

SMS Database System

Quick Start

[Version 1.0.3]



ICP DAS CO., LTD.

泓格科技股份有限公司

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1 Product Overview

The purpose of this document is to describe the procedure for using the SMS Database System. The SMS Database System is a software tool provided by ICP DAS that stores SMS messages in database. Along with hardware provided by ICP DAS : GT-530 (intelligent SMS transmitter) and GTM-201 (GPRS/ GSM Modem), it allows users to view SMS messages sent by GT-530 immediately or to retrieve later.

Features:

- Supports MS SQL Server and MS Access 2003 database
- Provides backup mechanism in local site:
when experiencing unexpected disconnection and not able to transmit and store data in remote SQL Server database, the data will be safely kept in local site.
- Allows to view real-time or historical data

2 Before Installation



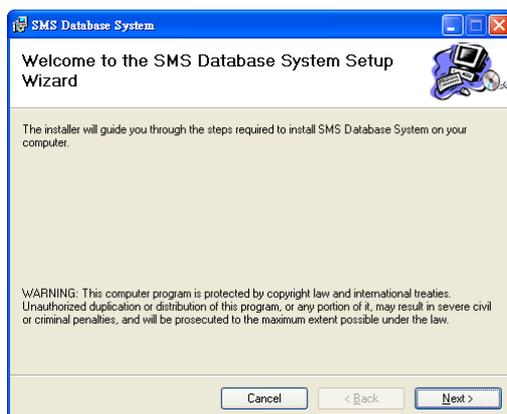
Before performing software installation, please configure GT-530/ GTM-201 hardware and set up the system (Figure above shows a possible system configuration. For more detail information, please refer to GT-530 User Manual.) Please be aware, The SMS Database System requires the .NET framework version 2.0 to be installed on the target computer. Please follow the link below to get the framework package directly from Microsoft, if required.

- ◆ Download Microsoft .Net Framework Version 2.0:
<http://www.microsoft.com/downloads/details.aspx?FamilyID=0856each-4362-4b0d-8edd-aab15c5e04f5&DisplayLang=en>
- ◆ Download Microsoft .Net Framework Version 3.5:
<http://www.microsoft.com/downloads/details.aspx?familyid=333325FD-AE52-4E35-B531-508D977D32A6&displaylang=en>

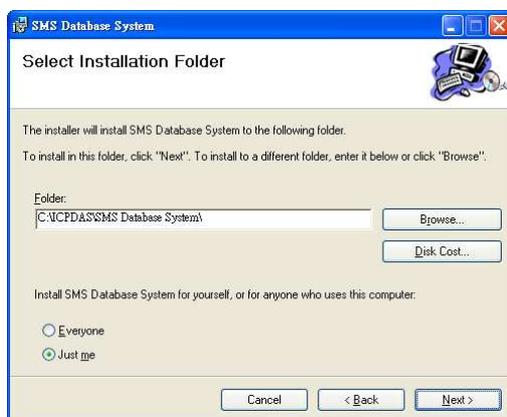
3 Software Installation

Please contact ICP DAS service to obtain the latest version of SMS Database

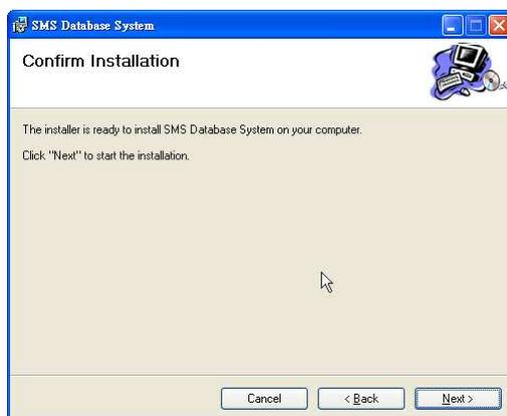
System setup file. Double click [SMS Database System Setup.msi]  to start installation, click [Next] to continue.



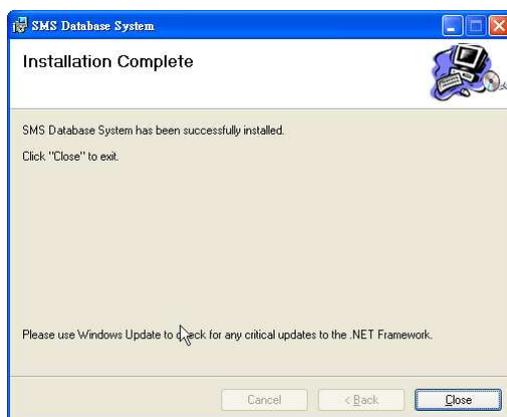
On [Select Installation Folder] page, input path or browse through file dialog box to select the destination folder, click [Next] to continue.



Click [Next] to start installation.



When the installation process is completed, click [Close] to finish installing program.



After the installation is completed, you will find SMS Database System Shortcut (icon ) in the program menu: [Start] → [All Programs] → [ICPDAS] → [SMS Database System]; click [SMS Database System] shortcut under the [SMS Database System] category to start the program.

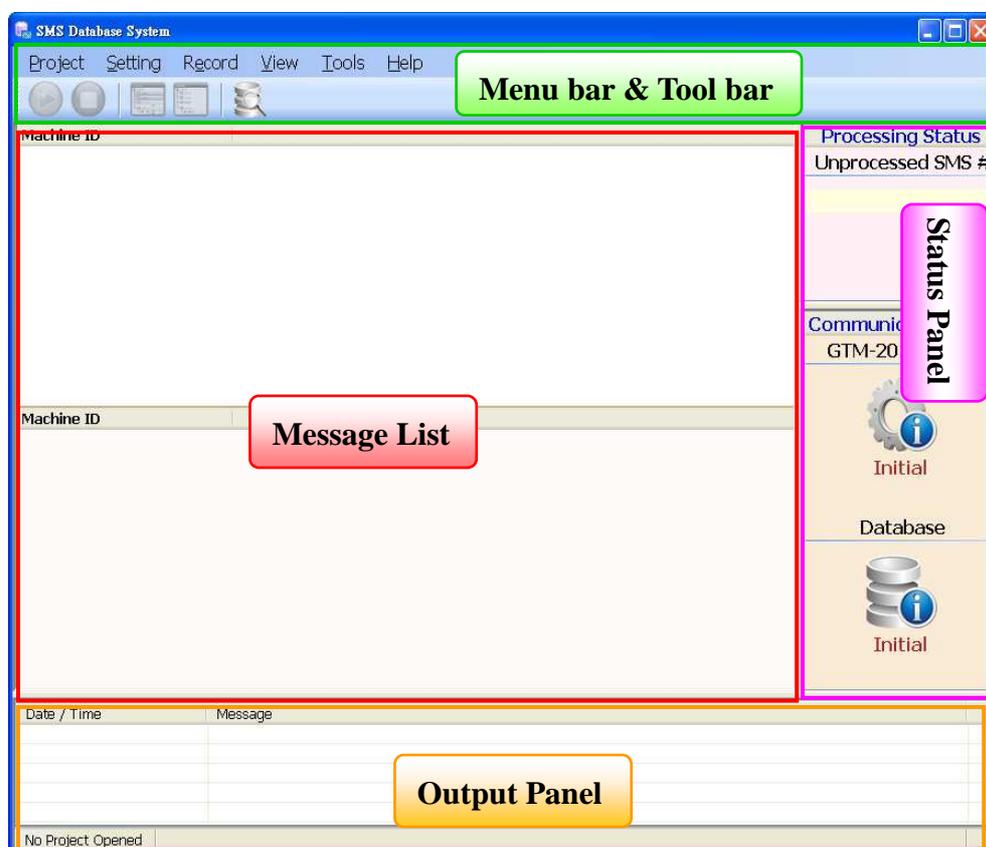


If the software isn't Lite version, in order to execute the software, it is required to plug Hardkey (provided by ICP DAS) into USB port.

4 User Interface Introduction

SMS Database System user interface window contains the following areas:

- [Menu Bar] and [Tool Bar]: contain menus and buttons for easy access to functions.
- [Message List]: displays list of received messages (include alarm messages and real-time messages periodically sent by remote units).
- [Status Panel]: shows messages processing status and connection status.
- [Output Panel]: Display information, warning, error messages when program execute.



5 System Operation Procedure

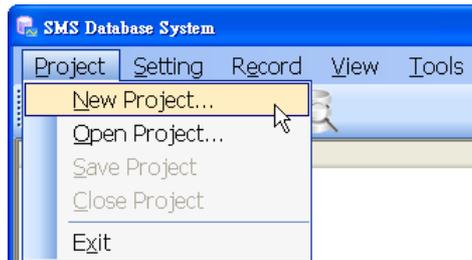
It's easy to build a ready-to-use application on SMS Database System. Follow the steps below to build an application:

- ◆ Create a New Project
- ◆ Com Port Setting
- ◆ Phone Number Setting
- ◆ Database Setting
- ◆ Save SMS Message to Database
- ◆ Display Historical Data

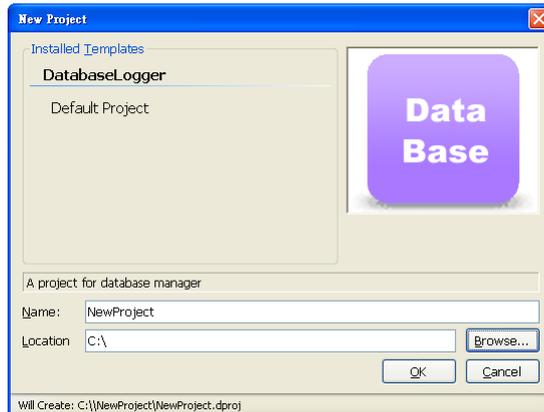
5.1 Create a New Project

Follow the steps below to create a new project:

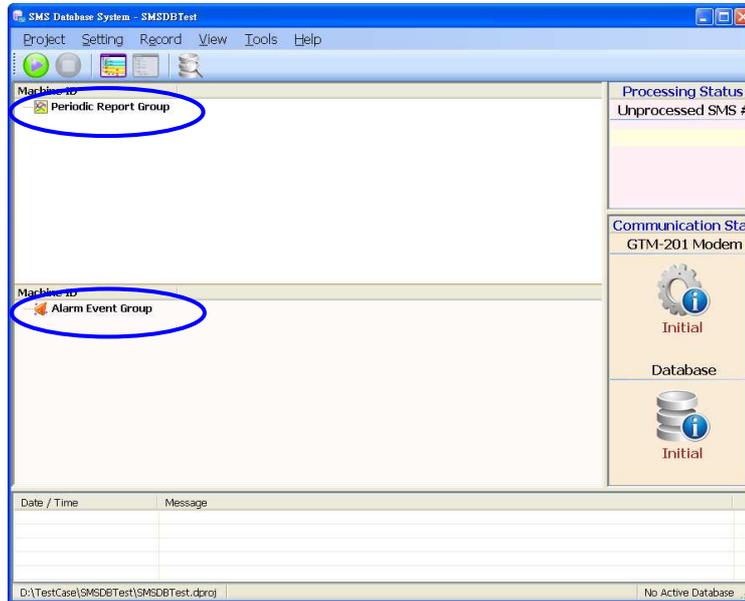
- i. Select [New Project] from the dropdown list of the [Project] menu, the [New Project] window will pop up.



- ii. Input project name, input path or browse through file dialog box to select the destination folder, click [OK] to create a new project.



After the new project being created, you will find two notes [Periodic Report Group] and [Alarm Event Group] appear in [Message List].



The received SMS messages will be listed under the group it belongs to. The description of the two group are as below :

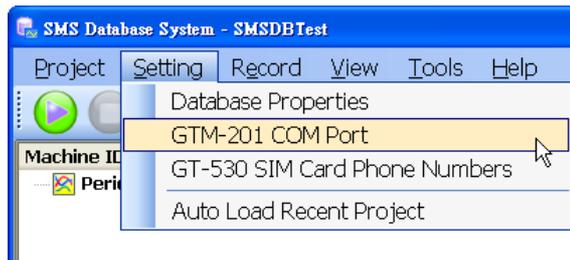
- ◆ **Periodic Report Group** displays recent received periodic SMS message.
- ◆ **Alarm Event Group** displays recent received alarm event SMS messages.

5.2 Com Port Setting

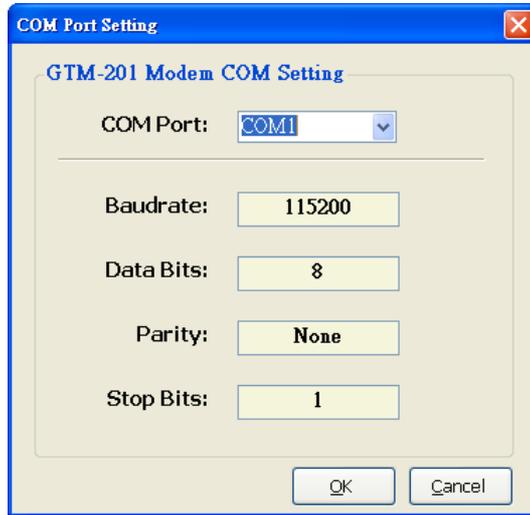
The database receives SMS messages transmitted by GT-530 via GTM-201. Therefore, to communicate with GTM-201, it requires setting up the COM Port parameter for the target computer.

Follow the steps below to set up the COM Port parameter for the target computer:

- i. Select [GTM-201 COM Port] from the dropdown list of the [Setting] menu, the [COM Port Setting] window will pop up.



- ii. Select the COM Port to connect to GTM-201 from the dropdown list, click [OK] to finish COM Port setting. To select appropriate COM Port to connect to GTM-201, please refer to GTM-201 manual.

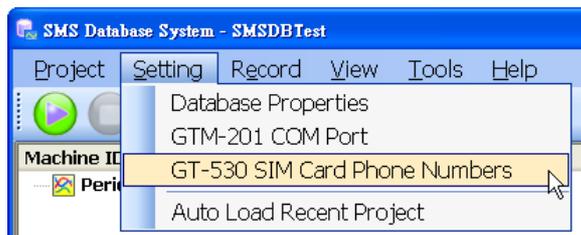


5.3 Phone Number Setting

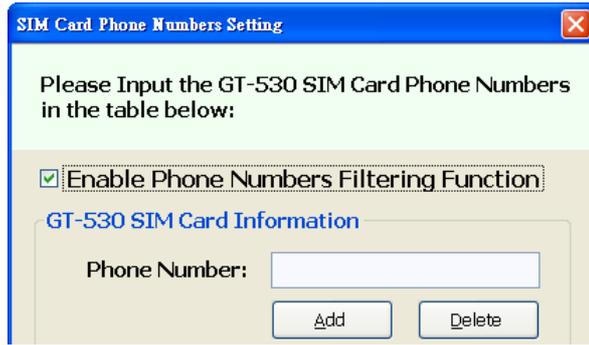
The Phone Number Setting function allows you to receive SMS messages sent by authorized senders only; the filter function will prevent the database from receiving and storing messages from unknown senders. (For Lite version, the filter list function is limited and allows to setting up 3 numbers at most.)

Follow the steps below to set up filter list:

- i. Select [GT-530 SIM Card Phone Numbers] from the dropdown list of the [Setting] menu, the [SIM Card Phone Numbers Setting] window will pop up.



- ii. On SIM Card Phone Numbers Setting Pages, Check the [Enable Phone Numbers Filtering Function] check box to enable filter function.



- iii. Input the allowed phone number in text box, Click [Add] button.



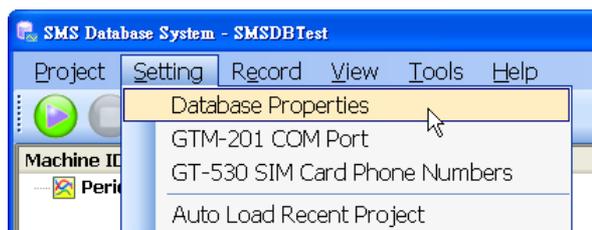
- iv. Click button to save filter list.
- v. Please note: To avoid possible error, make sure the format of the phone numbers you input are exactly the same as the format of the phone numbers the sender source is going to send out. For example, if the sender source will send out the numbers in the format that will include area code or country code, make sure you add these codes to your phone numbers on the list. These codes will not be added to the numbers automatically.

5.4 Database Setting

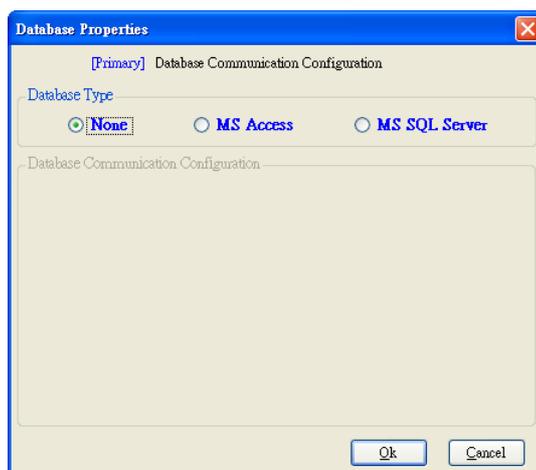
The GT-530 SMS messages received by GTM-201 will be stored in the database. Therefore, it requires setting up the database before starting to transmit messages. Currently two types of database is supported: MS SQL Server 7.0 (or above) and MS Access 2003. (For Lite version, the type is limited and allows to supporting MS Access2003.)

Follow the steps below to set up database:

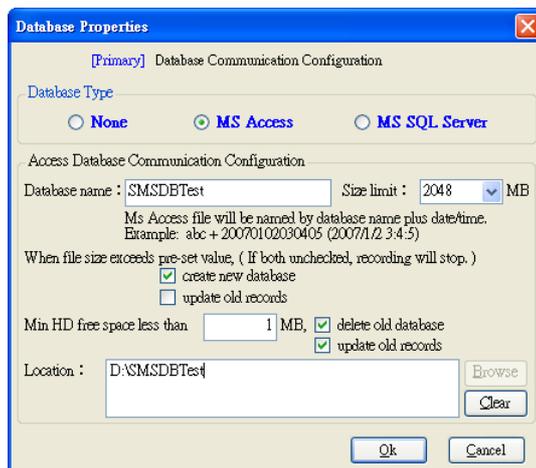
- i. Select [Database Properties] from the dropdown list of the [Setting] menu, the [Database Properties] window will pop up.



- ii. On [Database Properties] page, select the appropriate database type. If you select [None], the received SMS messages will not be stored in database, but still will appear on the [Message List].



- iii. If you select [MS Access] as your database, complete and verify the following settings:



- Database name: Type a name for database. Current date (year, month, day) and time (hour, minute, second) will be automatically pasted to the name you type as the final database name. For example, you type “abc” as database name, the database creation date and time is “2007/01/02 03:04:05 ”(the 24 hours time system), the full database file name saved in system will be:

abc20070102030405.mdb

- Size limit: Specify maximum MS Access database file size allowed.
- Choose one of the following policies to apply when the database file reaches its limit size:

[Create New Database]: The system will automatically generate a new database (in the name of original input name pasted current time tag) to store new incoming SMS messages.

[Update Old Records]: Once the file size reaches the specified limit, the oldest data will be deleted to release space for storing latest received SMS messages.

Default selected option is [Create New Database]. Please note: if you uncheck default option without selecting another option, that is, no policy is selected; the incoming new SMS messages will not be stored in the database.

- Specify minimum “free disk space” allowed. You can also specify which policy to apply when reaches minimum “free disk space”.

Two policies are available:

[Delete Old Database]: if [Delete Old Database] is checked, the oldest database file will be deleted.

[Update Old Records]: if [Update Old Records] is checked, the oldest data will be deleted to release space for storing latest received SMS messages in current database.

If both policies are selected, [Delete Old Database] has higher priority and will be executed first.

- Location: specify database storage location.

- iv. If you select [MS SQL Server] as your database server, complete and verify the following settings:



- Database name: type in the name of the remote database to specify which database you are going to store SMS messages. Please note: the remote database you select has to be an already exist file on the remote server.
 - IP Address: input the IP Address of the remote database server.
 - User name: input the login name to login remote database server.
 - Password: input the password to login remote database server.
 - Backup database: specify backup database for storing SMS messages when experiencing unexpected disconnection and lost connection to remote database server. Input backup database name, IP Address, login name, password of the backup database.
- v. Click [Ok] to finish database setting.

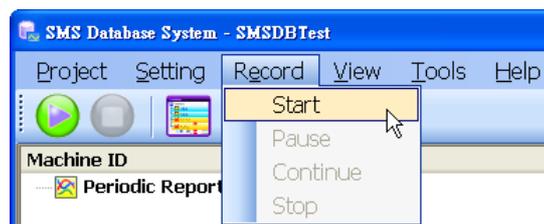
5.5 Save SMS Messages to Database

After finishing database settings, now you can connect to database and start to save SMS messages received in the database.

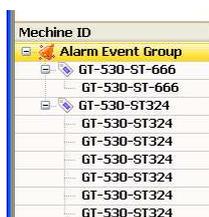
Follow the steps below to save SMS messages to database:

- i. Select [Start] from the dropdown list of the [Record] menu, or click

 button on [Tool Bar].



- ii. If receives SMS messages, the Machine ID of the received messages will be listed on [Message List] panel under the category it belongs to.



- iii. Select [View]→[Real-time Monitor View]→[Open Data Monitor] or click the  button on [Tool Bar], the detail information of each SMS message received will be listed on the [Message List] panel.



Mechine ID	Alarm Message	Report Date Time
Alarm Event Group		
GT-530-ST-666	D19 Triggered!!	2009/10/09 09:12:02
GT-530-ST-666	D16 Triggered!!	2009/10/09 09:11:55
GT-530-ST324	D18 Triggered!!	2009/10/09 09:07:33
GT-530-ST324	D16 Triggered!!	2009/10/09 09:09:36
GT-530-ST324	D17 Triggered!!	2009/10/08 18:39:36
GT-530-ST324	D19 Triggered!!	2009/10/08 18:39:29
GT-530-ST324	D18 Triggered!!	2009/10/08 18:39:23
GT-530-ST324	D19 Triggered!!	2009/10/08 18:36:24
GT-530-ST324	D16 Triggered!!	2009/10/08 18:36:11

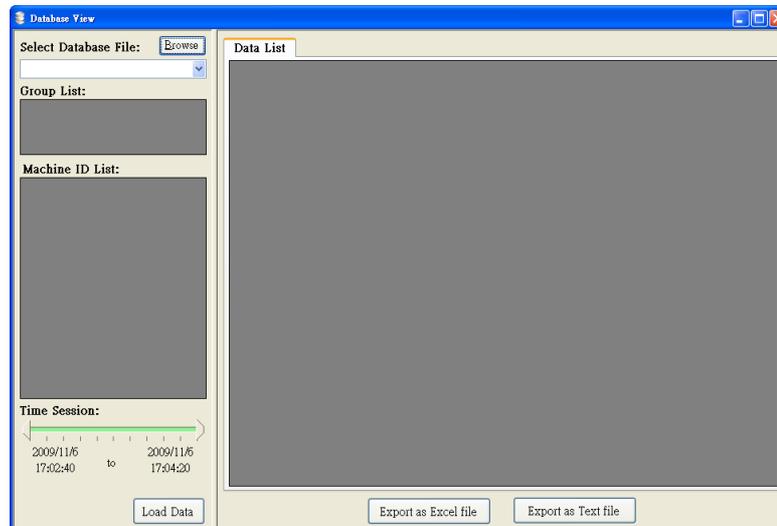
- iv. To stop saving SMS messages to the database, select [Stop] from the dropdown list of the [Record] menu, or click  button on [Tool Bar].

5.6 Display historical data

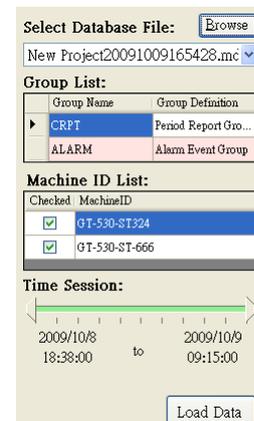
Historical data can be retrieved from the database. Specify the database source and set conditions which is used to select the desired SMS messages, the message list of your choosing will be display on the [Data List] panel (apply to MS Access database only).

Follow the steps below to display historical data:

- i. If its recording status is not set to “Stop”, please select [Stop] from the dropdown list of the [Record] menu, or click  button on [Tool Bar] to stop SMS messages saving.
- ii. Select [View Database] from the dropdown list of the [View] menu or click  button on [Tool Bar] to open the [Database View] window. Later you can specify database source and select messages to display from the left side panel.

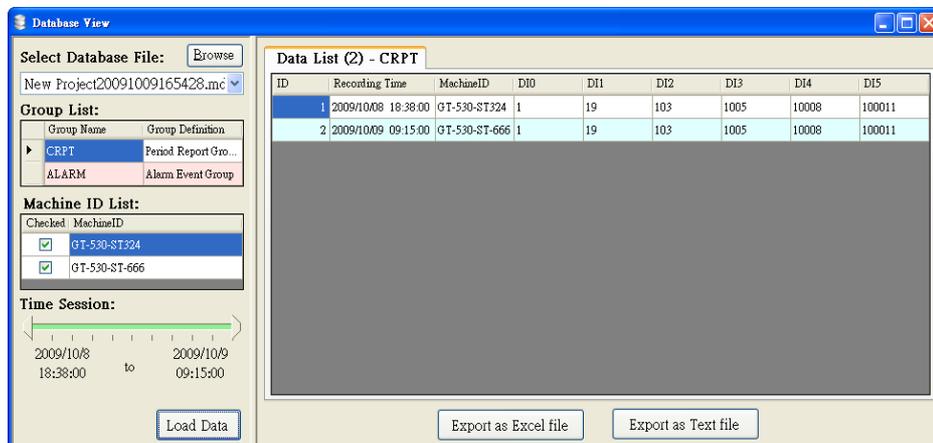


- iii. Click [Browse] button, specify the database source (MS Access database only) and open the database file. Message Group list of the database will be displayed (CRPT (Counter Report) group or ALARM group) in the left side panel.
- iv. Click on the group of your choosing, the



Machine ID of all messages under this group and the duration of messages received time will be displayed.

- v. Specify the time session of you choosing, click [Load Data] button to load historical SMS message data.



- vi. Click on the [Export...] button, the historical data of your choosing can be exported into Excel or text format file.