

# ACTAtek Agent Manual

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Hectrix Limited

## Revision History

## 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@hectrrix.com](mailto:support@hectrrix.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://jdl.sun.com/webapps/download/AutoDL?BundleId=9992>

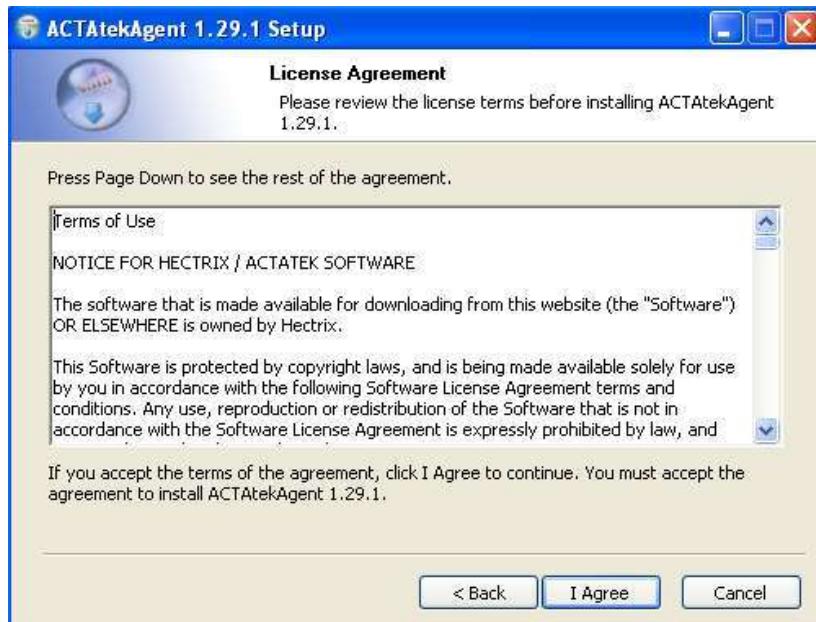
2. ACTAtek Firmware 1.29.11 or higher.
3. The computer you are running ACTAtekAgent should NOT be behind any firewall.  
If your firewall is enabled, please ensure ACTAtek Agent can listen to its service port default to 1668 or the port defined in ACTAtek Agent Configurator.
4. Please make sure both the ACTAtek Agent and ACTAtek firmware versions are uptodate with latest version. For latest software release please visit <http://support.hectrrix.com>
5. ACTAtek Agent supports both JDBC and ODBC databases.

## **1.2. *Installing the ACTAtek 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 “I Agree” if you have read and accepted the terms of the agreement.

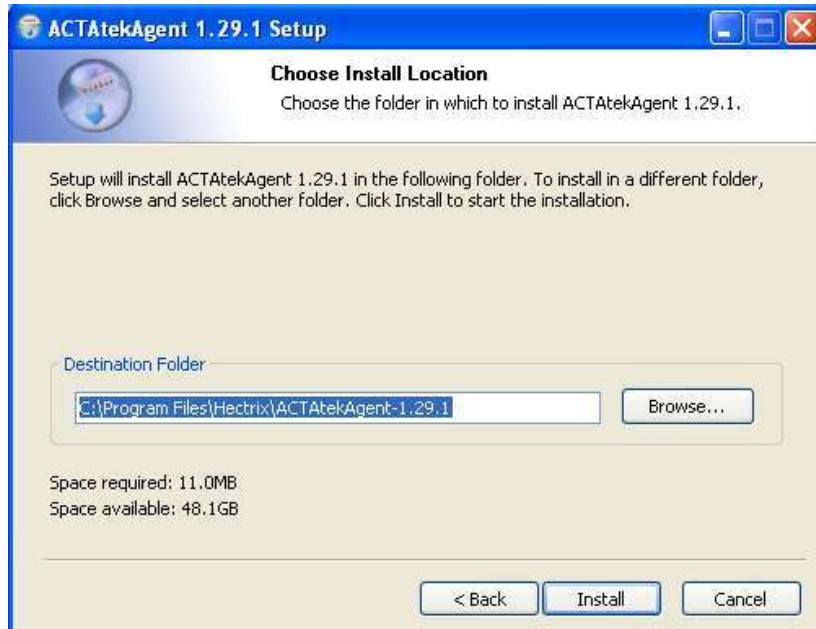


4. Please check the following:

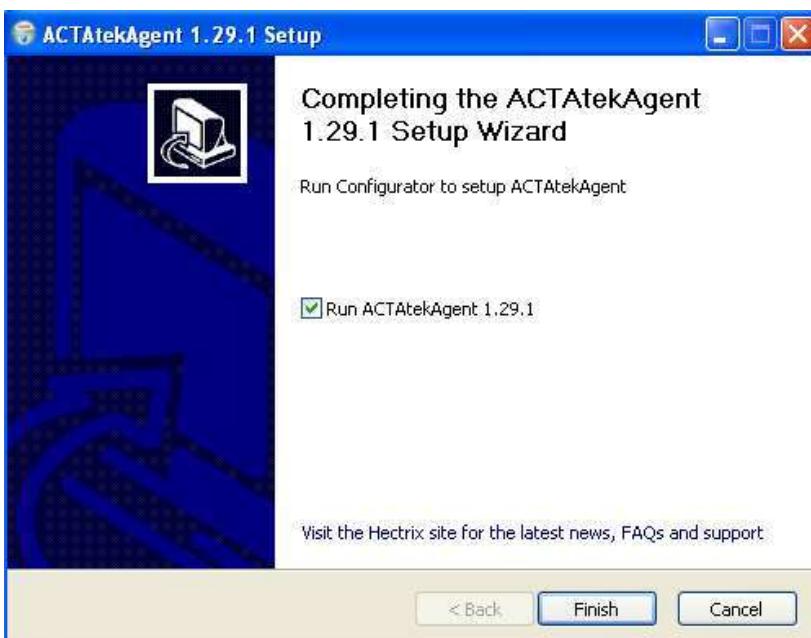
- Start Menu Shortcuts – To add shortcuts in the Start Menu
- Create Desktop Shortcuts – Add shortcuts icon on the Desktop
- Create ODBC Database – Create an ODBC database in the current installing path



- Install as Windows service – Register Agent as a Windows Service



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. If you decided to run the Configurator manually:

Click Start --> Programs --> Hectrix --> ACTAtekAgent --> Configurator

### 1.3. ODBC Setup

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

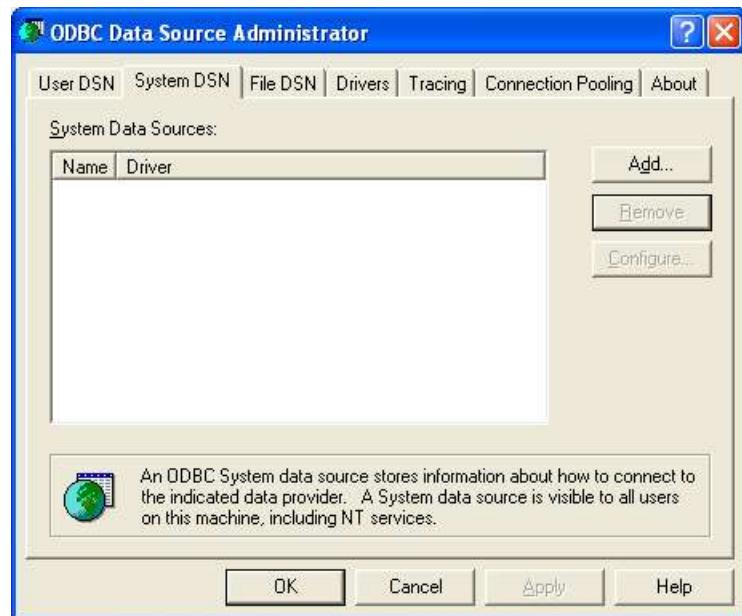
Taking Windows XP as an example on how to do this, please follow the below steps.

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

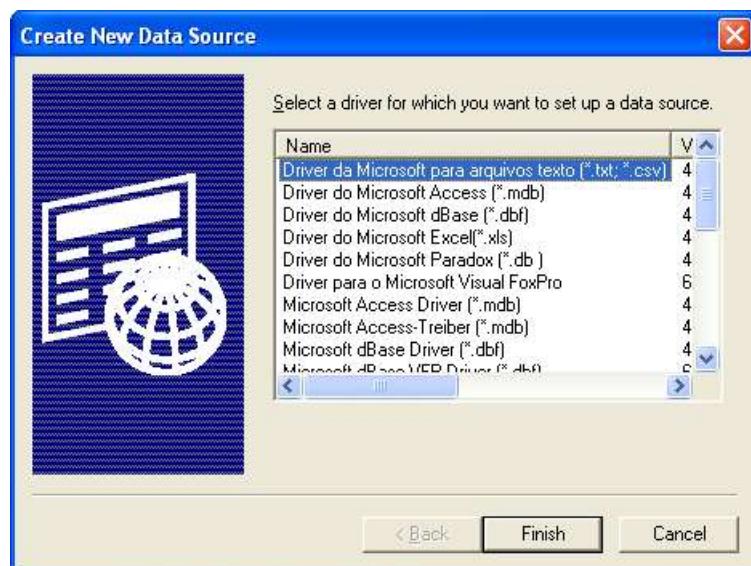


3. Under Administrative Tools, select ‘Data Sources (ODBC)’.

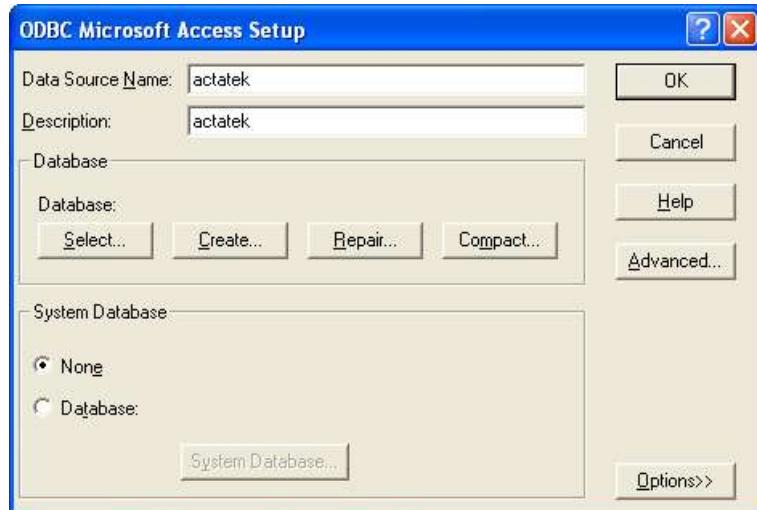
4. Select the second tab from the top left, "System DSN".



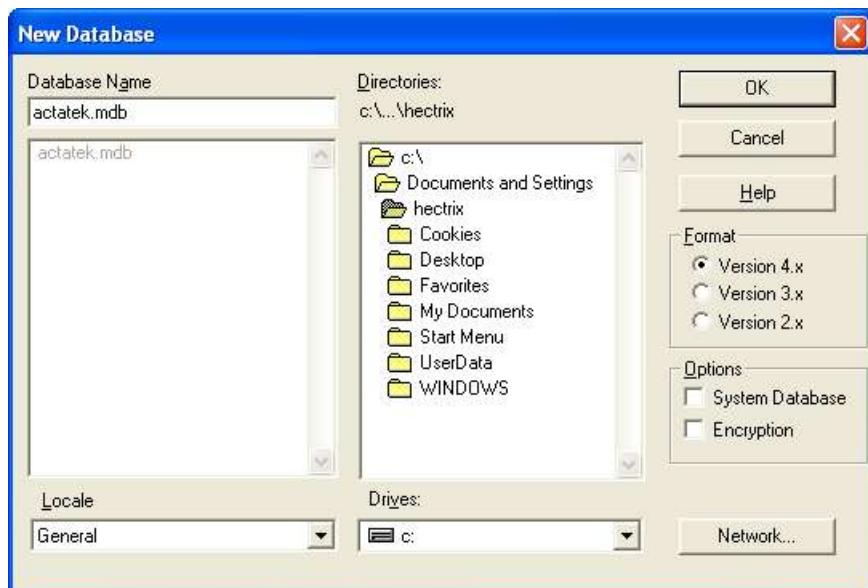
5. Select 'Add...' and "Driver do Microsoft Access (\*.mdb)", and 'Finish'



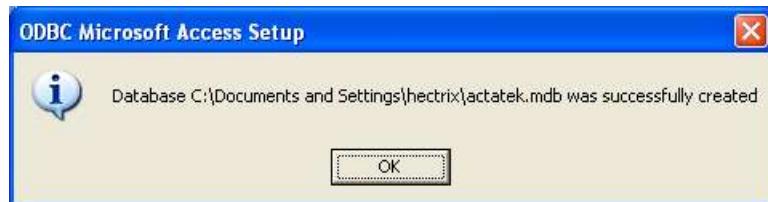
6. To setup an ODBC Microsoft Access file, assign a 'Data Source Name' to be "actatek" and input a description of the database.



7. Select 'Create...' and specify a valid file location, as shown below.



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

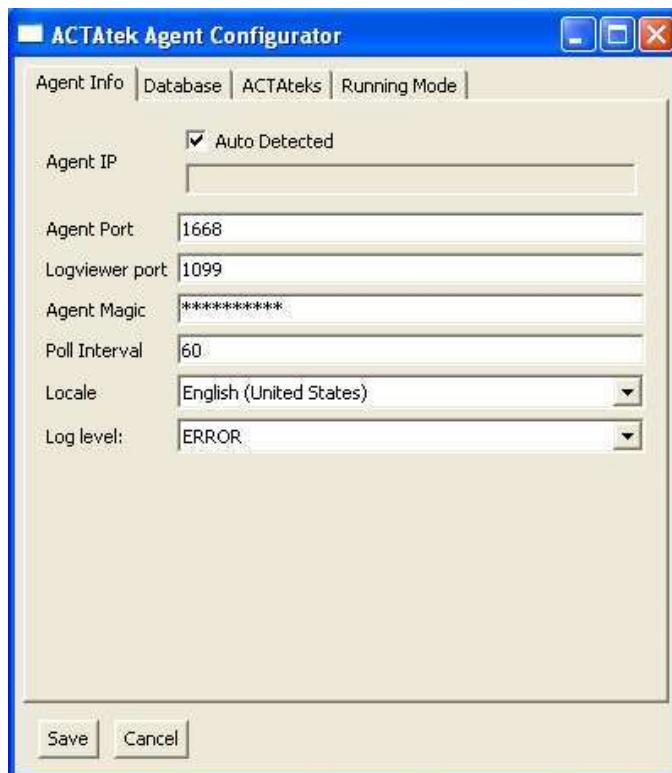


Once successfully created, please continue to next section for Agent configuration. If there is an issue creating the ODBC file, please contact us at support@hectrix.com .

## **1.4. ACTAtek Agent Configurator:**

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

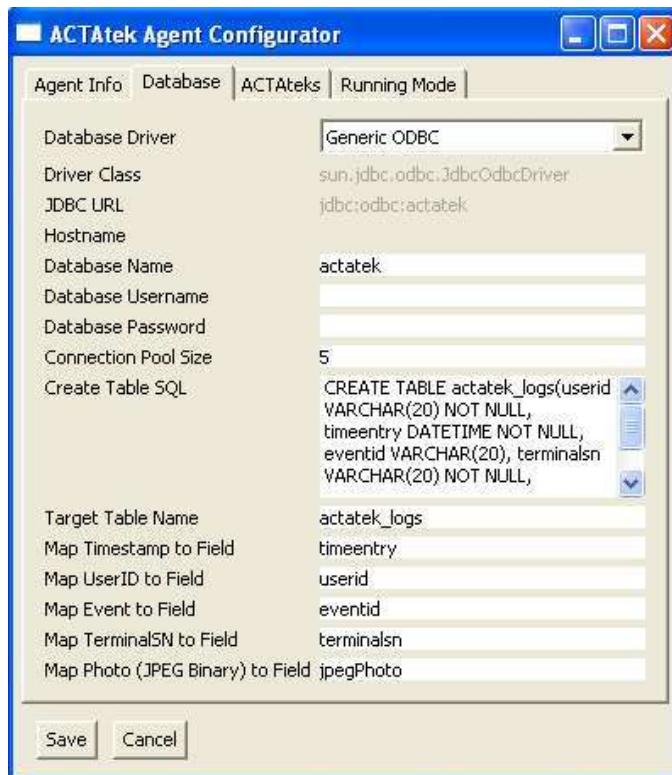
### **1.4.1. Agent Info**



- If 'Auto Detected' is selected, the Agent will automatically try to detect the ACTAtek in your network.
- The default Agent Port is 1668.

- The default Logviewer Port is 1099.
- 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.
- Poll Interval should be set to > 60 seconds.
- Select the appropriate locale to match your ACTAtek device.
- Log Level decides which level of log statement is going to be logged.

### **1.4.2. To connect ACTAtek Agent with a Database**



- **Database Driver:** default Generic ODBC  
ODBC database:
  - must be defined in Window ODBC data source's System DSN
- **Driver Class :** default empty, for JDBC database
- **JDBC URL:** default empty, for JDBC database  
JDBC database
  - must enter database's Driver Class and JDBC URL
  - database jdbc jar files must be copied to ACTAtek's jdbc directory

For example

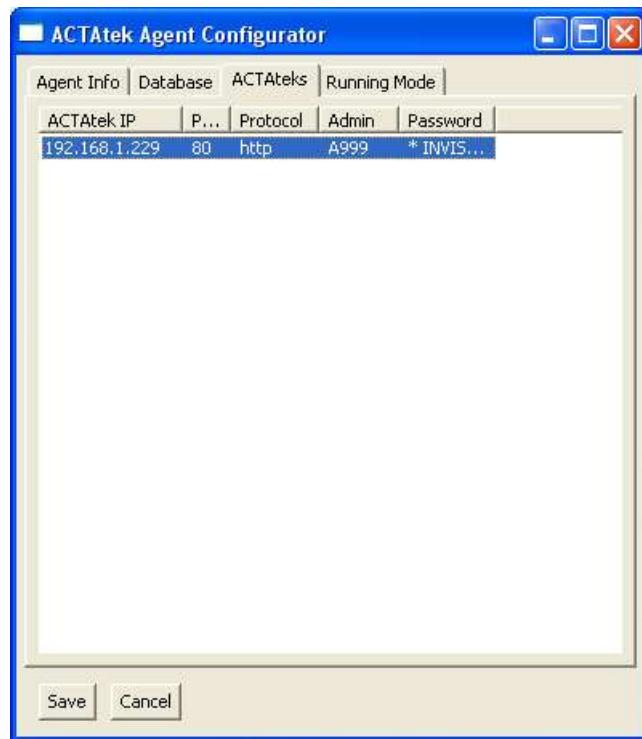
Directory path : C:\Program Files\Hectrix\ACTAtekAgent\jdbc

Oracle : classes12.jar

DB2: Common.jar, db2fs.jar, db2jcc.jar
- **Hostname:** default empty
  - defined for non-ODBC database
  - enter database server ip address and port

- **Database Name:** actatek (default ms-access database)
- **Database Username and Password:** default empty (eg empty for ms-access db)
  - enter database administrator id and password
- **Connection Pool Size:** 5 (default)
- **Create Table SQL:** SQL command, default definition has 6 fields  
Optional: Photo: default long binary (for ms access)  
IP and remark default Varchar(255)
- **Target Table Name:** Use table name same as Create Table SQL
- **Map** Event log field to Table column name or leave empty if not used:  
Map Timestamp to Field, Map UserID to Field, Map Event to Field, Map TerminalSN to Field, Map Photo (JPEG Binary) to Field, Map IP to Field, Map Remark to Field.  
Please use name same as column name as defined in SQL CREATE TABLE

### 1.4.3. ACTAtek Agent (*Attach Primary terminals only*)

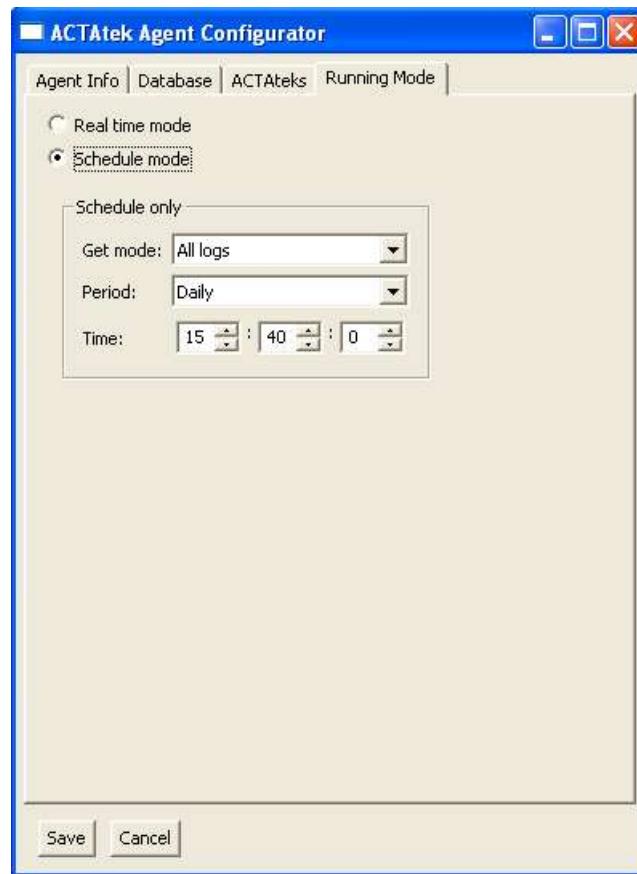


- Right click on the blank space, you will see “Add ACTAtek” or “Delete ACTAtek”
- Please enter the corresponding “ACTAtek IP”, “Port”, “Protocol”, “Admin” and “Password”
- Please be reminded that if you choose Port 80, you need to have http protocol. If you choose Port 443, you need to have https protocol
- The default running mode is Real Time. Running mode is discussed in following section.
- Save it after all setting completed. The following screen will appear:



- The configuration will be effective at Next ACTAtekAgent startup.

#### 1.4.4. ACTAtekAgent Running Mode



##### Real Time Mode

- Real time mode is the default for real time event log transfer.

##### Schedule Mode

- Schedule mode is for schedule log transfer at specify time.

Get mode: Previous day logs: transfer only previous day event log.

All logs: Transfer all event log. If log already found in database, ACTAtekAgent will not insert duplicate.

Period: Default run Daily.

Time: The startup time of daily event log transfer.

## 1.5. Starting ACTAtekAgent

ACTAtekAgent can be started by one of the following ways:

- ACTAtekAgent can be started as an application.

Note: If the desktop is reboot, user has to manually startup ACTAtekAgent again.

OR

- ACTAtekAgent can be started as a Window Service.

ACTAtekAgent is automatically startup as a service after Window started.

### 1.5.1. Start ACTAtekAgent as application

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

No.	Description	Type	Serial No.	IP Address	Camera	Door	Last Updated To Secondary
1	ACTAtek	Primary	00111DFFFFFF	192.168.1.184	Camera	Unlock Door	-

No.	IP Address	Status	Last Updated Time	Active	Profile
No record found.					

2. Now, click Start --> Programs --> Hectrix --> ACTAtekAgent --> ACTAtekAgent 1.29.1 and begin the program. You will see the following screens. (note: The above startup is default to msdos running mode)

No.	Description	Type	Serial No.	IP Address	Camera	Door	Last Updated To Secondary
1	192.168.8.34	Primary	00111DA03669	192.168.8.34	Camera	Unlock Door	--

No.	IP Address	Connection	Send Log Status	Last Updated Time	Profile
1	192.168.8.61	Connected	Registered	--	No Profile available

**IP Address:** IP address of desktop running ACTAtekAgent

**Connection:** Indicate network connection status between Terminal and ACTAtekAgent

**Send Log Status:** Indicator for send event log to ACTAtekAgent

Registered – First time connect and registered at ACTAtekAgent

Sending – Terminal is current sending event log to ACTAtekAgent.

Failed to send – Terminal not able to send log to ACTAtekAgent.

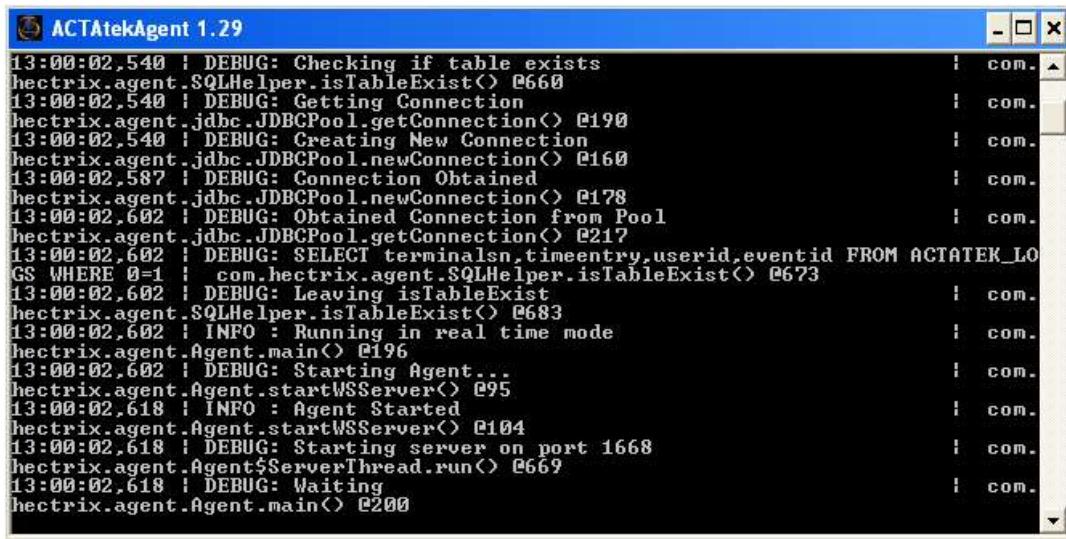
Synchronized – Terminal send log completed

Last Updated Time – Last send log completion time

**Profile:** Optional for remote modem log transfer.

Once ACTAtekAgent started, the ACTAtekAgent console window will be displayed :

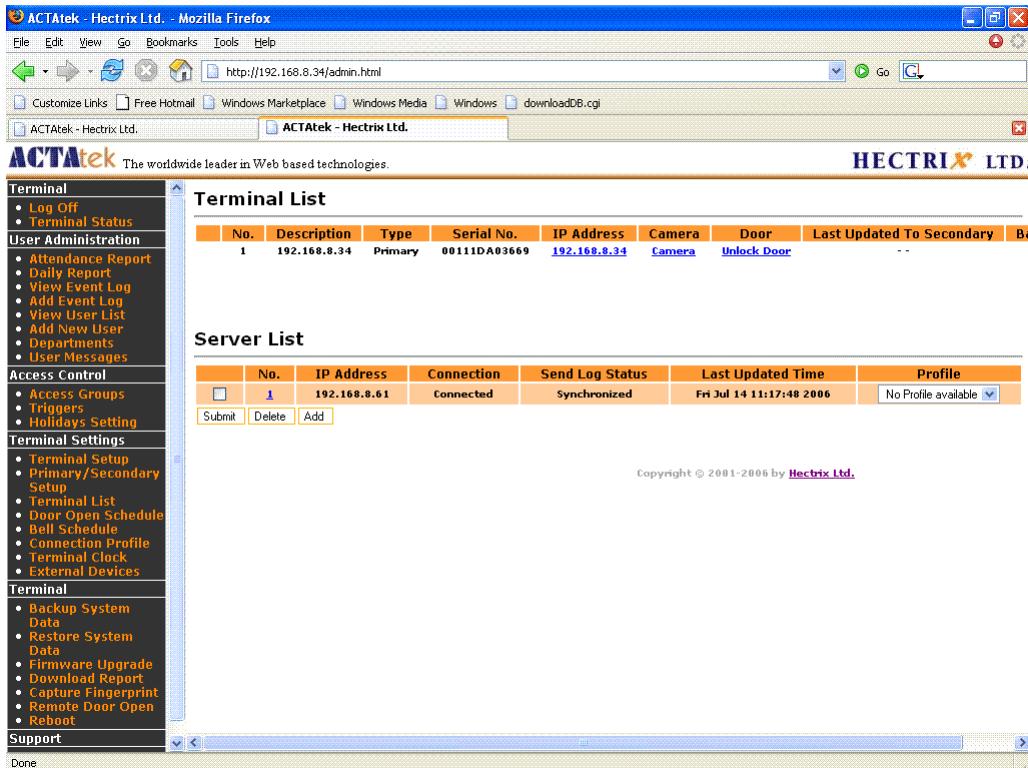
3. Login in the ACTAtek to add a few sample event logs, as shown below:



```

ACTAtekAgent 1.29
13:00:02,540 ! DEBUG: Checking if table exists
hectrix.agent.SQLHelper.isTableExist() @660
13:00:02,540 ! DEBUG: Getting Connection
hectrix.agent.jdbc.JDBCPOOL.getConnection() @190
13:00:02,540 ! DEBUG: Creating New Connection
hectrix.agent.jdbc.JDBCPOOL.newConnection() @160
13:00:02,587 ! DEBUG: Connection Obtained
hectrix.agent.jdbc.JDBCPOOL.newConnection() @178
13:00:02,602 ! DEBUG: Obtained Connection from Pool
hectrix.agent.jdbc.JDBCPOOL.getConnection() @217
13:00:02,602 ! DEBUG: SELECT terminalsn,tmeentry,userid,eventid FROM ACTATEK_L0
GS WHERE 0=1 ! com.hectrix.agent.SQLHelper.isTableExist() @673
13:00:02,602 ! DEBUG: Leaving isTableExist
hectrix.agent.SQLHelper.isTableExist() @683
13:00:02,602 ! INFO : Running in real time mode
hectrix.agent.Agent.main() @196
13:00:02,602 ! DEBUG: Starting Agent...
hectrix.agent.Agent.startWSServer() @95
13:00:02,618 ! INFO : Agent Started
hectrix.agent.Agent.startWSServer() @104
13:00:02,618 ! DEBUG: Starting server on port 1668
hectrix.agent.Agent$ServerThread.run() @669
13:00:02,618 ! DEBUG: Waiting
hectrix.agent.Agent.main() @200

```



The screenshot shows the ACTAtek web-based management interface. On the left, a sidebar menu lists various administrative functions:

- Terminal**: Log Off, Primary Status
- User Administration**: Attendance Report, Daily Report, View Event Log, Add Event Log, View User List, Add New User, Departments, User Messages
- Access Control**: Access Groups, Triggers, Holidays Setting
- Terminal Settings**: Terminal Setup, Primary/Secondary Setup, Terminal List, Door Open Schedule, Bell Schedule, Connection Profile, Terminal Clock, External Devices
- Terminal**: Backup System Data, Restore System Data, Firmware Upgrade, Download Report, Capture Fingerprint, Remote Door Open, Reboot
- Support**

The main content area displays two tables:

No.	Description	Type	Serial No.	IP Address	Camera	Door	Last Updated To Secondary	Be
1	192.168.8.34	Primary	00111DA03669	192.168.8.34	Camera	Unlock Door	-	-

No.	IP Address	Connection	Send Log Status	Last Updated Time	Profile
1	192.168.8.61	Connected	Synchronized	Fri Jul 14 11:17:48 2006	No Profile available

At the bottom right of the interface, there is a copyright notice: "Copyright © 2001-2006 by [Hectrix Ltd.](#)".

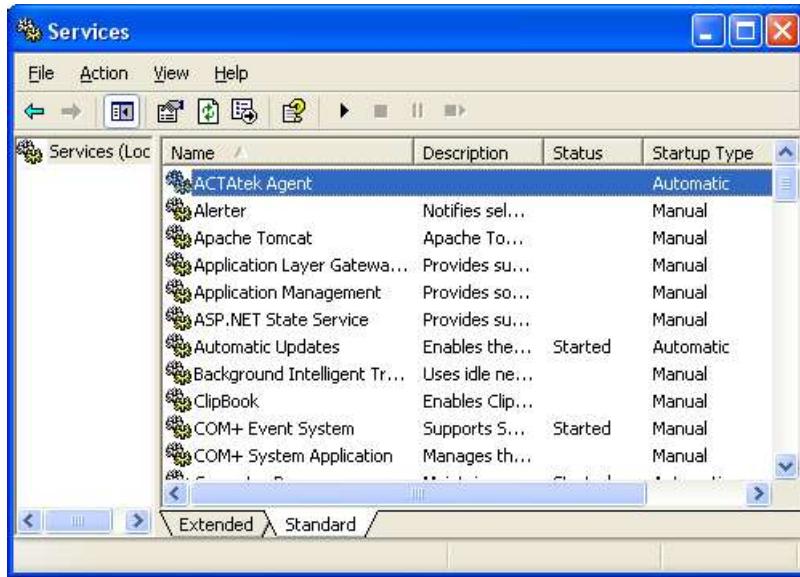
Once the field "Status" under the Server list (Terminal List) shows "Connected", event logs are being captured by the Agent in real time.

### Stop ACTAtek Agent

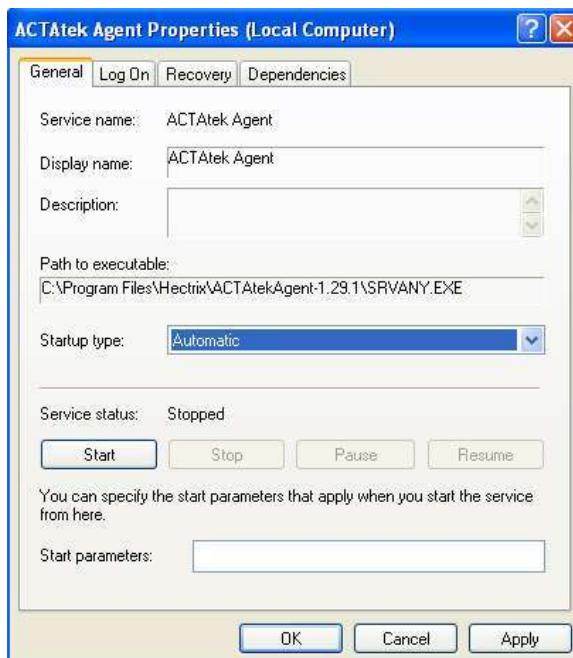
- To terminate ACTAtekAgent, user can simply close the ACTAtek Agent console window.

### 1.5.2. Start ACTAtekAgent as Windows service

1. Go to the Control Panel -----> Administrative Tools -----> Services:



2. Right click on the ACTAtekAgent service name and select "Properties". Then click "Start" to start the ACTAtekAgent.



ACTAtekAgent running status messages can be found in Windows Event Viewer:

Go to Control Panel -----> Administrative Tools -----> Event Viewer -----> Application

**Stop ACTAtek Agent**

- To terminate ACTAtek Agent, right click on the ACTAtekAgent service name and select “Properties”. Then click “Stop” to stop the ACTAtekAgent.

This will work when your database is located at a different computer or if you are using the Agent to write a database file such as Access. If you are running a database service such as MySql or Postgres and using the ACTAtek Agent on the same computer there is a different procedure to run the Agent in the background automatically. What happens is that the ACTAtek Agent runs before the database service starts running, therefore it shuts down the ACTAtek Agent service. Here is the work around just follow these steps below:

**Step 1. Make sure the ACTAtek Agent is running manually**

- Go to the Control Panel -----> Administrative Tools -----> Services
- Double click ACTAtek Agent
- Pull down the tab to Manual
- Press Apply button

**Step 2. Ensure the Agent is registered in the ACTAtek unit**

- Log into the ACTAtek unit and select Terminal List
- If there is no Agent listed (or if there is an Agent listed please check the settings are correct) under Server List click Add and enter the following:
  - ACTAtek Agent IP (the picture below is just an example)

- Port number is usually 1668 (check the ACTAtek Agent Configuration for the port number)
- Magic (default magic code is: actatek123)
- Send all logs when registered should be Enabled
- Click Modify

**Server List**

---

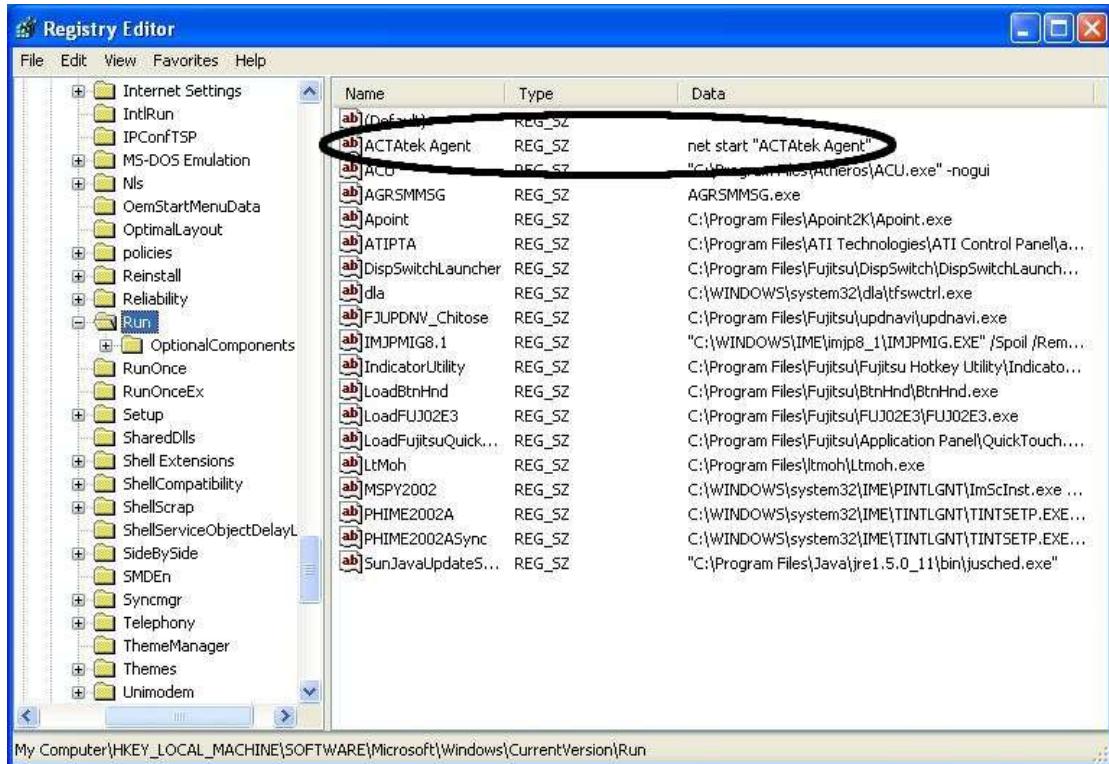
Modify Server

IP Address	192.168.1.19
Port	1668
Agent Version	1.2
Magic	*****
Send all logs when register	<input checked="" type="radio"/> Enabled <input type="radio"/>
Profile	No Profile available
<b>Modify</b>	

**Step 3.** Run the ACTAtek Agent service on boot up

You will need to add the Agent to run in the Windows registry.

- Goto command prompt and run the windows registry (Start->Run->regedit)
- Click HKEY\_LOCAL\_MACHINE--->SOFTWARE--->Microsoft-->Windows--->CurrentVersion--->Run
- Right click the right hand pane and select New->String Value
- Type ACTAtek Agent press enter
- Right-click ACTAtek Agent and select modify and type: net start “ACTAtek Agent” and press enter



- reboot the machine
- In the Terminal List of the ACTAtek you should see Connection: Connected and Send Log Status:Synchronized. This means the ACTAtek Agent is running.

### Server List

	No.	IP Address	Connection	Send Log Status
<input checked="" type="checkbox"/>	1	192.168.1.19	Connected	Synchronized
<input type="button" value="Submit"/>	<input type="button" value="Delete"/>	<input type="button" value="Add"/>		

## 1.6. De-registering ACTAtek

To de-register terminal from sending log to ACTAtekAgent unit, click Start --> Programs --> Hectrix --> ACTAtekAgent --> Deregister. It will deregister terminals found in configurator file and display them in the ACTAtekAgent console window.



There is an alternative method to de-register the ACTAtek 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. The terminal will stop sending log to ACTAtekAgent.

No.	Description	Type	Serial No.	IP Address	Camera	Door	Last Updated To Secondary
1	ACTAtek	Primary	00111DFFFF	192.168.1.184	Camera	Unlock Door	-

No.	IP Address	Status	Last Updated Time	Active	Profile
1	192.168.1.180	Connected	Wed Jun 22 12:36:12 2005	*	No Profile available

User should delete the terminal from ACTAtekAgent configurator. The configuration will be effective at Next ACTAtekAgent startup.

## 1.7. Viewing the Database Logs

### 1. Using Log Viewer:

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

The screenshot shows a Windows application window titled "Log Viewer". The window has a standard title bar with minimize, maximize, and close buttons. Below the title bar is a table with four columns: "Timestamp", "TerminalSN", "User ID", and "Event". The table contains 24 rows of log data. The last row in the table shows a timestamp of "2005-06-22 20:36:11 CST", a TerminalSN of "00111DFFFFFF", a User ID of "1", and an Event of "F1". At the bottom of the window, there is a text input field labeled "Max Rows to Display (-1 for unlimited):" and a "Update" button.

Timestamp	TerminalSN	User ID	Event
2005-06-22 19:25:34 CST	00111DFFFFFF	1	OUT
2005-06-22 19:25:43 CST	00111DFFFFFF	1	OUT
2005-06-22 19:55:36 CST	00111DFFFFFF	1	OUT
2005-06-22 19:59:09 CST	00111DFFFFFF	1	OUT
2005-06-22 19:59:49 CST	00111DFFFFFF	1	OUT
2005-06-22 20:06:32 CST	00111DFFFFFF	1	OUT
2005-06-22 20:08:38 CST	00111DFFFFFF	1	OUT
2005-06-22 20:18:18 CST	00111DFFFFFF	1	OUT
2005-06-22 20:18:45 CST	00111DFFFFFF	1	OUT
2005-06-22 20:20:44 CST	00111DFFFFFF	1	OUT
2005-06-22 20:20:54 CST	00111DFFFFFF	1	OUT
2005-06-22 20:22:38 CST	00111DFFFFFF	1	OUT
2005-06-22 20:22:43 CST	00111DFFFFFF	1	OUT
2005-06-22 20:22:48 CST	00111DFFFFFF	1	OUT
2005-06-22 20:31:06 CST	00111DFFFFFF	1	OUT
2005-06-22 20:35:57 CST	00111DFFFFFF	1	OUT
2005-06-22 20:36:11 CST	00111DFFFFFF	1	F1

### 2. Using MS Access:

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

Note: ACTAtekAgent's Database must be started before viewing events in Logviewer.

## 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.g 1521)  
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. Connecting ACTAtek Agent with MS SQL Server**

Currently, ACTAtekAgent may require an ODBC system data source to act as a bridge to connect to the MS SQL Server. The following will illustrate how to setup an example of such ODBC connection to the data provider and the corresponding ACTAtekAgent configuration.

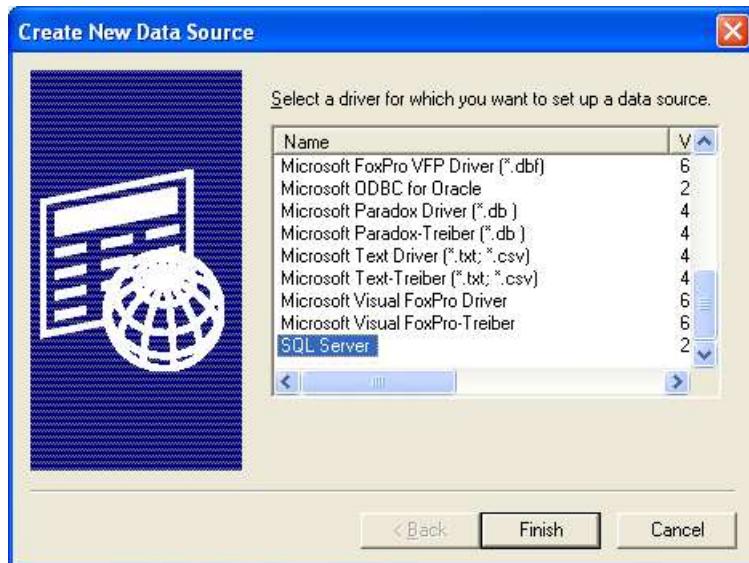
### **1.10.1. ODBC Setup**

From Windows XP,

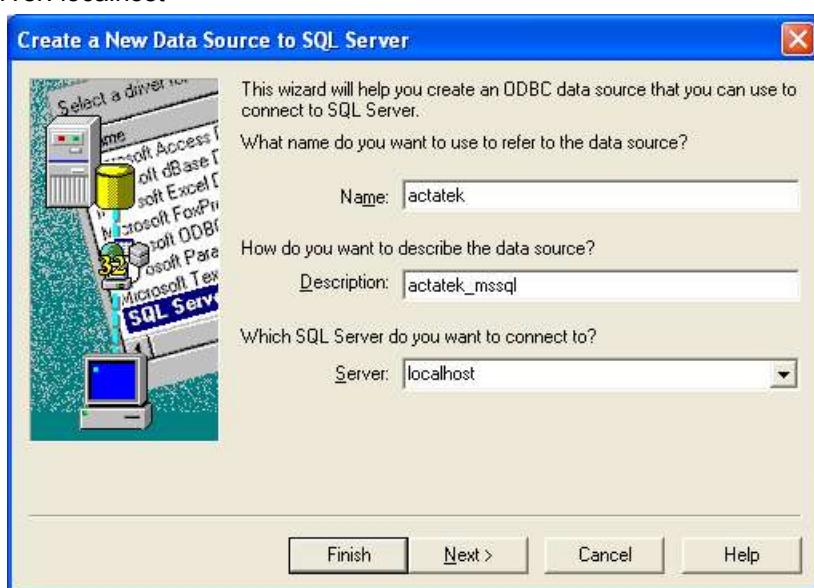
1. Start -> Control Panel
2. Select Administrative Tools;
3. Under Administrative Tools, select Data Sources (ODBC)



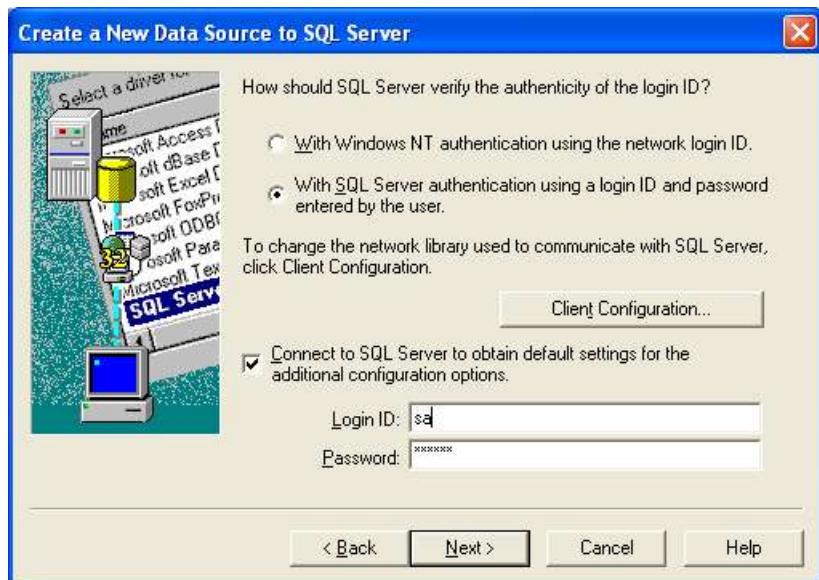
4. Select the System DSN tab from top and click 'add'. From 'Create New Data Source', SQLServer and click 'Finish'



5. Enter data source, description, sqlserver information and click 'next'. For example: Data-source name : actatek  
Description : actatek\_mssql  
SQL Server: localhost



6. Select the SQL Server authentication as defined by your Administrator. For example we select 'With SQL Server Authentication using a login ID and password entered by the user'. Click the check box 'Connect to SQL Server to obtain default settings for the additional configuration options' and enter Login ID and Password.



If the authentication is incorrect, you will receive a dialog box similar to this.  
Please verify the login id and password is correct.



7. Select the check box 'Change the default database to:' and select your default database for example Master and click 'Next'.

Please set the following option according to your database setting:

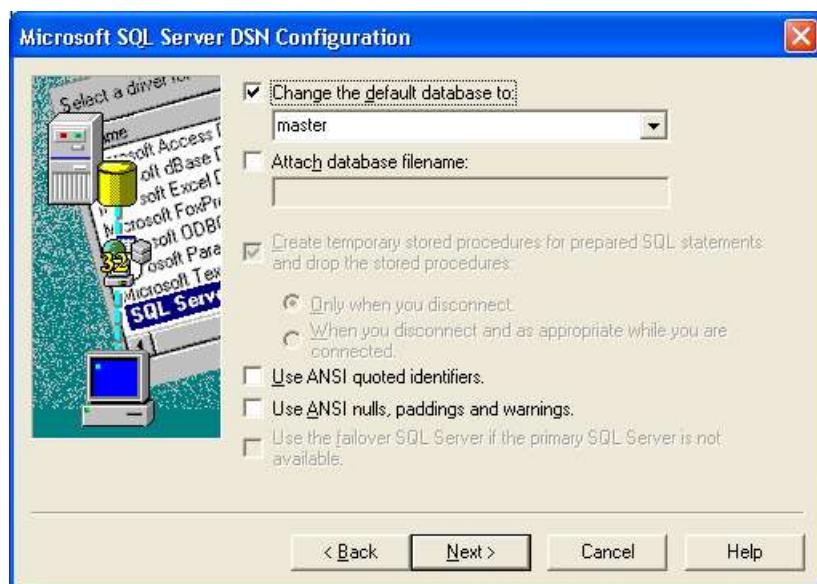
Suggest to uncheck both box :

'use ANSI quoted identifiers' and 'use ANSI nulls, paddings and warnings'.

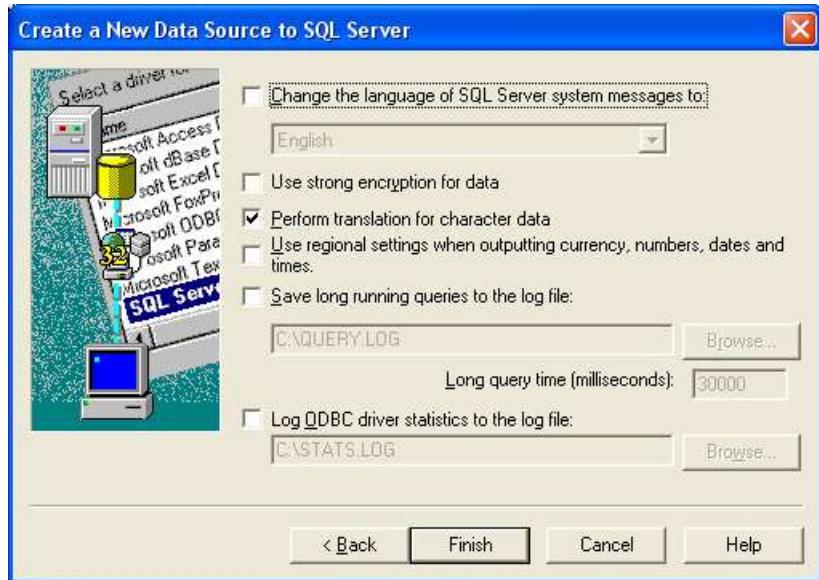
The quoted identifier setting determines what meaning Microsoft SQL Server gives to double quotation marks (").

The ANSI nulls option controls both database default nullability and comparisons against null values.

The ANSI padding controls the way the column stores values shorter than the defined size of the column, and the way the column stores values that have trailing blanks in **char**, **varchar**, **binary**, and **varbinary** data.



Click 'Finish'

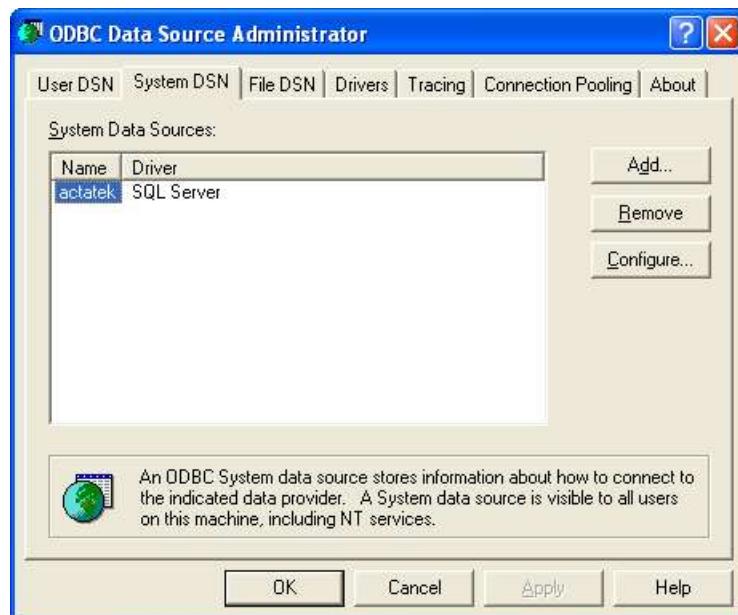


8. Verify the connection is correct by clicking the 'Test Data Source'. A successful message is returned if the settings are correct. Click 'OK' to continue.



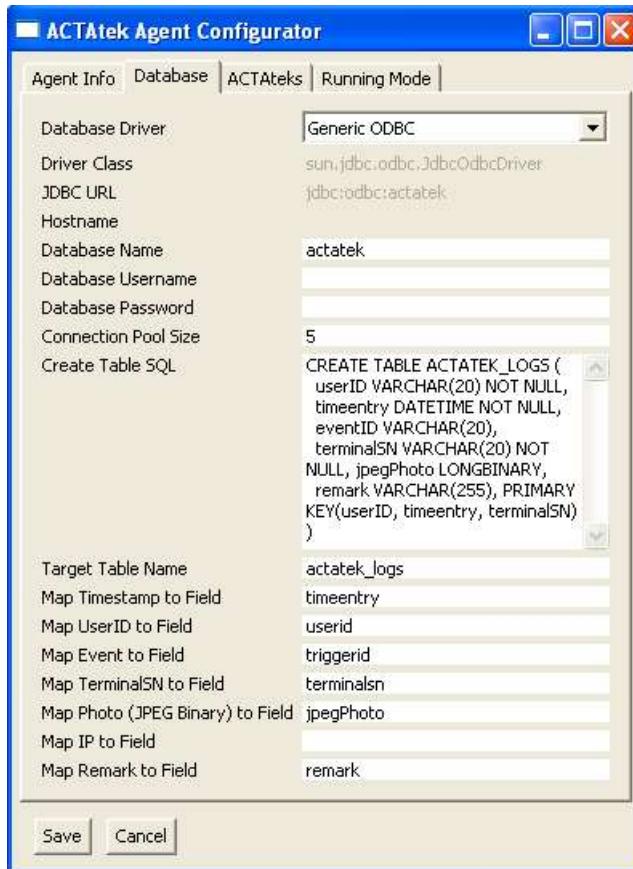
9. In ODBC Microsoft Server Setup dialog box, click 'OK' to complete the setup. The ODBC Data Source Administrator will display a new entry 'actatek' in System Data Sources.

Click 'OK' to complete the ODBC Data Source setup.



### **1.10.2. ACTAtekAgent Configurator**

Since the database setting is different for each customer, it is highly recommended that you consult with your DBA for the database setting, table maintenance and archive historical data.

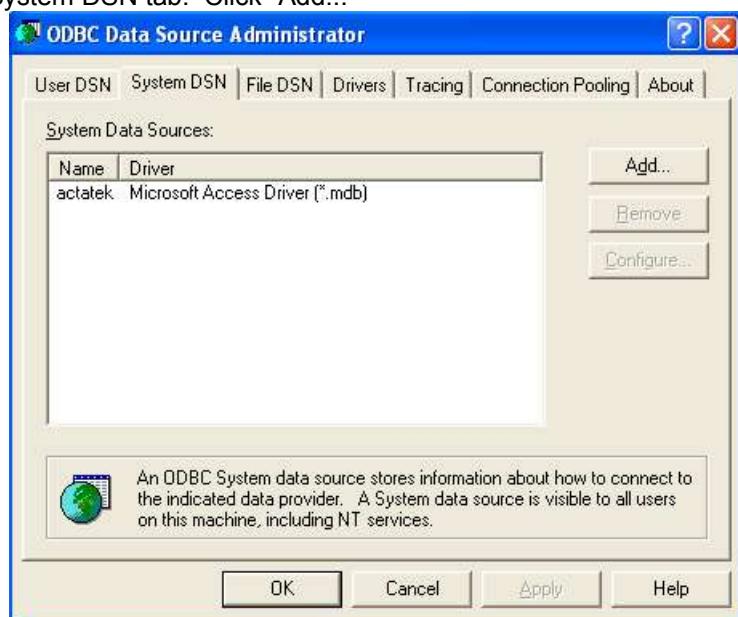


- Database Driver: Generic ODBC
- Database Name: actatek (default, and set it in the above steps)
- Database Username and Password: We haven't set it. So, leave it blank
- Connection Pool Size: 5 (default)
- Create Table SQL: SQL command
- Target Table Name, Map Timestamp to Field, Map UserID to Field,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

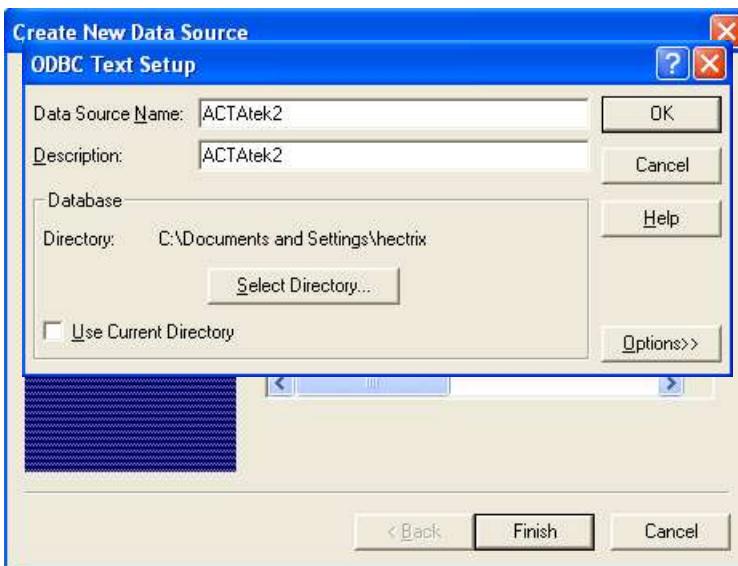
## 1.11. Connecting ACTAtek Agent to output .txt / .csv format

### 1.11.1. ODBC Setup

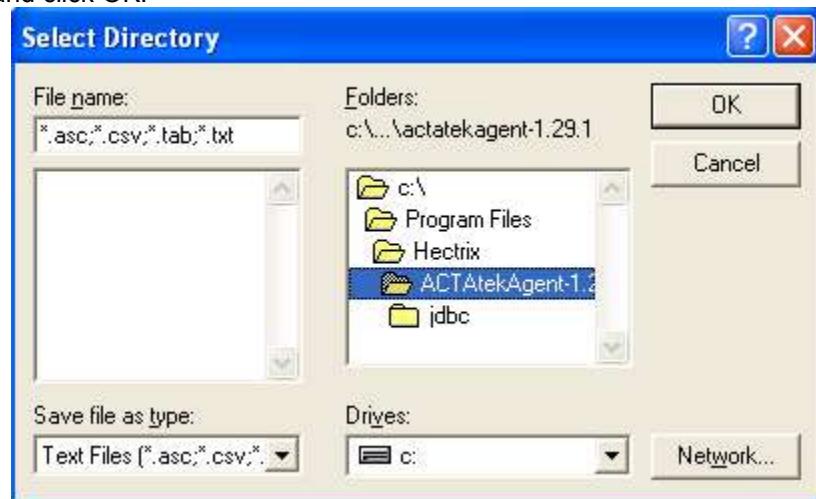
1. From Windows XP,
2. Start -> Control Panel
3. Select Administrative Tools;
4. Under Administrative Tools, select Data Sources (ODBC)
5. Select the System DSN tab. Click "Add..."



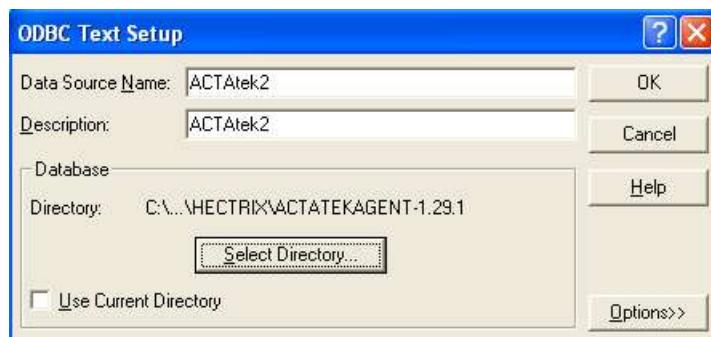
6. From "Create New Data Source", choose "Microsoft Text Driver (\*.txt, \*.csv)", and "Finish".



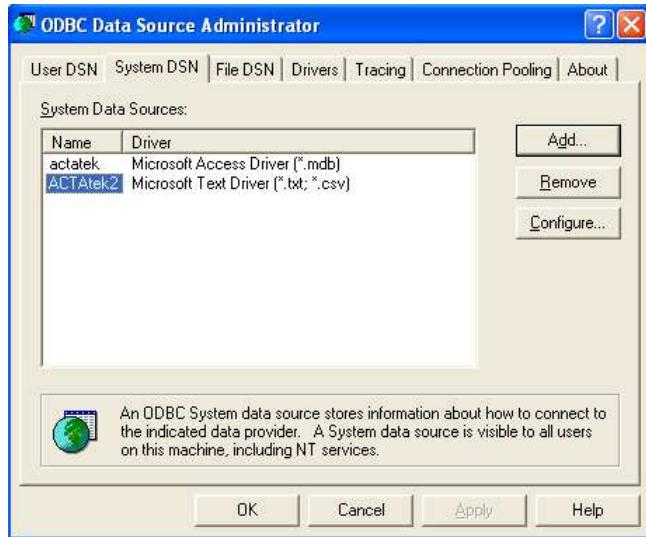
10. Select “Select Directory...”. Choose directory (C:\Program Files\Hectrix\ACTAtekAgent-1.29.1) and click OK.



11. Click “OK” to confirm.



12. Data source should now appear in the list. Click “OK” to finish.



### **1.11.2. ACTAtek Agent Configurator**



Database Driver: Generic ODBC

Database Name: ACTAtek2

Database Username and Database password: We haven't set it. So, leave it blank.

Connection Pool Size: 5

Create Table SQL:      CREATE TABLE ACTAtek2.txt ( userID Char, timeentry Char,

```
    eventID Char, terminalSN Char  
)
```

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.

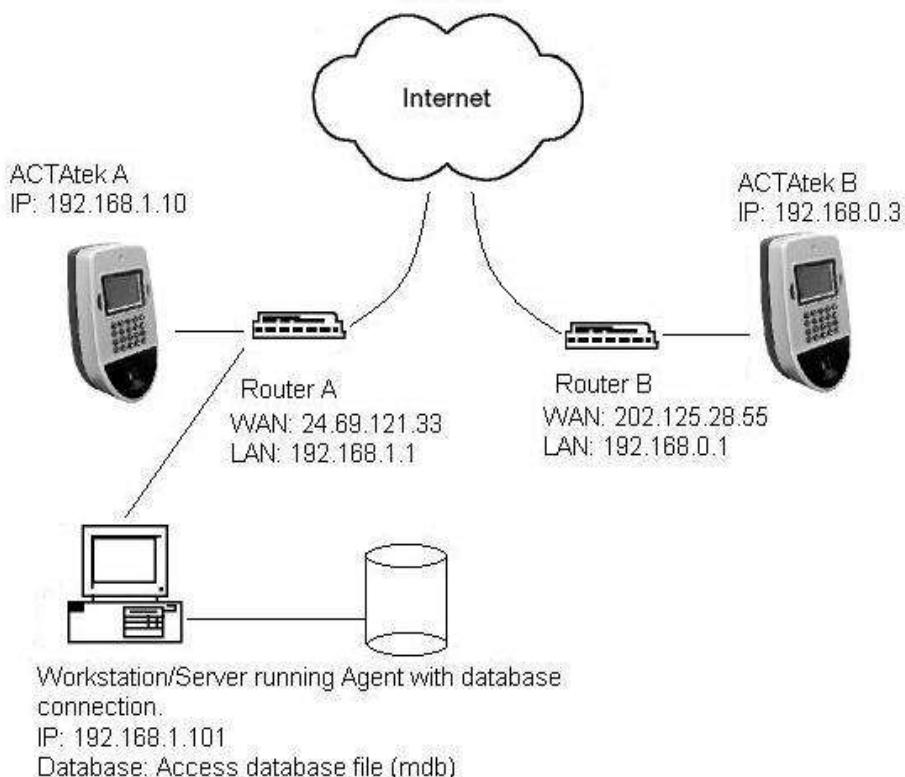
## 1.12. Connecting ACTAtek Agent Behind Routers

### 1.12.1. Example Scenario

Two standalone ACTAteks running on different sites with traffic filtered by routers. Assuming the default port 80 is used for the ACTAtek's webserver, each router is configured such that the web traffic (port 80/443) is mapped to the ACTAtek's IP accordingly. The Agent, by default, uses port 1688 for incoming connection, this port will need to be opened as you will see on the router setup. The setup is also assuming Access database via ODBC and "Real time Mode" is being used.

The goal is to install ACTAtek Agent on one of the sites and retrieve the data logs from both ACTAtek devices into one database.

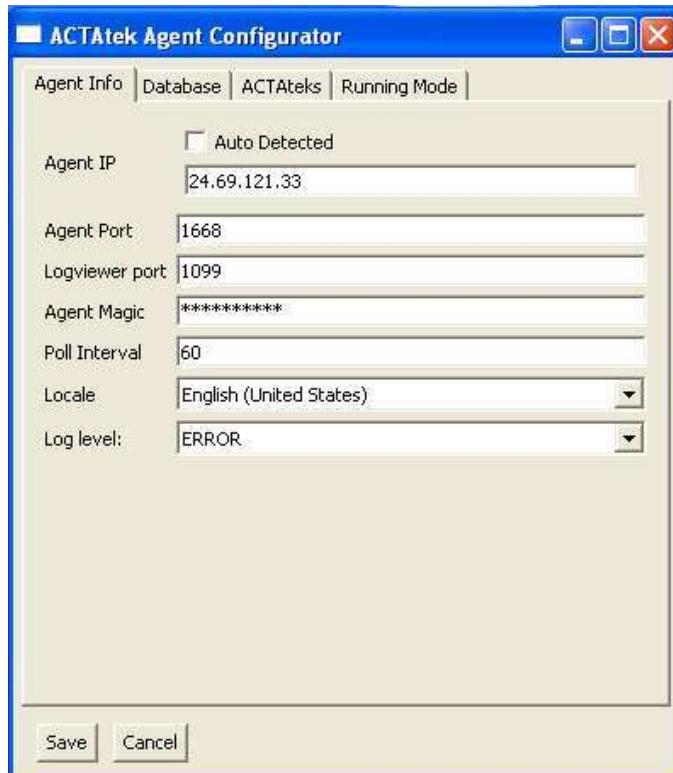
**NOTE: The IP addresses shown below are arbitrarily picked for the example only.**



- The above depicted two standalone ACTAteks with Agent setup to extract both devices data.

### 1.12.2. Agent Configurator Setup

- Under “Agent Info” tab, uncheck the “Auto Detected” box. Type the IP address of the router’s WAN IP. From the example figure, for instance, it would be “24.69.121.33”.



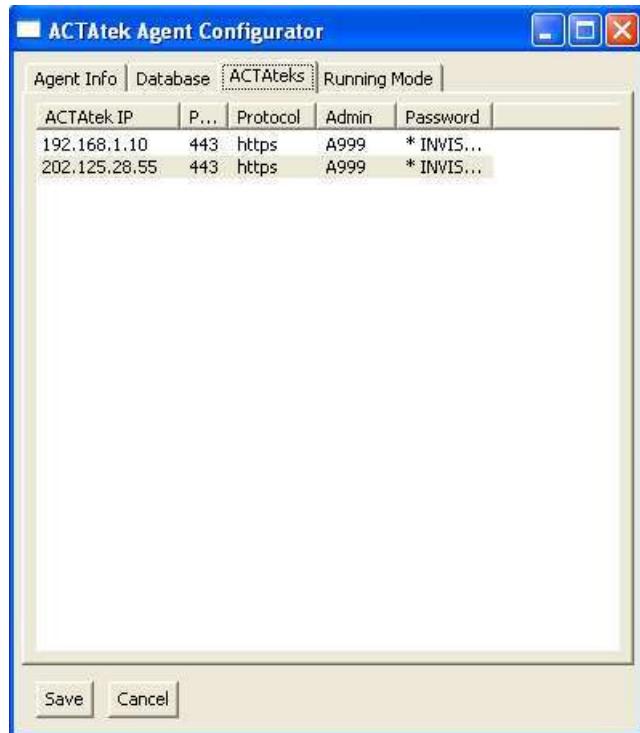
- Agent Configurator. Router A's WAN IP address is used, allowing ACTAtek B to talk back to the Agent.

**NOTE:** The “Agent Port” under “Agent Info” is default at 1668 and this document assume this port number is used for the Router A setting.

2. Under “ACTAteks” tab, there will be two ACTAtek entries in the configurator using the above example scenario.

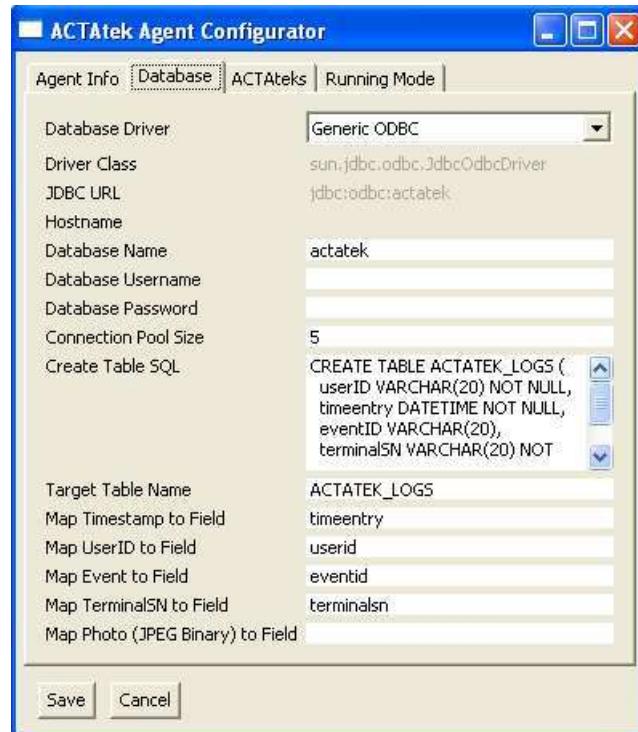
Enter the ACTAtek information behind Router A, ie. “192.168.1.10”. Fill out the rest of the information for the entry (ie. Port, Admin and Password).

Enter the ACTAtek on the remote site using Router B's IP, ie. “202.125.28.55”. Fill out the rest of the information for the entry (ie. Port, Admin and Password)



- Agent Configurator. The first ACTAtek IP indicates the ACTAtek A, which is within the same private network where Agent is installed. The second IP refers to the WAN IP address of Router B, which the ACTAtek B is connected to.

3. Finish the Agent Configurator by filling out necessary entry under the “Database” tab. Click “Save” to complete the Agent setup.



- Agent Configurator. Database setting is default. Configuration may vary if different database setting applies.

### 1.12.3. Router Setup



- Buffalo AirStation Broadband Router.

#### Router A

Please refer to your router's documentation for appropriate settings as information presented below is only for reference.

- Forward the traffic on port 1668 to the workstation/server running ACTAtek Agent. From the example figure, the setting would be:

24.69.121.33:1668 <----> 192.169.1.101:1668

Network Address Translation Setup - Add NAT Table ?			
Group ?		New Group <input type="button" value="▼"/> Name: Agent	
WAN Side IP Address ?		AirStation's WAN IP Address <input type="button" value="▼"/> Manual IP Address: 24.69.121.33	
Protocol (WAN) ?	All		
	ICMP		
	Manual	Protocol Number	<input type="text"/>
TCP/UDP	Port ?	TCP Port Manual Setup <input type="button" value="▼"/> Port Number: 1668	
LAN IP Address ?		Manual IP Address <input type="button" value="▼"/> Manual IP Address: 192.168.1.101	
Protocol (LAN) ?		TCP/UDP Port Forwarding Port Number: 1668	
<input type="button" value="Add to NAT Table"/> <input type="button" value="Close"/>			
Done			

**Router B**

1. Forward the web traffic (port 80/443) from the WAN to ACTAtek behind this router.

202.125.28.55:80 <---> 192.168.0.3:80

202.125.28.55:443 <---> 192.168.0.3:443

Network Address Translation Setup - Add NAT Table ?

Group ?	New Group <input type="button" value="..."/> Name: <input type="text" value="ACTAtekB"/>
WAN Side IP Address ?	AirStation's WAN IP Address <input type="button" value="..."/> Manual IP Address: <input type="text" value="202.125.28.55"/>
Protocol (WAN) ?	<input checked="" type="radio"/> All <input type="radio"/> ICMP <input checked="" type="radio"/> Manual Protocol Number: <input type="text"/> <input type="radio"/> TCP/UDP Port ? HTTP (TCP Port: 80) Port Number: <input type="text"/>
LAN IP Address ?	Manual IP Address <input type="button" value="..."/> Manual IP Address: <input type="text" value="192.168.0.3"/>
Protocol (LAN) ?	TCP/UDP Port Forwarding Port Number: <input type="text" value="80"/>

javascript:window.open('../help/nat\_wan\_protocol.htm', 'help', 'width=400,height=300,scrollbars=yes,resizable...')

## **1.13. Trouble Shooting**

### **1.13.1. Network Troubleshooting**

#### **1.13.1.1. Network basic command description:**

##### **1.13.1.1.1. 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:

##### **1.13.1.1.2. 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

##### **1.13.1.1.3. 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)

##### **1.13.1.1.4. 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*

#### **1.13.1.1.5. 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.

### **1.13.1.2. Network Troubleshooting cases**

#### **1.13.1.2.1. Always show “Disconnected” in the Server List of the Terminal List using web browser**

To check:

Start the ACTAtek Agent and use another computer in the SAME network to connect to the computer with the PC with the ACTAtek 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 ACTAtek Agent installed and 1668 is the port of the ACTAtek 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.

#### **1.13.1.2.2. “FATAL: Server Thread died unexpectedly” in command prompt**

**Cause:** A java process javaw was not cleanly started

**Action:**

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

In dos prompt type: agent -d 3

#### **1.13.1.2.3. 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 ACTAtek in use. Delete ALL items under the server list.
- Go to the Configurator of the Agent --> Tab ACTAteks
- Right click your mouse to re-add the ACTAtek (... Make Sure ALL information is accurate!) then, click Save.
- Right click your mouse and add ACTAtek (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-1.29.1>)
- 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)

#### **1.13.1.2.4. “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.

## **1.14. 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.

### **1.14.1. General Messages**

#### **1.14.1.1. No Trusted Certificate found**

**Cause:**

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

**Action:**

- Set correct terminal id/password

#### **1.14.1.2. 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.

#### **1.14.1.3. 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

**1.14.1.4. *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.

**1.14.1.5. *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.

**1.14.1.6. *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

**1.14.1.7. *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

**1.14.1.8. *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

**1.14.2. Database related messages:****1.14.2.1. Start Agent failed:****1.14.2.1.1. 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

**1.14.2.1.2. Create Table: Invalid authorization specification****Symptom:**

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

**Cause:**

- Message from Mysql database. Wrong Database Username/Password

**Action:**

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

**1.14.2.1.3. 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.

## ***1.15. Reporting Problems to Support:***

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

### ***1.15.1. 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

### ***1.15.2. Customer information:***

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

**1.15.3. 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

**1.15.4. 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?