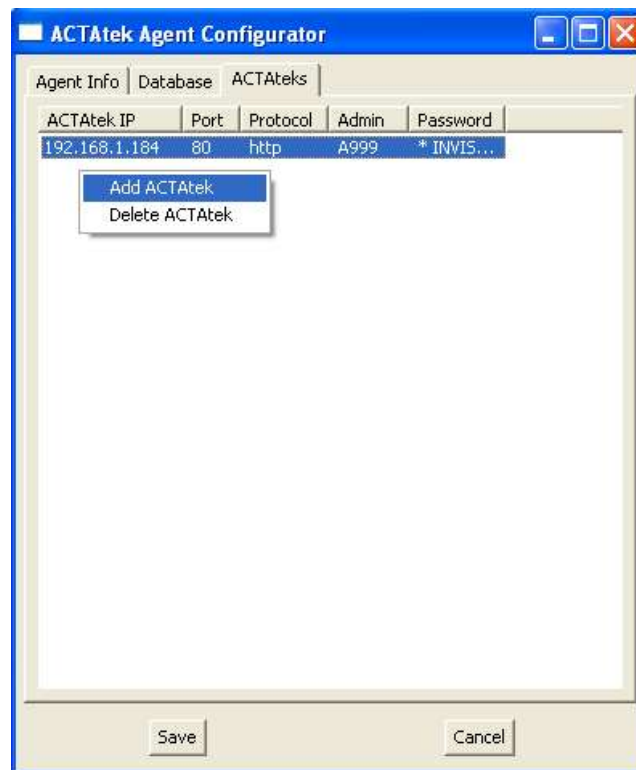
tek Agent Configurator window, Database tab. The window shows configuration fields for a Generic ODBC driver. Fields include Database Driver (Generic ODBC), Driver Class (sun.jdbc.odbc.JdbcOdbcDriver), JDBC URL (jdbc:odbc:actatek), Hostname, Database Name (actatek), Database Username, Database Password, Connection Pool Size (5), and Create Table SQL (CREATE TABLE ACTATEK_LOGS (userID VARCHAR(20) NOT NULL, timeentry DATETIME NOT NULL, eventID VARCHAR(20), terminalSN VARCHAR(20) NOT NULL)). Below these are mapping fields for Target Table Name (actatek_logs), Map Timestamp to Field (timeentry), Map UserID to Field (userid), Map Event to Field (eventid), Map TerminalSN to Field (terminalsn), and Map Photo (JPEG Binary) to Field."/>

The screenshot shows the 'ACTAttek Agent Configurator' window with the 'Database' tab selected. The configuration is as follows:

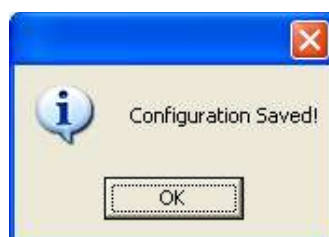
Database Driver	Generic ODBC
Driver Class	sun.jdbc.odbc.JdbcOdbcDriver
JDBC URL	jdbc:odbc:actatek
Hostname	
Database Name	actatek
Database Username	
Database Password	
Connection Pool Size	5
Create Table SQL	CREATE TABLE ACTATEK_LOGS (userID VARCHAR(20) NOT NULL, timeentry DATETIME NOT NULL, eventID VARCHAR(20), terminalSN VARCHAR(20) NOT NULL)
Target Table Name	actatek_logs
Map Timestamp to Field	timeentry
Map UserID to Field	userid
Map Event to Field	eventid
Map TerminalSN to Field	terminalsn
Map Photo (JPEG Binary) to Field	

- Database Driver: Generic ODBC
- Database Name: actatek (default, and set it in the above steps)
- Database Username and Password: We haven't set it. So, leave it blank
- Connection Pool Size: 5 (default)
- Create Table SQL: SQL command, 4 fields default
- Target Table Name, Map Timestamp to Field, Map UserID to Field, Map Event to Field, Map TerminalSN to Field, Map Photo (JPEG Binary) to Field: Please use the same names in the SQL command above

1.4.3. ACTAtteks (Attach Primary terminals only)

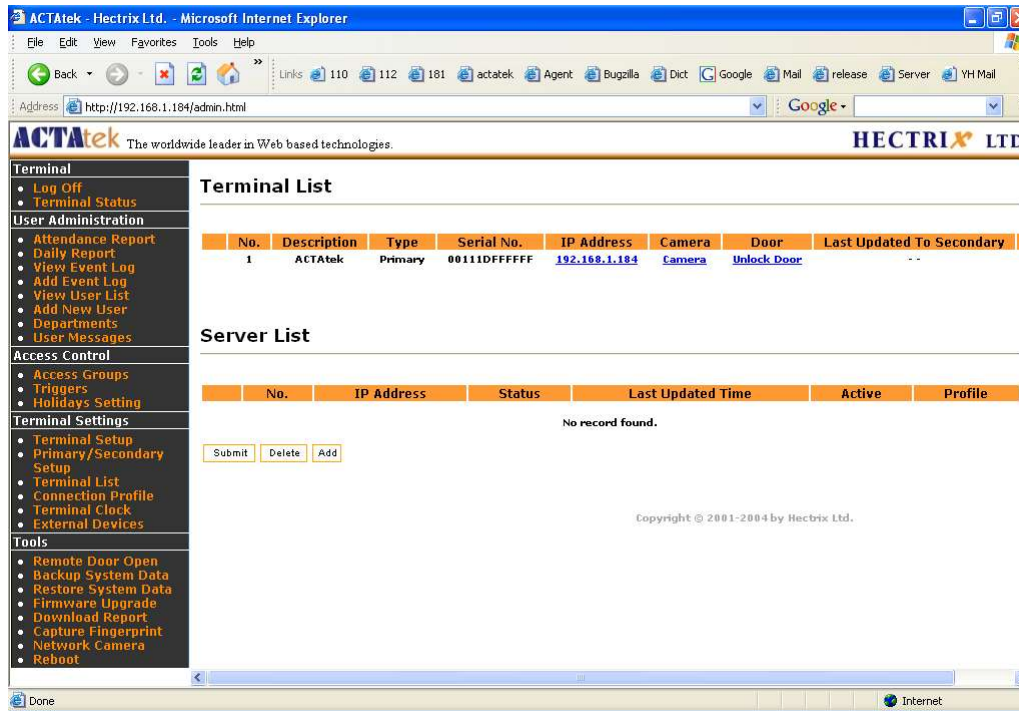


- Right click on the blank space, you will see “Add ACTAttek” or “Delete ACTAttek”
- Please enter the corresponding “ACTAttek IP”, “Port”, “Protocol”, “Admin” and “Password”
- Please be reminded that if you choose Port 80, you need to have http protocol. If you choose Port 443, you need to have https protocol
- Save it after all setting, the following screen will appear

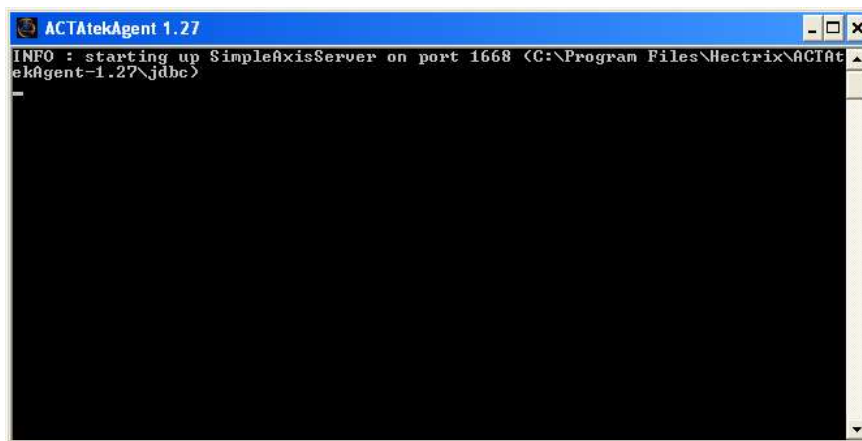
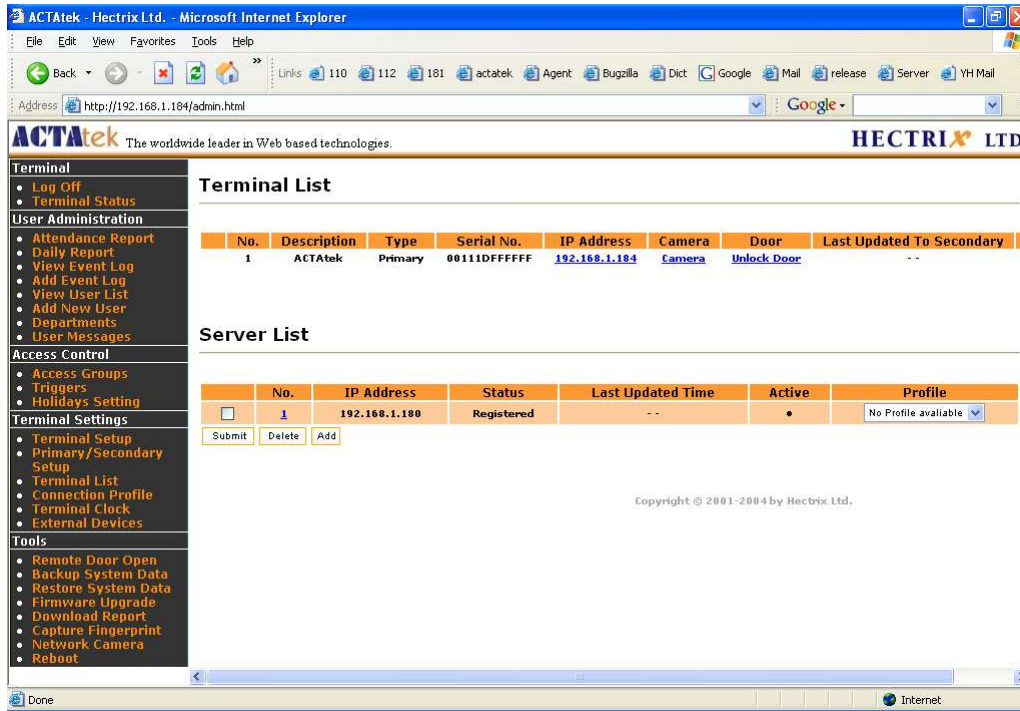


1.5. Starting the Agent

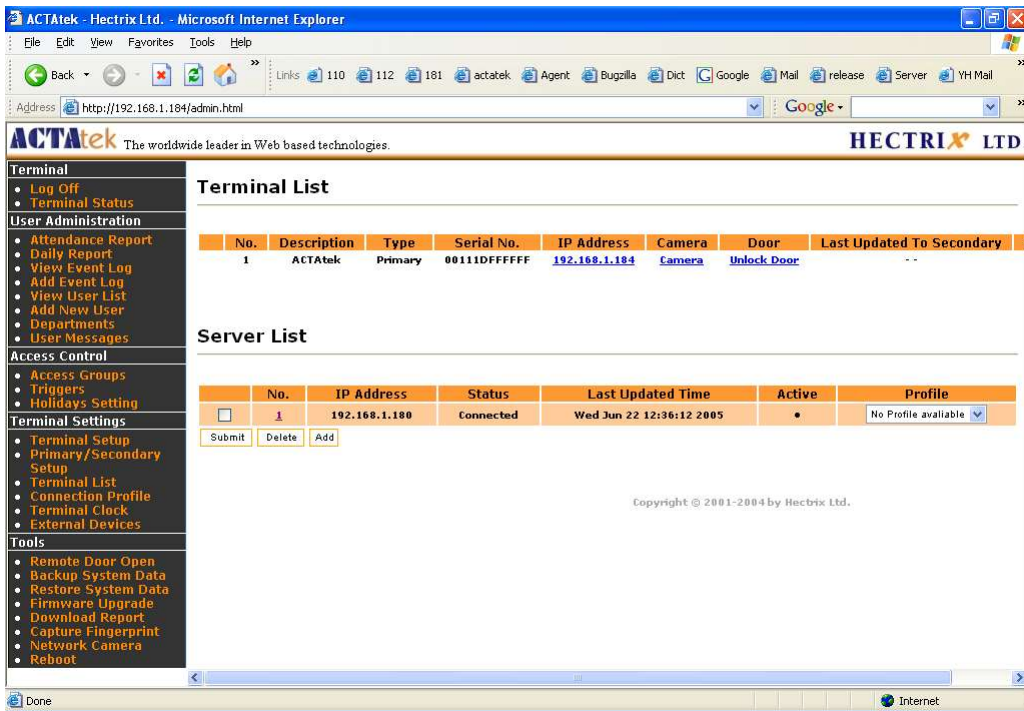
1. Before you start the Agent, please go to the Server list of the ACTAttek Terminal using web browser. There should be nothing under the Server List.



2. Now, click Start --> Programs --> Hectrix --> ACTAtekAgent --> ACTAtekAgent 1.27 and begin the program. You will see the following screens.



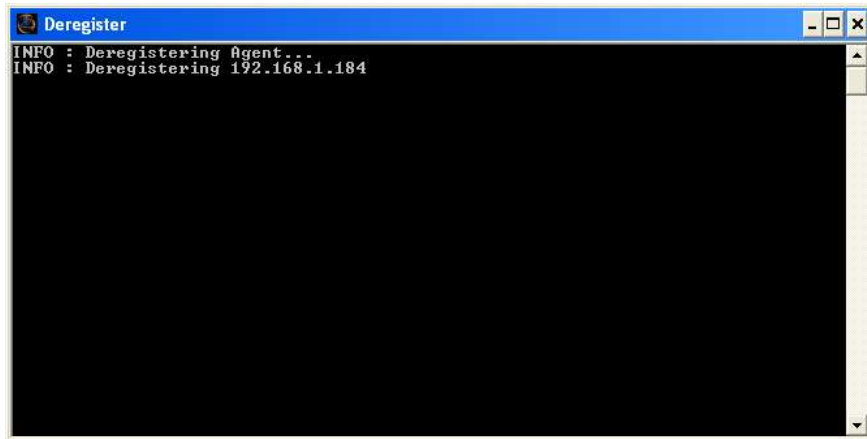
3. Login in the ACTAttek to add a few sample event logs, as shown below:



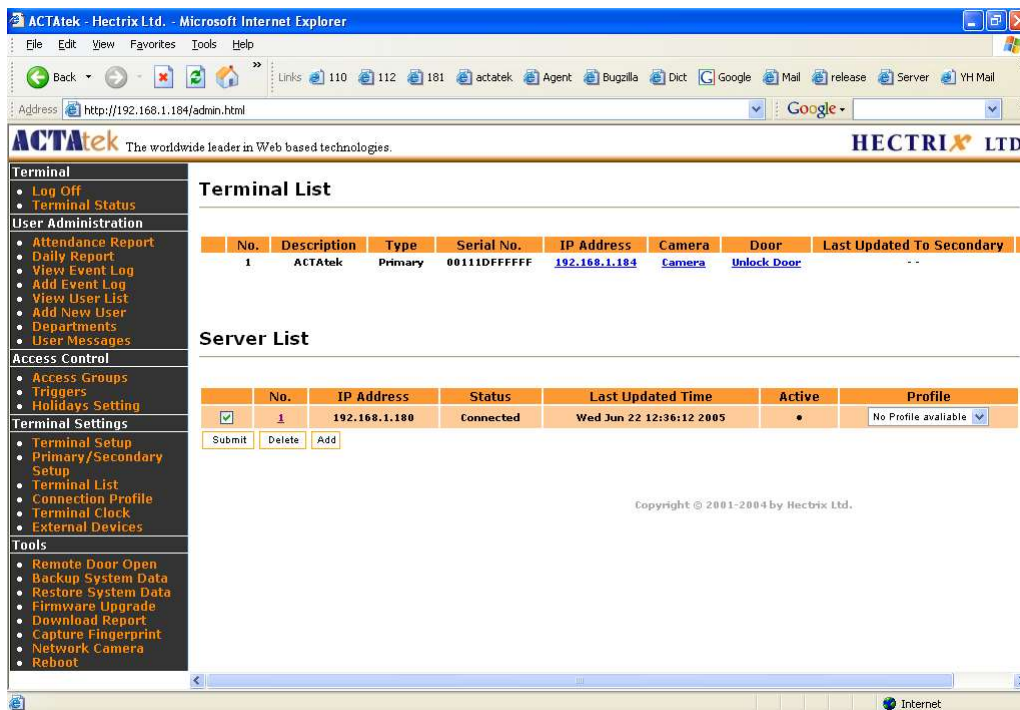
Once the field "Status" under the Server list (Terminal List) shows "Connected", event logs are being captured by the Agent in real time.

1.6. De-registering the Agent

To de-register the unit, click Start --> Programs --> Hectrix --> ACTAttekAgent --> Deregister. You will see the following screens.



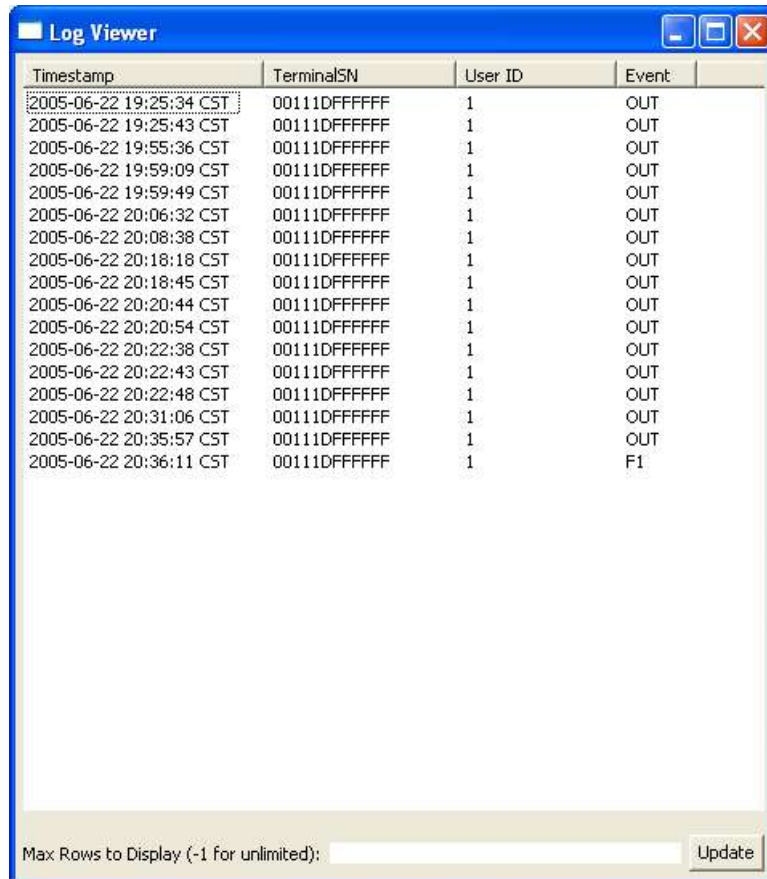
There is an alternative method to de-register the ACTAttek from the Agent, which is via the web interface. If you go to the Server List of the terminal that is connected to the Agent, check the item under "Server List", and Click "Delete" as shown in the De-register process above



1.7. Viewing the Database Logs

1. Using Log Viewer:

- Now, click Start --> Programs --> Hectrix --> ACTAt^{te}kAgent --> Viewer and begin the program. You will see the following screens.



2. Using MS Access:

- Double click to open the file of your database. Open the table "ACTATEK_LOGS" to view it's content

1.8. Connecting ACTAtek Agent with Oracle 10g Database

1. Since the database setting is different for each customer, it is highly recommended that you consult with your DBA for the database administration and setting.
2. You need to Copy Oracle's classes12.zip to the Agent's JDBC in Window's directory. Following are the steps:
 - classes12.zip location: \${ORACLE_HOME}/jdbc/lib/classes12.zip
 - copy the file C:\Program Files\Hectrix\ACTAtekAgent-1.27\jdbc
3. Preparation :
 - Database Server and Firewall must set rule to allow ACTAtek Agent to access the Oracle database Port (default 1521)
 - Database login userid must be granted necessary rights eg. Connection and Table access
 - Default table name is actatek_logs and will use default tablespace.
 - Table will be created, if it doesn't already exist. If the table exists, ACTAtek Agent will use the existing table.
4. From the configurator, select Database tab and enter the following:
 - Database Driver: Oracle
 - Hostname: x.x.x.x:port where x.x.x.x is Database Server IP address, port is Oracle Database port (e.g1521)
example: 192.168.1.51:1521
 - Database Name: dddddddd where dddddddd is the location to enter database instance name
 - Username: database login id
 - Password: database login password
 - Connection Pool Size 5 (default)
 - Create Table SQL:

```
CREATE TABLE ACTATEK_LOGS (  
  userID VARCHAR2(20) NOT NULL,  
  timeentry DATE NOT NULL,  
  eventID VARCHAR2(20),  
  terminalSN VARCHAR2(20) NOT NULL,  
  jpegphoto blob  
)
```
 - Target Table Name: actatek_logs

- Map Timestamp to Field: timeentry
- Map UserID to Field: userid
- Map Event to Field: eventID
- Map TerminalSN to Field: terminalsn
- Map Photo (JPEG Binary) to Field: jpegphoto



5. View the table in ISQLplus

- ISQLplus allows for web browser access to database table. To do so, enter the following in your browser's address bar:

http://x.x.x.x:port/isqlplus/workspace.uix where x.x.x.x is the server IP Address, the port is the iSQLplus port (default is 5560).

- For example, http://192.168.1.51:5560/isqlplus/workspace.uix

- Login:
- Username: enter database user login id
- Password : enter database user login password
- Connect Identifier: enter database instance name

- Sample SQL command:

- From workspace, enter sql command:

```
select userid, TO_char(timeentry,'DD-Mm-YYYY HH24:MI:SS'),  
eventid, terminalsn  
from actatek_logs  
order by 2 desc  
click button <execute>
```

6. Viewing the table in SQL*Plus Windows GUI

- From Windows, select SQL*Plus

- Login:
- Username: enter database user login id
- Password : enter database user login password
- Connect Identifier: enter database instance name

- Sample SQL command:

- From command prompt SQL>, enter:

```
select userid, TO_char(timeentry,'DD-Mm-YYYY HH24:MI:SS'),  
eventid, terminalsn  
from actatek_logs  
order by 2 desc;
```

press <enter>

1.9. Connecting ACTAtek Agent with MySQL Server

1. Since the database setting is different for each customer, it is highly recommended that you consult with your DBA for the database administration and setting.

2. In the ACTAtekAgent's JDBC directory, default will include a mysql jdbc driver.

- Please download the MySQL JDBC driver from:

<http://www.mysql.com/products/connector/j/>

and put the corresponding JAR file into:

C:\Program Files\Hectrix\ACTAtekAgent-1.27\jdbc

You should find mysql jdbc driver e.g.mysql-connector-java-3.0.14-production-bin

3. Preparation :

- Database login userid must be granted necessary rights eg. Connection and table access rights.
- Default table name is actatek_logs

4. From the configurator, select Database tab and enter the following:

- Database Driver: MySQL
- Hostname: x.x.x.x

where x.x.x.x is MySQL Database Server IP address

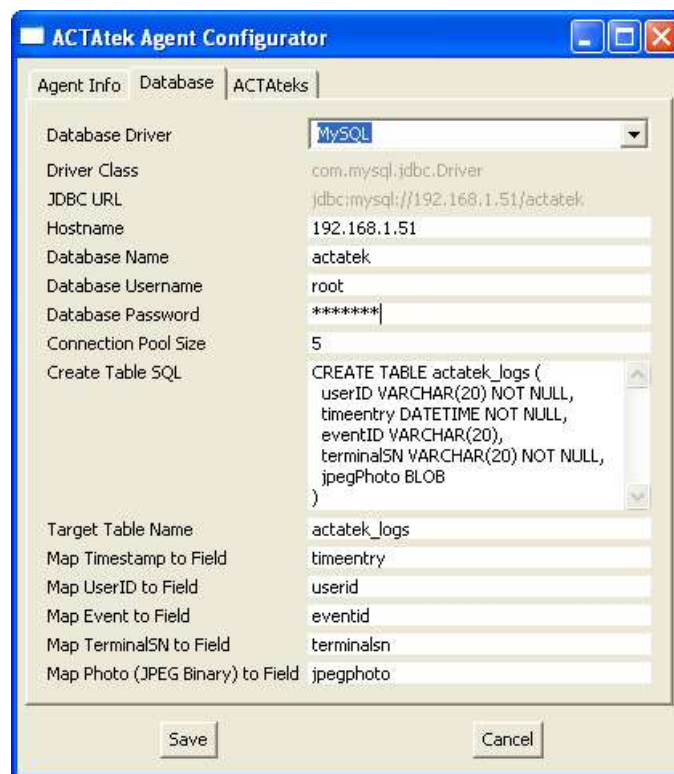
example: 192.168.1.51

- Database Name: dddddddd where dddddddd is the location for database name
- Username: database login id
- Password: database login password
- Connection Pool Size 5 (default)
- Create Table SQL:

```
CREATE TABLE ACTATEK_LOGS (
  userID VARCHAR2(20) NOT NULL,
  timeentry DATE NOT NULL,
  eventID VARCHAR2(20),
  terminalSN VARCHAR2(20) NOT NULL,
  jpegphoto blob
)
```

- Target Table Name: actatek_logs
- Map Timestamp to Field timeentry

- Map UserID to Field userID
- Map Event to Field eventID
- Map TerminalSN to Field terminalSN
- Map Photo (JPEG Binary) to Field: jpegphoto



5. View table in Linux

example:

- login mysql administrator e.g. Root
- enter command: `mysql -u root -p`
- enter mysql administrator password.
- `show databases;`
- `use actatek`
- `show tables;`
- `select userid, timeentry, eventid, terminalsn from actatek_logs`

1.10. Trouble Shooting

1.10.1. Network Troubleshooting

Network basic command description:

Ping

Use the MS-DOS command prompt of the PC on which the ACTAtek Agent is installed to ping the target ACTAtek. For example, successful ping (command "ping x.x.x.x") will display the following messages:

Network reachable terminal

example:

Pinging x.x.x.x with 32 bytes of data:

- Reply from x.x.x.x: bytes=32 time=1ms TTL=225
- Ping statistics for x.x.x.x:
- Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
- Approximate round trip times in milli-seconds:
- Minimum = 0ms, Maximum = 1ms, Average = 0ms

Network unreachable terminal

example:

Pinging x.x.x.x with 32 bytes of data:

Request timed out

Ping statistics for x.x.x.x:

Packets: Sent = 1, Received = 0, Lost = 1 (100% loss)

Ipconfig

From MS-DOS command prompt of the PC on which the ACTAtek Agent is installed to run a ipconfig command to obtain the PC's network information.

```
Ethernet adapter Local Area Connection:
```

```
Connection-specific DNS suffix :
```

```
IP Address: x.x.x.x
```

```
Subnet Mask: x.x.x.x
```

```
Default Gateway: x.x.x.x
```

Telnet

Use the MS-DOS prompt of the PC on which the ACTAtek Agent is installed to telnet to the ACTAtek Terminal. The command would be : "telnet x.x.x.x 80".

- The following messages will be displayed for successful or rejected attempts

Network reachable terminal:

- Showing blank screen
- press Ctl-C and "Enter", following screen will show

```
HTTP/1.1 400 Page not found
Server: GoAhead-Webs
Date: xxx mmm dd hh:mm:ss yyyy
Pragma: no-cache
Cache-Control: no-cache
Content-Type: text/html

<html><head><title>Document Error: Page not found</title></head>
<body><h2>Access Error: Page not found</h2>
<p>Bad request type</p></body></html>

Connection to host lost.
```

Network unreachable terminal:

```
Connecting to x.x.x.x ...
Could not open connection to the host, on port 80:
Connect failed
```

A connection attempt failed because the connected party did not properly respond after a period of time, or established connection failed because connected host has failed to respond.

Network Troubleshooting cases

Always show “Disconnected” in the Server List of the Terminal List using web browser

To check:

Start the ACTAttek Agent and use another computer in the SAME network to connect to the computer with the PC with the ACTAttek Agent installed. To do so, open MS-DOS command prompt, and type "telnet x.x.x.x 1668", where x.x.x.x is the IP Address of the PC with the ACTAttek Agent installed and 1668 is the port of the ACTAttek Agent. If the connection is not successful, the firewall is enabled and must be disabled for the Agent to work.

Cause: Firewall enabled, blocking port access

Action:

- Set firewall to allow port 1668 access.

“FATAL: Server Thread died unexpectedly” in command prompt

Cause: A java process javaw was not cleanly started

Action:

- From ACTAttekAgent's PC press buttons “Alt + Ctrl + Delete” to enter Task Manager.
- Select Processes Tab
- Select javaws process and press <end process> button.
- Start ACTAttekAgent in debug mode to check for any error:

In dos prompt type: agent -d 3

Symptom Login Failed in command prompt.

Cause: Wrong login information

Action:

- Go under Server List from Terminal List option of the web interface of the ACTAttek in use. Delete ALL items under the server list.
- Go to the Configurator of the Agent --> Tab ACTAtteks
- Right click your mouse to re-add the ACTAttek (... Make Sure ALL information is accurate!) then, click Save.
- Right click your mouse and add ACTAttek (x.x.x.x, 80, http, administrator id and password, MAKE SURE THE CONTENTS ARE CORRECT, then SAVE it
- In the tab "Database", change the "Create Table SQL" content to:

```
CREATE TABLE ACTATEK_LOGS (
  userID VARCHAR(20) NOT NULL,
  timeentry DATETIME NOT NULL,
```

```
eventID VARCHAR(20),  
terminalSN VARCHAR(20) NOT NULL  
)
```

- Also, delete the content in the "Map Photo (JPEG Binary) to Field" field.
- Go to the command prompt (Start --> Run --> cmd), change the current path to the Agent's path (example C:\ProgramFiles\Hectrix\ACTAtekAgent-1.27>)
- Type "agent.exe -d 3" to restart the agent in "Debug mode"
- At the Terminal login, enter a valid userid, check the event log from the web interface to see if there are any logs for import. (with UserID, timestamp, trigger and terminalSN show in the command prompt)

"Connection timeout" in command prompt

Can you ping the Terminal from ACTAtekAgent's PC? If NOT.

- Verify the Terminal's and the Agent's Configurator's IP Address, protocol, port number are the same.
For example http default to port 80 and https default to port 443.
- Ensure that the Terminal is powered on
- Ensure that the IP Address is UNIQUE.
- Check Network cable is connected and the network adapter green light is flashing.

1.11. Messages and Actions:

The following are some of the common messages you might receive from the ACTAtek Agent, possible causes and recommended actions are provided for your reference. For messages not listed, please contact us at support@hectrix.com for assistance.

1.11.1. General Messages

No Trusted Certificate found

Cause:

- Configurator setting of https was set with incorrect ID/Password

Action:

- Set correct terminal id/password

Registering Primary terminal login only

Cause:

- Trying to register a secondary terminal in the Agent Configurator.

Action:

- Set Target terminal as a standalone primary unit.
- From the configurator, remove the secondary terminal and re-add the primary terminal, if any.

login failed

Cause (1):

- ACTAtek terminal not exist

Action:

- Ensure the terminal is powered on and the ACTAtek Agent is reachable through the network to the ACTAtek Terminal. Use the PING command to confirm.

Cause (2):

- Wrong id/password

Action:

- Ensure correct terminal administrator id/password

parse time error, wrong magic**Cause:**

- Wrong Magic number in the server list

Action:

- Ensure server list's magic number setting is the same as Agent's magic number.

x.x.x.x specified agent not registered**Cause:**

- The terminal's server list does not have the correct Agent setting.

Action:

- Verify the terminal server list and the agent settings are the same. (2 bullet points - should be just one).
- Agent eg. Port, IP, magic number.
- Verify the terminal server list status is "connected".
- Verify the Agent Configurator has the appropriate terminal entry.
- Restart the Agent to register the terminals from the Agent's Configurator list.

connection time out**Cause:**

- Terminal not accessible. For example
- Terminal is in rebooting state
- Terminal network is unreachable
- More than one terminal with same IP address.

Action:

- Reboot the terminal and ensure the reboot is complete and the terminal is able to authenticate users.
- Ensure all terminals have unique IP address.
- Ensure all terminals have correct network setting:
- verify terminal setting eg IP, id, password, port
- reset Agent's PC mac table. Use ms dos command to clear the IP to Mac table: tarp -d

connection refused

Cause:

- Configurator terminal port entry is different from terminal port

Action:

- Ensure configuration's terminal port entry and terminal port are the same
- Ensure port is accessible for example: ensure port 443 is used by https:// only

read timed out

Cause:

- Terminal IP address was modified without updating configurator

Action:

- Ensure configurator's terminal IP entry is the same as terminal IP

1.11.2. Database related messages:

Start Agent failed:

ERROR: Create Table IO exception:

the network adapter could not establish the connection

Cause:

- Database server or Database not available

Action:

- Ensure database is running and accessible to ACTAtekAgent

Create Table: Invalid authorization specification

Symptom:

- message from server: "Access denied for user: 'root@hectrix' (Using password: YES)"

Cause:

- Message from Mysql database. Wrong Database Username/Password

Action:

- Re-enter Database Username/Password (case sensitive)

Error: LOG ERROR: Column not found

Symptom:

- message from server: "Unknown column ' JpegPhoto' in field list"

Cause:

- Map field does not have corresponding map to table column

Action:

- Ensure the table's and map field columns are the same.

1.12. Reporting Problems to Support:

Before reporting any problems, please have the following information handy.

1.12.1. Basic information

1. Brief description of symptoms and steps done and any error messages
2. Captured the message screen. To do so, press the <Alt> and <PrintScreen> buttons on your keyboard while at the command prompt or agent where the problem is and message is displayed.
 - From Windows menu select All Programs -> Accessories -> Wordpad.
 - Go to Start -> All Programs -> Accessories --> Wordpad
 - Once in wordpad, hit <Ctrl><v>
 - Save the file and email the attachment to support@hectrix.com
3. From the web interface, save THE ACTAtek Terminal status and setup pages OR from the ACTAtek Terminal copy down the terminal information, such as, model number, serial number, firmware version, etc.
4. Prepare the following files about the ACTAtekAgent
 - ActatekAgent configuration file: agent.properties
 - location: C:\Documents and Settings\user1\
 - ActatekAgent log file: agent.txt and agent.log.1
 - location: C:\Program Files\Hectrix\ACTAtekAgent
5. ACTAtek Server List status:
6. From the web interface, Terminal List/Server List, copy the Agent entry ie. agent IP, status, date, time

1.12.2. Customer information:

1. Your HECTRIX Customer Support Warranty number
2. Your company name and address
3. Name, telephone number and email of contact person

1.12.3. Software information:

1. Operating system version
2. ACTAtekAgent Version
3. Java Runtime version (From ms-dos enter command: java -version)
4. ACTAtek Terminal information
 - Model Number
 - Serial Number
 - Firmware version
 - FAM version

1.12.4. You should also prepare information on following:

1. Is this a recurring problem or one time problem?
2. Please provide the steps that lead to the failure or error?
3. Is there any non-ACTAtek equipment in use with ACTAtek Terminal?
4. Did you perform a Terminal reboot, ACTAtekAgent restart?
5. Have you made any recent changes to the ACTAtek Terminal and ACTAtekAgent setting?