CSPage USER MANUAL

Introduction

CSpage is an alarm management software product, which can be used on Johnson Controls M3/M5 workstations, VE800 or other OPC AE server. It can provide BAS with direct and comprehensive alarm paging and notification capabilities. CSpage also has a comprehensive roster shift feature.

Overview

CSpage includes 3 function modules:

1. Alarm capturing module: It is OPC AE client software which can get alarm/event from BAS OPC AE server. It can also support Metasys PMI/Metahost, and ADS/ADX, NAE55 serial printer port as alarm input.
2. Paging objects processing module: It's a database process, which can assign correct roster/team/user information to the alarm, and send the alarm object to the modem buffer at designed time.
3. Modem module: It's a process to send the alarm out by SMS (Short Message System). It includes SMS buffer and modem implementation software.

❖ An alarm from OPC AE server can be captured by the CSpage and send to a Roster (or multi Rosters in special application)

❖ The Roster will select an active team from the roster schedule by Weekday/Holiday/Alternative day, and assigns the active team to this alarm. An object then will be created with the information (alarm name, active team, delay interval, retry times and so on) and be saved into a WaitQ (as WaitQ object).

❖ In CSpage, there is a thread to check the WaitQ periodically to see whether it is time for an alarm to be paged to a user. If yes, the alarm message and contact number will be taken out from WaitQ and saved into a SMS buffer in the form of paging object. If the GSM modem is connected, the paging object will be taken out quickly and sent to the destination. If the modem doesn't work, the paging objects will keep being stored until the GSM modem is recovered (The buffer size is 1000). The operator can clean this buffer if he doesn't want to send out the huge number of SMS accumulated during the modem failure.

❖ The paging time is decided as follows: Each alarm is assigned with an active team, and one team is divided into 2 groups of people: Normal and Manager.

- The alarm will be sent to the normal group user first. If the user SMS back the some message, CSpage will consider it as acknowledge and stop paging to the next person (the software can also be configured in other way, to page the next person even the alarm is acknowledged, or even cancel the acknowledgement feature)
- If there is no acknowledgement from user, the alarm will be re-sent until the predefined retry times are finished. The interval can be predefined (Normal Delay, typically 1 minutes)
- Then the alarm will be sent to next user and go on until all the normal users are paged.

- The system will wait for a predefined time (Group Delay, typically 15 minutes), and then start to page the alarm to Manager Group.
- The paging process is the same as the Normal group except with different predefined interval (Manager Delay, typically 10 minutes)
- So that in a typical application, if there is no one to acknowledge the alarm. All of the managers will be informed.

❖ Every user can be defined with many on-leave periods. During an on-leave period, the user will not be paged.

❖ All of the tables, include Alarm, Roster, Team, Team schedule, User, User on-leave ... can be defined to unlimited records (only limited by the PC resource), and provide operators with great flexibility.

❖ The CSpage has 2 level of login password. It will restrict the access right of an operator to different parts of CSpage. “Normal” level is for database modification, whereas “Manager” level is for parameter setting and testing.

❖ The CSpage include 2 log files:

- One for paging: It records all of the paging process and acknowledge situation, which can be used for facility manger to check whether the service is efficient.
- One for event: It records the entire important event in CSpage, which is for BAS engineer to do troubleshooting. It can even monitor who has changed the database, modified the global setting or closed the software.

❖ It has license control feature. Without software license enable, CSpage will auto-close in one hour. This makes it difficult be used in illegal commercial case, but not restricts from training, testing and commissioning.

❖ It has manually alarm acknowledging/purging features from Acknowledge interface.

❖ It has auto-purge feature to purge the alarm. Unacknowledged alarm will be erased from WaitQ after the pre-defined time.

Technical Specification

Alarm Source Type:

- ❖ OPC AE Server: For M3, M5, VE800 or any third party HMI which can support OPC AE Server.
- ❖ Metahost: For Metasys PMI
- ❖ RS232: For ADS/ADX alarm printer, and NAE55 DDA (alarm printer)

Operation System:

- ❖ Microsoft® Windows ® 2000 Service Pack 4
- ❖ Microsoft Windows XP ®
- ❖ Microsoft Windows NT® Version 4.0 with Service Pack 6 or later
- ❖ Microsoft Windows 98 Second Edition

Recommended PC Platform:

- ❖ Pentium® III class, 1 GHz, 512MB RAM

Software Requirement:

- ❖ M5 workstation, or
- ❖ M3 workstation, or
- ❖ Other OPC AE (Ole for Process Controls, Alarms and Events) 1.1 server

Required Third Party Components:

- GSM (Global System for Mobile Communications) modems which support AT commands GSM 07.05 for SMS. E.g.:
  - Siemens TC35 GSM modem or Siemens MC35i modem.

Installation Procedures

Installation procedures include software installation and hardware installation.

Installing Software

The CSpage is programmed by .net 2003. It needs to install dotNetFramework1.1 and Internet Explorer 6.0 SP1 before install CSpage.

- Install IE6 SP1: If your OS does not have IE6 SP1, install IE6 SP1 from \ IE60SP1
- Install dotNetFramework1.1: Insert installation CD in CD driver, and click \dotNetFramework1.1\ dotnetfx.exe. The installation may need some other system upgrading. Follow the instruction to install necessary upgrading, and run the installation again.
- Install CSpage: Click \CSpage\ CSpage.msi, and follow the instructions. Accept all of the default except select "Install CSpage for **every one**". The operator can also click Setup.Exe if your OS doesn't support .msi file (windows installation package file)

Check: After proper installation, you can find the CSpage.exe software at Start→Programs → CSpage

Installing GSM modem

Connect the cable according to the modem manual.

- Connect RS232 cable to the PC's COM port.
- Connect antenna to the modem
- Insert the SIM card into the modem. Make sure to take out the SIM card's password if any.
- There is no need to install any modem driver on the PC

Configuration Procedures

CSpage Startup and Authorization

Run the CSpage by clicking the CSpage.exe at Start→Programs→CSpage→CSpage.exe.

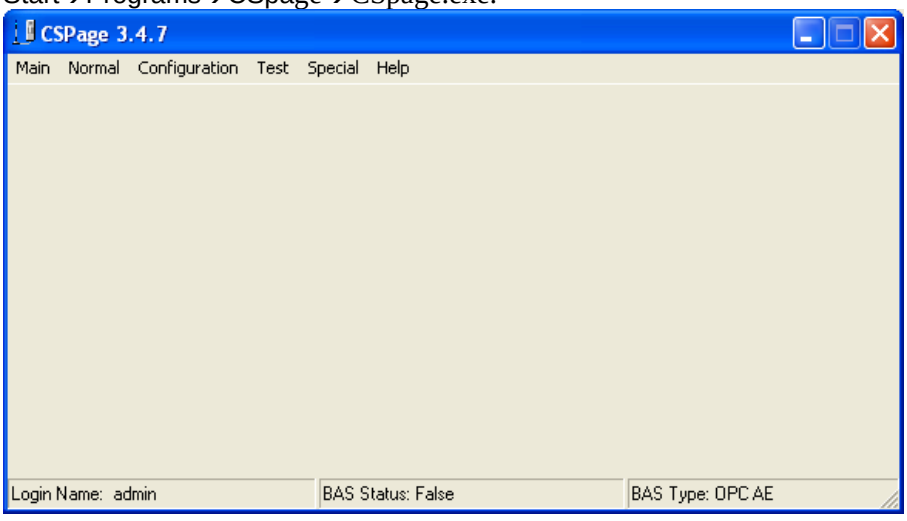
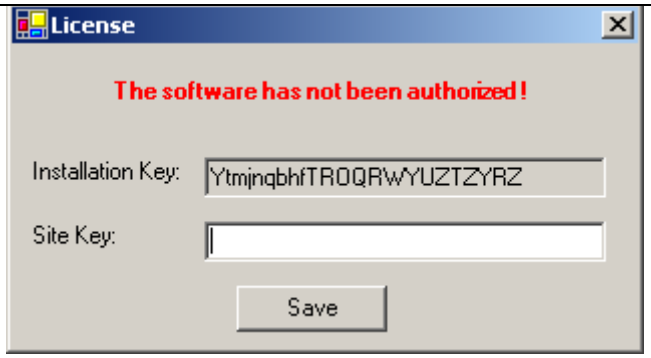
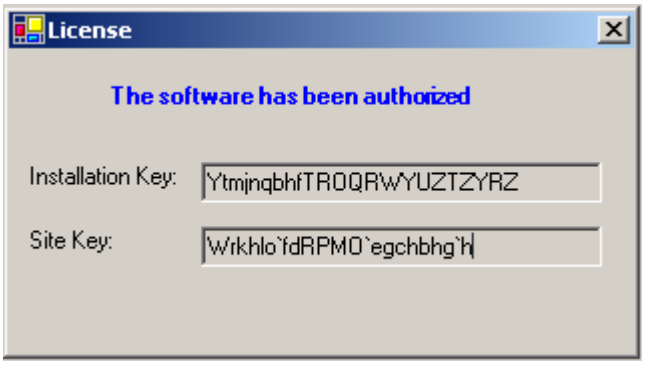


Figure 1: CSpage Main User Interface

Table 1: Operation of main interface

Function	Implementation
Start	Run the CSpage by clicking the CSpage.exe, or from Start→Programs→CSpage→CSpage.exe.
Login	From menu Main→Login, then key in login name and password. The default login name is “admin” and password is “1234”. The login password includes 2 levels: Normal and Admin. The Admin level can access all of the functions under menu “Normal” and “Admin”, whereas Normal level can only access the functions under menu “Normal”.
Authorization	 From menu Main→Authorization, then key in the site key. The site key can get from CSpage support team by submitting the installation key copied from this interface. (tip: site key is not easy to key in manually, It is recommended to use soft copy, or get by SMS from the GSM modem as in Figure 16)  If the operator doesn’t get site key, the CSpage also allows the operator to implement all of the configuration, testing and other functions, but the system will automatically close itself in 60 minutes. The operator needs to re-start the software by clicking the CSpage.exe again.
Logout	From menu Main→Logout. It is recommended that the operator should logout after finishing the configuration, to prevent unauthorized operation by others.
Close	From menu Main→Exit and key in login name and password, and the software will be closed.

Setting Global Parameters

To setup global parameters, the operator needs to login the system by admin level password (default is “Admin”, “1234”), and then click menu Admin→Global Cfg

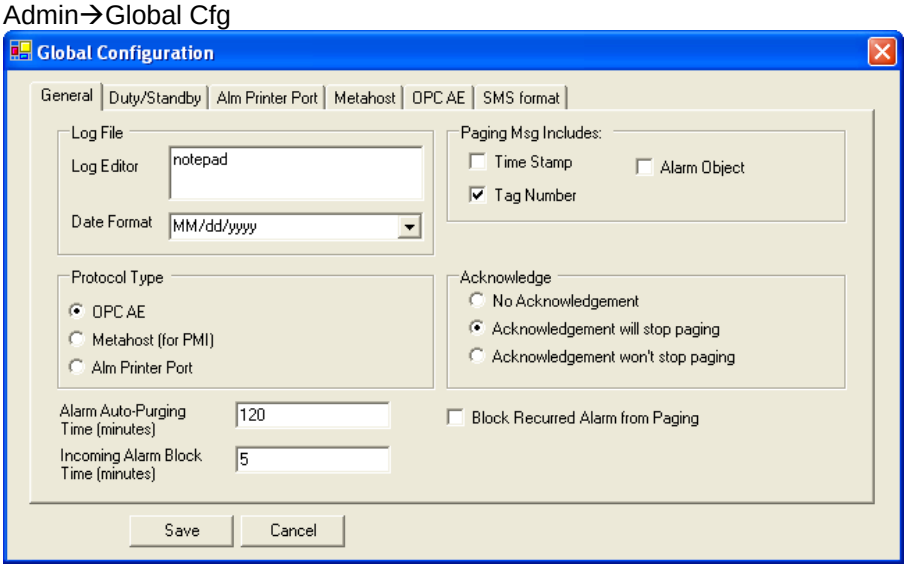


Figure 2: Global Parameter (General) Configuration

Table 2: Global Parameter (General) Field Description

Field/Button	Description
Log Editor	The text editor (notepad or WordPad) used for displaying log files. Using WordPad is recommended since it can store more content.
Date Format	The date format used in CSpage. This data format will be used in log file and other situation.
Protocol Type	The protocol used by CSpage to get incoming alarm.
Alarm Auto-Purging Time (minutes)	The time (in minutes) of CSpage will wait before it purges the alarms object stored in WaitQ.
Incoming Alarm Block time (minutes)	The time interval (in minutes) of blocking incoming alarm after the user clicks menu special→Block Incoming Alarm.
Time Stamp	Whether the alarm message received by user will include alarm occur time.
Alarm Object	Whether the alarm message received by user will include alarm object name.
Tag Number	Whether the alarm message received by user will include alarm tag number. Note: Only “No Acknowledgement” scenario can disable sending tag number. The other 2 “Acknowledgement” scenarios will omit this setting and send tag number in SMS.
No acknowledgement	Disable the acknowledgement feature. Once an alarm occurs, it will be paged to all of the users in the active team.

Acknowledgement will stop paging	Once the alarm is acknowledged, it will stop paging to other users in the same team. Acknowledgement is done by sending back the SMS with the received content. CSpage will check the tag number to deduce which alarm is acknowledged.
Acknowledgement won't stop paging	Once the alarm is acknowledged, it will continue paging other users in the same team. But the acknowledgement information will be recorded in log file.
Block Recurred Alarms from Paging	If it's checked, CSpage will treat a BAS point which sends alarms many times in certain period (2 hours by default) as one alarm tag. Only occurring time will be changed according to the latest alarm.
Save	Save the setting to registry. If you have changed protocol type and or the OPC AE name, you need to re-boot the software.
Cancel	Cancel the setting.

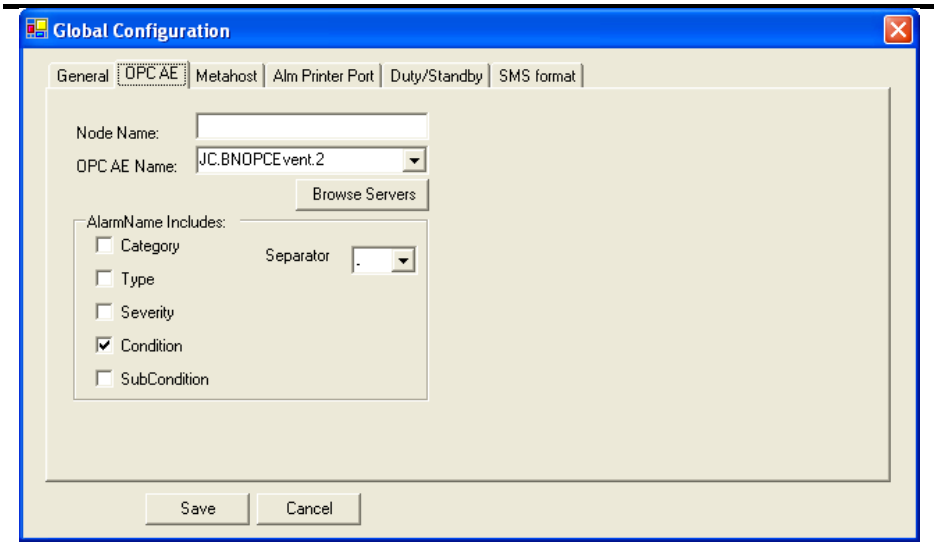


Figure 4: Global Parameter (OPC AE) Configuration

If the alarm source is OPC AE server, these parameters on "Global Configuration (OPC AE)" need to be configured. Please refer to "CSpage for OPC AE" for details.

Table 4: Global Parameter (OPC AE) Field Description

Field/Button	Description
Node Name	The computer name or IP address on which OPC server is located. This is for DCOM. Keep it blank if the OPC server is on the same PC as CSpage.
OPC AE Name	The name of OPC Alarms and Events server which will send alarm to CSpage. It is recommended to use "Browse Server" button to get the exact name.
Browse Server	Browse the OPC AE servers available. The operator can select one from the combo box. The operator can also key in the OPC AE server name.
Category	If ticked, it will be added as part of Alarm name
Type	If ticked, it will be added as part of Alarm name
Severity	If ticked, it will be added as part of Alarm name
Condition	If ticked, it will be added as part of Alarm name
SubCondition	If ticked, it will be added as part of Alarm name
Separator	The separator in Alarm name between fields.
Save	Save the setting to registry.
Cancel	Cancel the setting.

Notes: In normal application, user needs only tick "Condition", and then the Alarm name format is Source.Condition. In situation that "Condition" is not enough to differentiate the alarm. "SubCondition" can be ticked. So that the alarm name format is Source.Condition.SubCondition. And so on so forth. When use CSpage in an unfamiliar OPC AE, it is recommended to use "OPC Test" interface to test before to make decision on which fields should be used in Alarm Name.

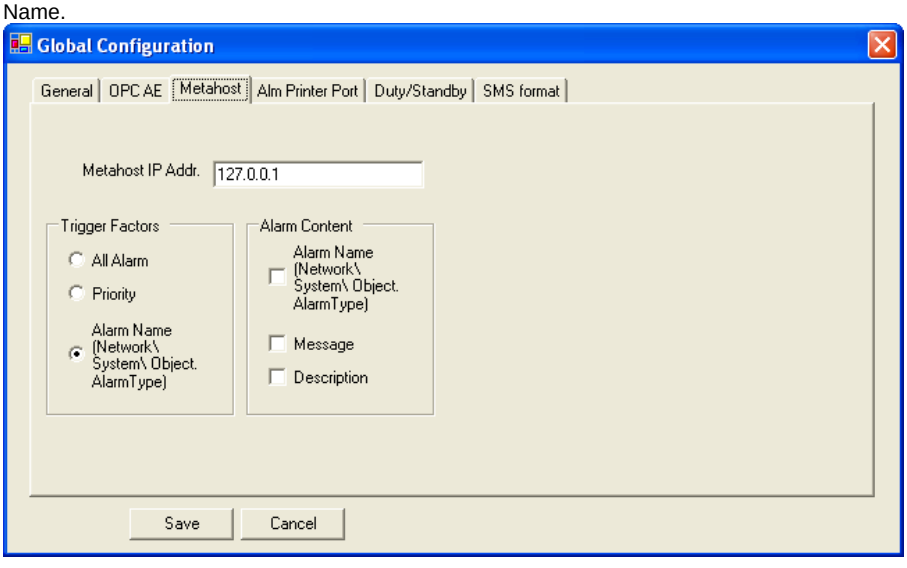


Figure 5: Global Parameter (Metahost) Configuration

If the alarm source is Metahost, these parameters on "Global Configuration (Metahost)" need to be configured. Please refer to "CSpage for Metahost" for details.

Table 5: Global Parameter (Metahost) Field Description

Field/Button	Description
Metahost IP Addr.	The IP address of Metahost (in M5 workstation)
Trigger Factor	Please refer to manual “CSpage for Metahost”
Alarm Content	Please refer to manual “CSpage for Metahost”
Save	Save the setting to registry.
Cancel	Cancel the setting.

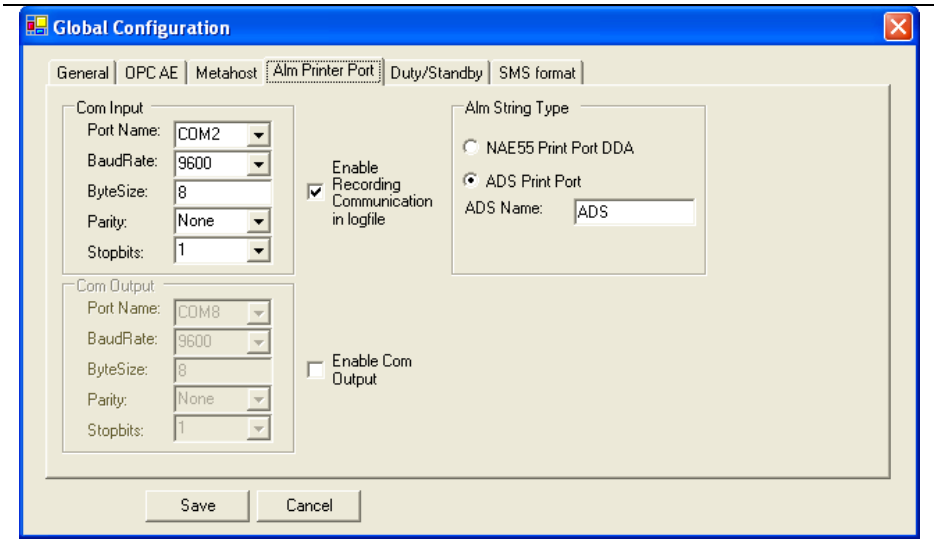


Figure 6: Global Parameter (Alm Printer Port) Configuration

If the alarm source is ADS/ADX alarm printer, NAE55 DDA alarm printer, , these parameters on “Global Configuration(Alm Printer Port)” need to be configured. Please refer to “CSpage for Alarm Printer Port” for details.

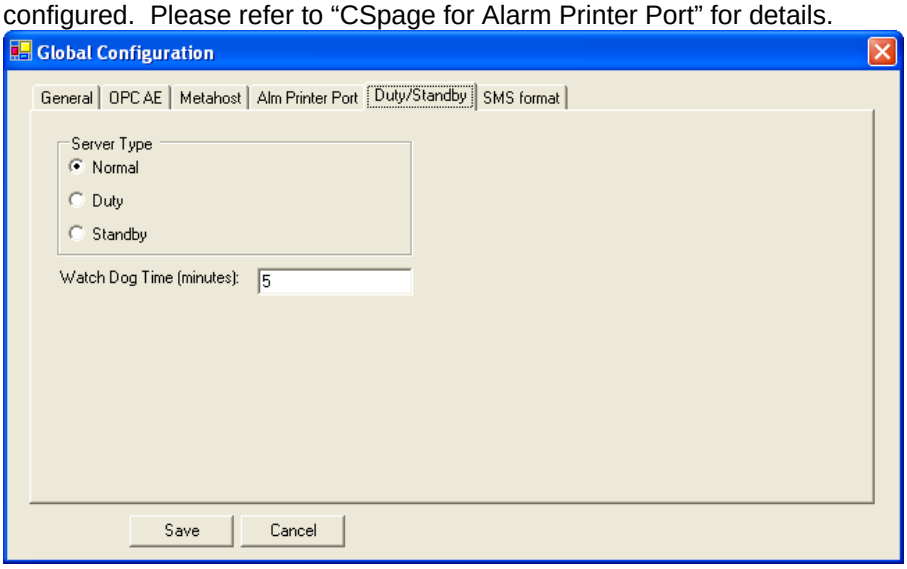


Figure 7: Global Parameter (Duty/Standby) Configuration

If the Duty/Standby feature is required, these parameters on “Global Configuration (Duty/Standby)” need to be configured. Please refer to “CSpage for Duty/Standby” for details.

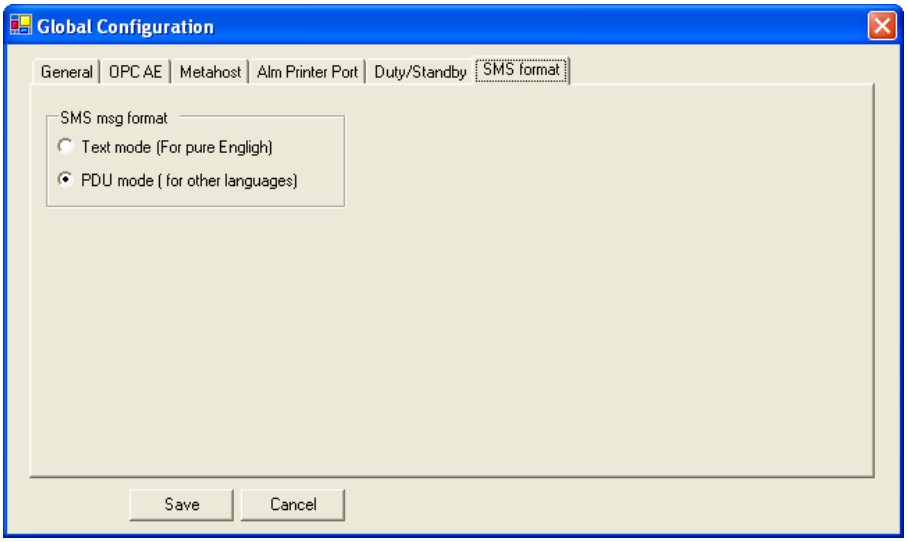


Figure 8: Global Parameter (SMS format) Configuration

CSpage can support other SMS format in other languages. "Text mode" is for pure English, and "PDU mode" is for Unicode.

Table 5: Global Parameter (SMS format) Field Description

Field/Button	Description
Text mode (For pure English)	For pure English
PDU mode (for other languages)	For Unicode support

Setting Modem Parameters

To setup modem parameters, the operator needs to login the system by admin level password, and then click menu Admin→ Modem Cfg.

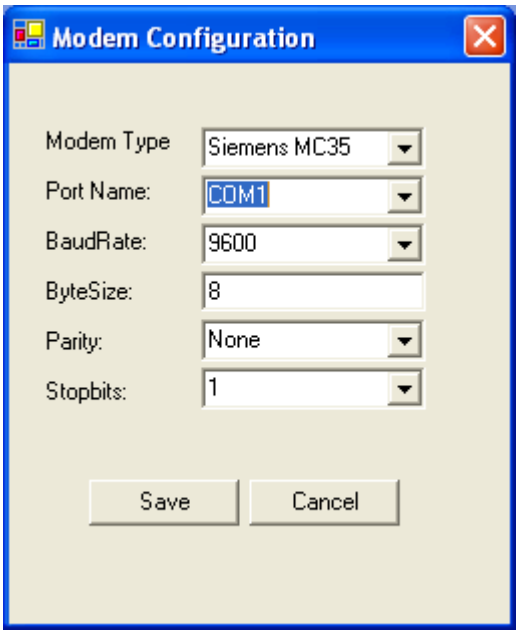


Figure 9: Modem Configuration

Table 6: Modem Configuration Field Description

Field/Button	Description
Modem Type	The type of the modem.
Port Name	Define which com port is used for modem.
Baud Rate	The baud rate used to communicate with modem.
Save	Save the setting to registry.
Cancel	Cancel the setting.

Setting Login Account

Login data table is the place to manage login names and passwords. To setup login data table, the operator needs to login the system by admin level password, and then click menu Admin→ Login Data.

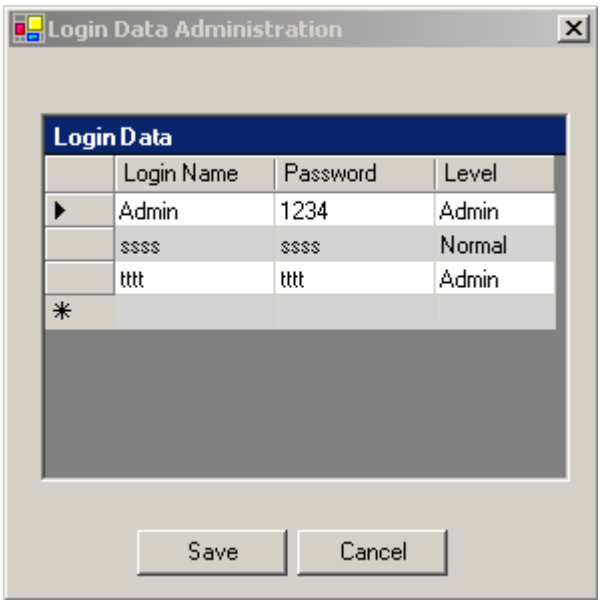


Figure 10: Login data Configuration

Table 7: Login Data Field Description

Field/Button	Description
Login Name	The login name used to access CSpage configuration and testing functionality.
Password	The password for the login name.
Level	Password level. Level “Normal” can access menu “Normal”; Level “Admin” can access menu “Normal” and “Admin”.
Save	Save the setting to registry.
Cancel	Cancel the setting.

* Delete record: Highlight the record and push “Del” button of keyboard

Set-up Database Procedures

Database set-up in CSpage is by 5 main interfaces (Alarm, Roster, Team, User and Holiday), and 3 sub interfaces (Roster Schedule, Team Detail, and User Leave). To configure database, the operator needs to login the system by “Normal” or ”Admin” level.

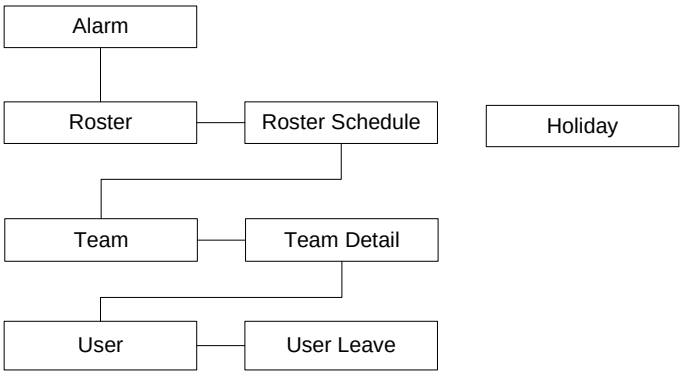


Figure 11: Database structure of CSpage

Alarm Table

Open Alarm database interface by clicking menu Normal → Alarm Alarm Database.

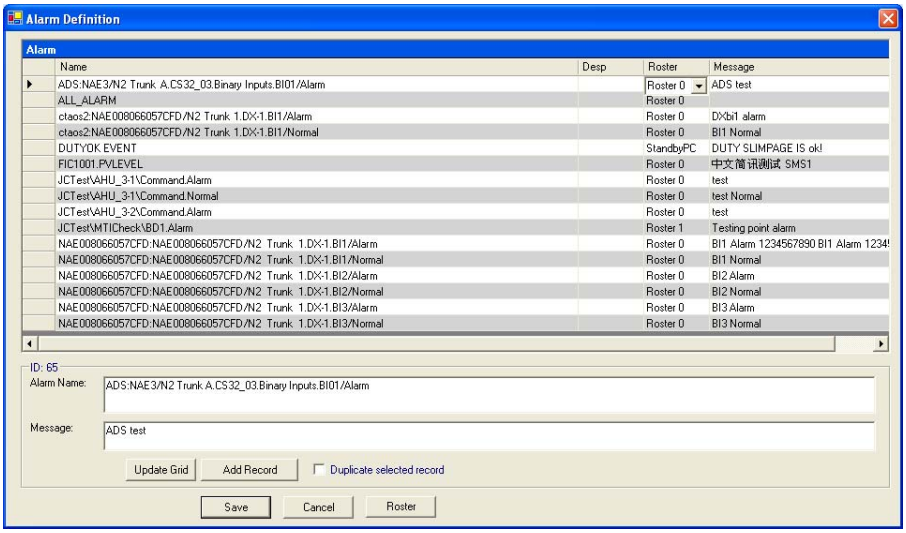


Figure 12: Alarm Table

Table 8: Alarm Table Field Description

Field/Button	Description
Data grid	
Name	Alarm name. The default format is: "Source". "Condition". E.g.: 1. The alarm's source name is "JC\Ahu_3-1\Trip", 2. The alarm's condition name is "Alarm", 3. Then "JC\Ahu_3-1\Trip.Alarm" is the alarm name for this field. The source and condition can be checked from "OPC test" interface from menu Admin→OPC test→All Event Display. One alarm can be defined multi times with different roster assigned in special application case (multi-roster application) Customized Alarm name format can be defined in "Global Cfg"→"OPC AE".
Desp	Alarm description.
Roster	The Roster assigned to the alarm. Once an alarm occurs, this is the start point to find an active user to page the alarm message.
Message	The message to be sent if the alarm occurs.
Group Box	
Alarm Name	Alarm name. (It is duplication from "Name" field of present record for easier input.)
Message	The message to be sent out if the alarm occurs. (It is a duplication from "Message" field of present record for easier input)
Update Grid	Update the present record with the information in group box.
Add Record	Add a new record in data grid.
Duplicate selected record	If ticked, the newly added record will duplicate the content of present record.
Frame	
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
Roster	Display Roster interface.

* Delete record: Highlight the record and push "Del" button of keyboard

Roster and Roster Schedule Table

Open Roster database interface by clicking menu Normal→Roster, or clicking button on Alarm table interface. Normal → Alarm→Roster.

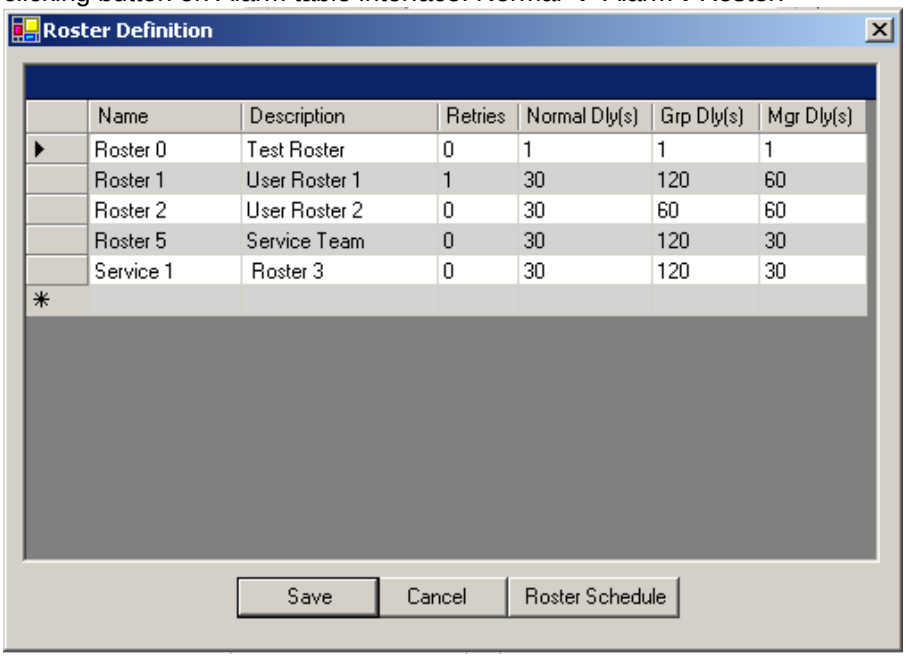


Figure 13: Roster Table

Table 9: Roster Table Field Description

Field/Button	Description
Name	Name of the roster.
Description	Description of the roster.
Retries	Paging retry times before paging next user.
Normal Dly(s)	Paging interval (in seconds) between users in normal group. This parameter also applies to retry paging in this group.
Grp Dly(s)	Paging interval (in seconds) between normal group and manager group.
Mgr Dly(s)	Paging interval (in seconds) between users in manager group. This parameter also applies to retry paging in this group.
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
Roster Schedule	Display Roster Schedule interface of present record.

* Delete record: Highlight the record and push “Del” button of keyboard

Open Roster Schedule database interface by clicking button on Roster configuration interface: Normal→Roster→ Roster Schedule

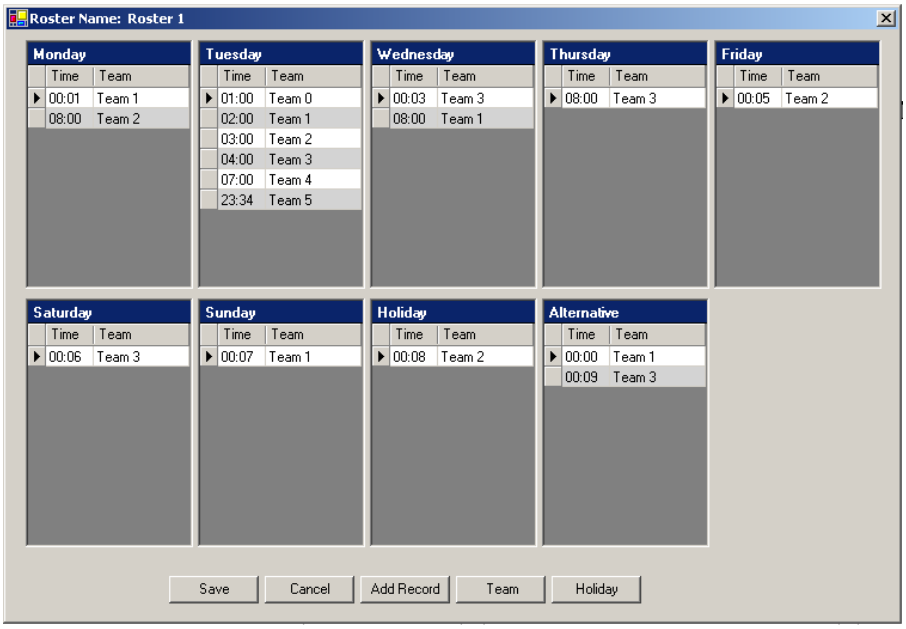


Figure 14: Roster Schedule Table

Table 10: Roster Schedule Table Field Description

Field/Button	Description
Time	Active time. After this time, the active team will be used for paging until the next active team definition. If there is no team is defined in the particular day, the active team will be the last active team of the day before and so on.
Team	Active team. At the defined day/time, a roster will use the active team to send alarm. If a date is defined as holiday/alternative day, at that particular day, the roster will chose active teams from holiday/alternative table instead of week schedule table.
Save	Save modification to database, and refresh the interface.
Cancel	Cancel modification.
Add Record	Add a new record into data grid.
Team	Display team interface.
Holiday	Display holiday interface.

* Delete record: Highlight the record and push “Del” button of keyboard

Team and Team Member Table

Open Team database interface by clicking menu Normal→Team, or clicking button on Roster Schedule table interface. Normal→Roster→Roster Schedule→Team

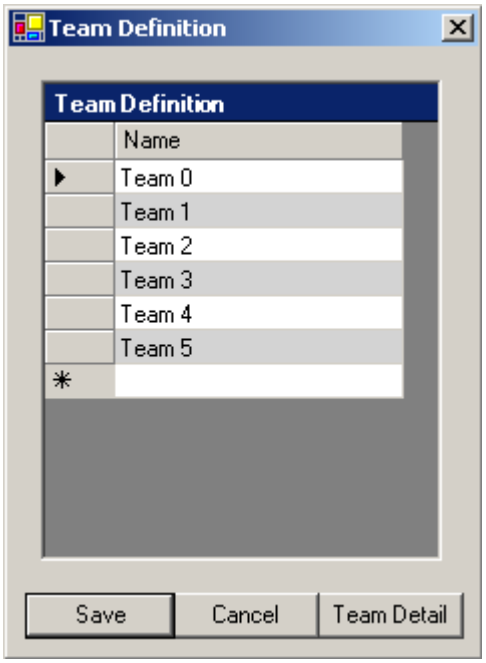


Figure 15: Team Table

Table 11: Team Table Field Description

Field/Button	Description
Name	Team name.
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
Team Detail	Display Team Member interface for present record

* Delete record: Highlight the record and push “Del” button of keyboard

Open Team Member database interface by clicking button on Team configuration interface: Normal→Team→ Team Detail.

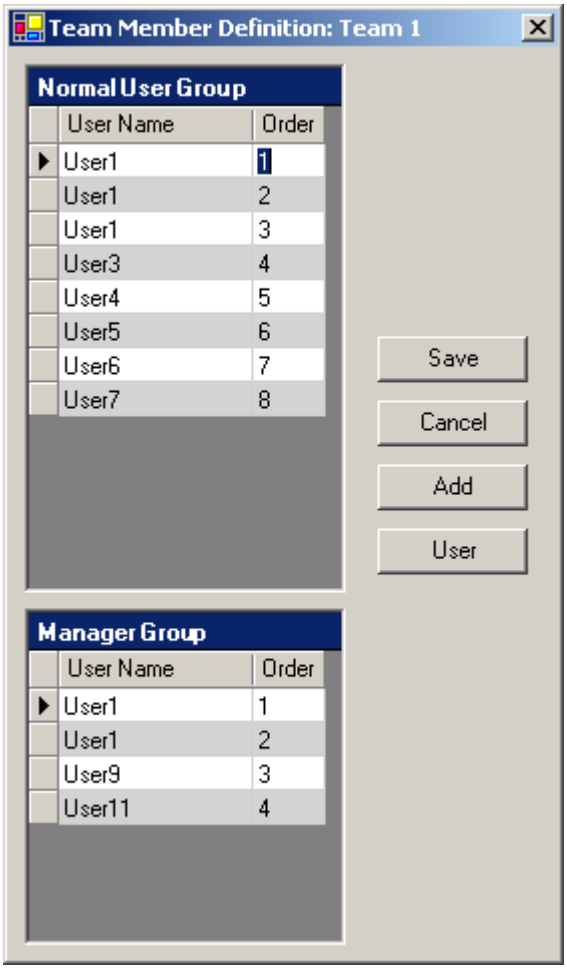


Figure 16: Team Member Table

Table 12: Team Member Table Field Description

Field/Button	Description
Normal User Group	
User Name	Name of the team member, in normal group.
Order	Paging sequence order.
Manager Group	
User Name	Name of the team member, in manager group.
Order	Paging sequence order.
Button	
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
Add	Add a new record.
User	Display the User table interface for present record.

* Delete record: Highlight the record and push “Del” button of keyboard

User and User Leave Table

Open User table interface by clicking menu Normal→User, or clicking button on Team Member table interface: Normal→Team→Team Detail →User.

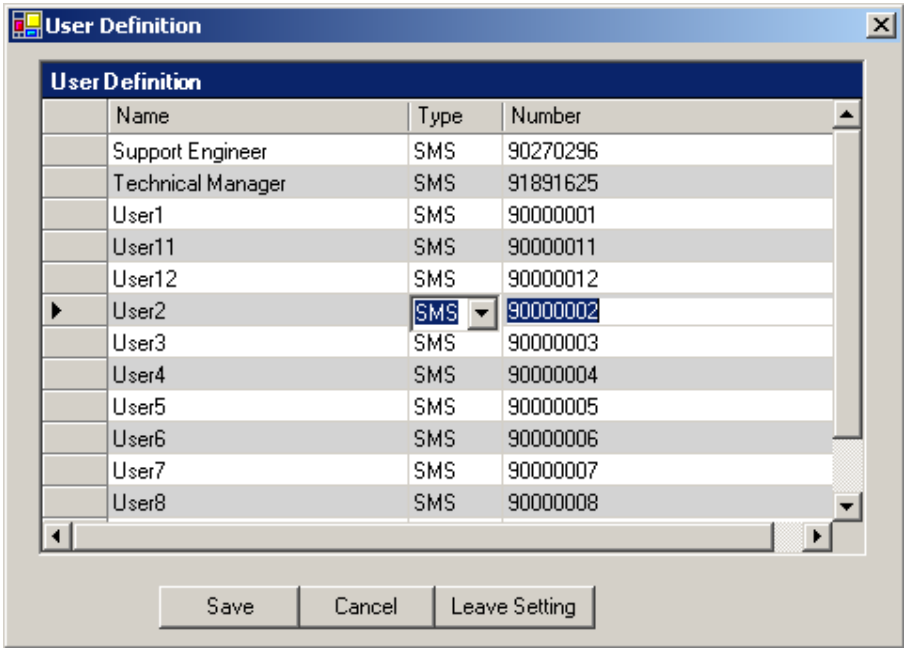


Figure 17: User Table

Table 13: User Table Field Description

Field/Button	Description
Data grid	
Name	User name.
Type	Media type.
	SMS: Short Message System
Number	Hand phone number.
Button	
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
Leave Setting	Display the User On-Leave interface for present record.

* Delete record: Highlight the record and push “Del” button of keyboard

Open User Leave database interface by clicking button on User configuration interface: Normal→User→ Leave Setting.

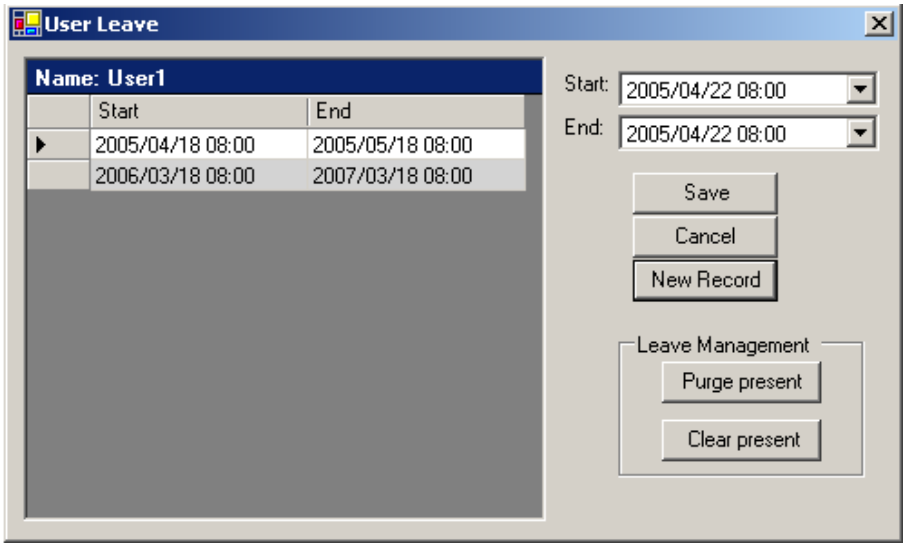


Figure 18: User On-Leave Table

Table 14: User On-Leave Table Field Description

Field/Button	Description
Data grid	
Start	Leave start date/time.
End	Leave end date/time.
Interface	
Start	Select date/time of "leave start" for a new record. (datetimepicker control)
End	Select data/time of "leave end" for a new record. (datetimepicker control)
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.
New Record	Add a new record to data grid. The start/end date/time is according to the present value of start/end datetimepicker controls.
Purge Present	Purge the present user's leave. That is to delete all of the leave records with end data/time earlier than present time.
Clear Present	Delete the present user's leave. That is to delete all of the leave records.

* Delete record: Highlight the record and push "Del" button of keyboard

Holiday Table

Open Holiday database interface by menu: Normal→Holiday

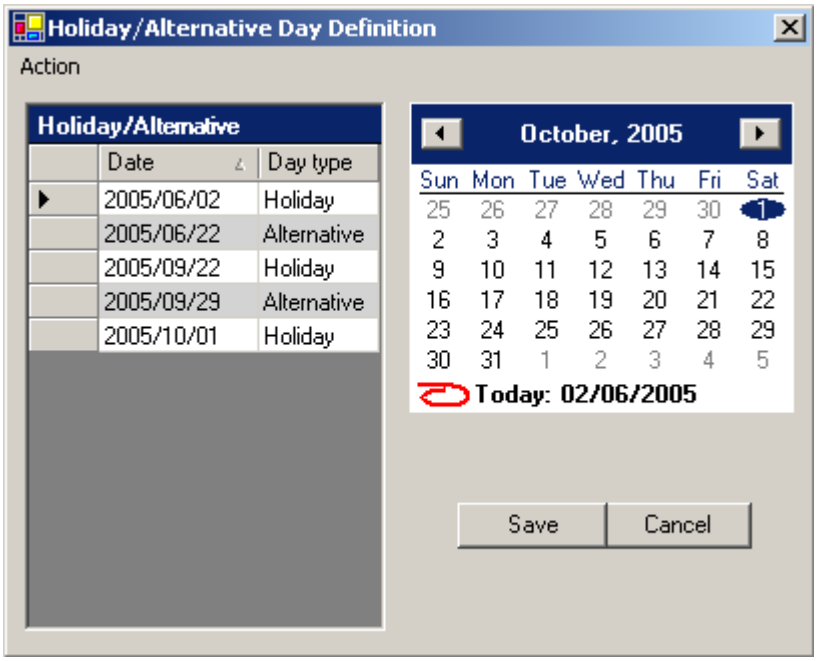


Figure 19: Holiday Table

Table 15: Holiday Table Field Description

Function	Action
Data Grid	
Date	The Date to be defined as holiday/alternative day.
Day Type	The type of the day.
Menu Action	
Add Holiday	The date from the MonthCalendar control will be sent to data grid as a new holiday record. One date can't be defined as both Holiday and Alternative Day, otherwise, an error message will be displayed, and the definition will be canceled.
Add Alternative	The date from the MonthCalendar control will be sent to data grid as a new alternative day record.
Button	
Save	Save the modification to database, and refresh the interface.
Cancel	Cancel the modification.

* Delete record: Highlight the record and push "Del" button of keyboard

Testing Procedures

CSpage includes 3 function modules: alarm capturing, paging objects processing and modem operation. To simplify the T&C, 3 testing interfaces are designed to let operator test the function modules separately. It is recommended that the operator conduct all three testing procedures before conducts whole system commissioning.

Testing GSM Modem

This testing is to make sure that the GSM modem, SIM card, and modem configurations are working properly.
To conduct the testing, the operator needs to

1. Login the CSpage by Admin level password, and configure the modem from modem interface (Admin→Modem Cfg) as describe in Table 5.
2. From Admin→Global Cfg→Acknowledge, select radio button “No Acknowledgement”. This will make sure that the operator can read the SMS in GSM modem, since other configuration will let the CSpage purge the SMS in modem.
3. Click Admin→Modem Test, and the Modem Test interface will be displayed.

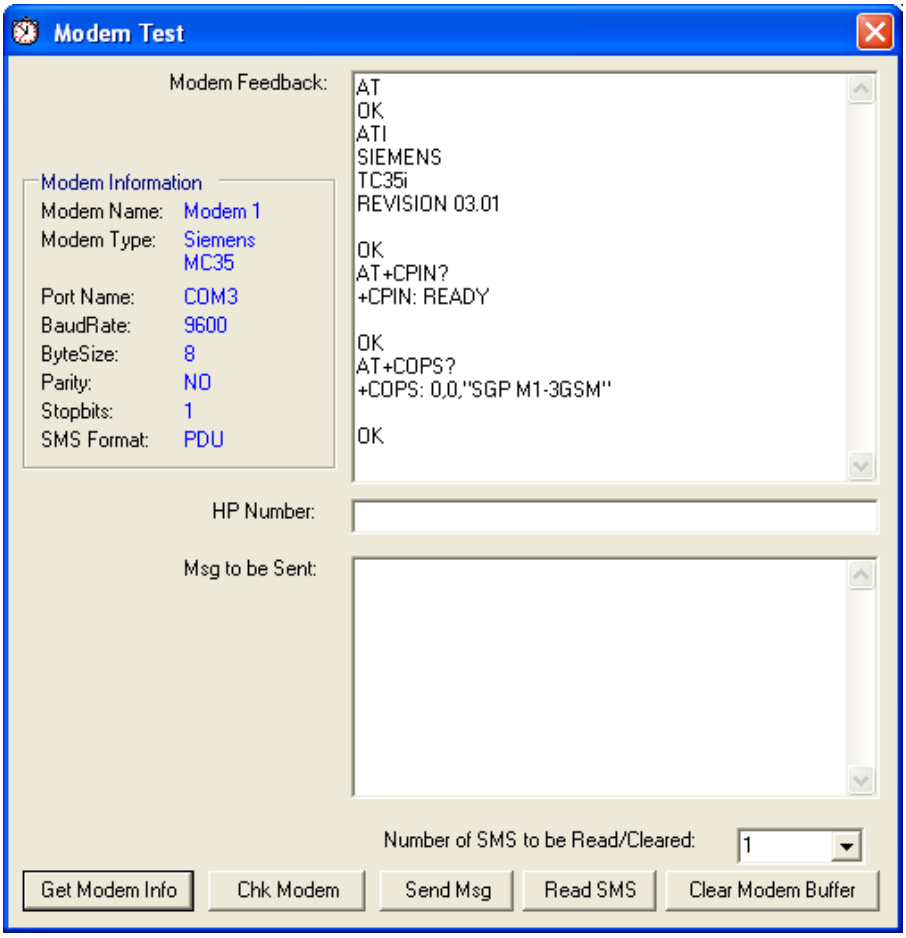


Figure 20: Modem Test Interface

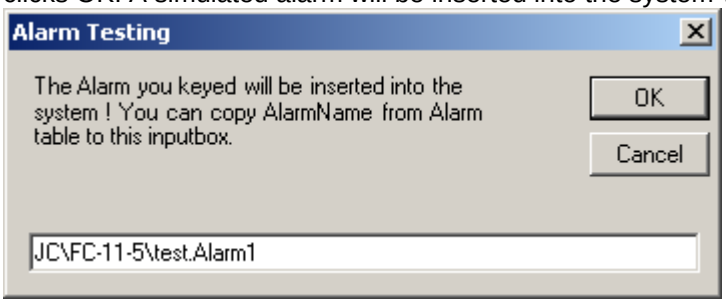
Table 16: Modem Test Interface Description

Field/Button	Description
Modem name	Select a modem to be tested.
Modem Feedback	The content that the modem feedback from com port. If the last word if “false”, that means the modem doesn’t have a feedback. If the last word is “true”, that means the modem communication is ok.
HP/Pager Number	The HP/Pager number that the testing message will be sent to.
Message to be Sent	The testing message to be sent.
Number of SMS to be Read/Cleared	The number of SMS will be read or deleted. The Siemens TC35 can store maximum 30 received SMS. The content in this field will determine how many SMS will be read (by clicking Read SMS), or deleted (by clicking Clear Modem Buffer).
Get Modem Info	Click this button will get modem internal information: ATI: modem model AT+CPI: Whether the SIM card has pin protection. If show “ERROR”, please take out the pin protection on SIM card AT+COPS: Whether links to ISP, and the name of ISP.
Chk Modem	Click this button will send a test command to modem by COM, and the content in Modem Feedback can be used to determine whether the modem communication with CSpage is OK. The last word of feedback is the result. “true” for ok, “false” for error
Send Msg	Click this button will send a SMS to the cell phone with the number defined in “HP Number”, and the content defined in “Msg to be Sent”.
Read SMS	Click this button will get the SMS content received by GSM modem. The content will be displayed in “Modem Feedback”. The number of SMS is defined in “Number of SMS to be Read/Cleared”.
Clear Modem Buffer	Click this button will clear the SMS content in GSM modem, and release the buffer for further receiving SMS. The number of SMS to be cleared is defined in “Number of SMS to be Read/Cleared”. For Siemens TC35 modem, the maximum number is 30.

Testing Alarm Paging Procedure

This testing is to make sure that the paging process is working properly. To conduct this testing, the operator needs to login the CSpage by Admin level password.

Click menu Admin→Test Alarm, and key in the alarm name (tip: the operator can copy alarm name from Alarm table interface Figure 8), then clicks OK. A simulated alarm will be inserted into the system WaitQ.



Notes: If you insert the same alarm twice into the system, they won't be handled as 2 alarms, only the last occurred alarm will be inserted into WaitQ (use the last alarm occurring time to update the AT field). This design also applies to real alarms from OPC.

Click menu Normal→ Acknowledge, and "Acknowledge Alarms" interface will be displayed, to let the operator check the paging situation and do manual acknowledgement.

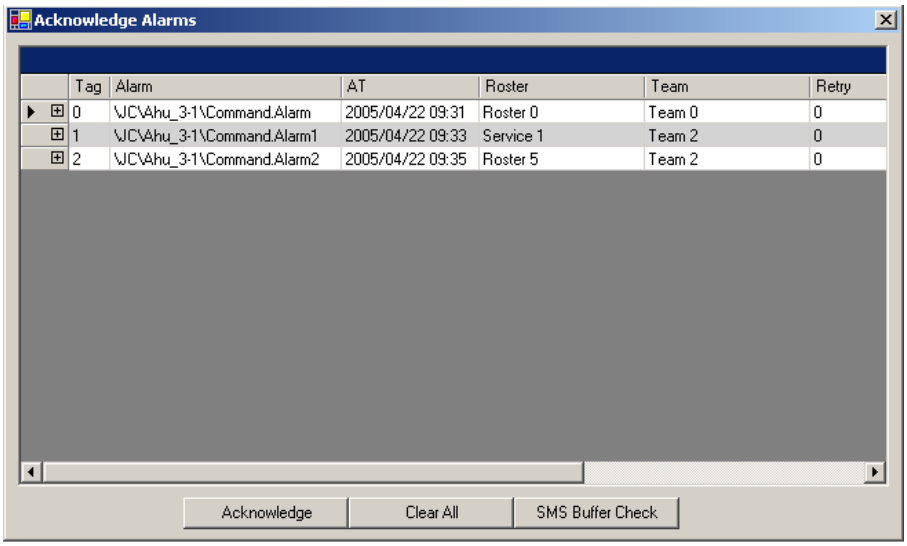
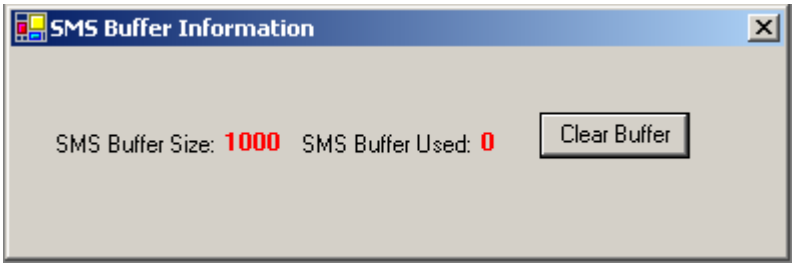


Figure 21: Acknowledge Interface

If a real alarm occurs, and match the Alarm table, the generated alarm objects is also stored in WaitQ and can be checked and acknowledged in this interface.

Table : Acknowledge Interface Description

Field/Button	Description
Data grid	
Tag	A number to differentiate alarms.
Alarm	Alarm name.
At	Alarm occur time.
Roster	Assigned roster of the alarm.
Team	Active team assigned for the alarm.
Retry	Present paging retry count. e.g.: 1 is 1 retry, means 2 more paging for the particular destination. 0 is no retry, means 1 paging for the particular destination.
Position	Present paging sequence order in present group. It counts from 0 to the number of users minus 1. E.g.: A normal group has 3 users assigned with order (1,3,5). The position shown here will be: 0,1,2
Level	Present paging group. Normal: means it is paging in Normal group. Manager: means it is paging in Manager group. Finished: means this alarm's paging has been finished.
Button	
Acknowledge	Delete the present alarm. It will delete the alarm object in the WaitQ.
Clear All	Delete the all of the alarms in the WaitQ.
SMS Buffer Check	Display the SMS buffer. The present version of CSpage has a buffer with the capacity of 1000 SMS. This is for the storing the SMS when the modem can't operate. Once the modem is connected and work properly, the SMS in the buffer will be sent out through the modem. Click the button "Clear buffer" will clear the buffer, and the SMS accumulated in the buffer won't be sent out even when the modem is back to normal. 

Testing OPC AE Server

This testing is to make sure that the OPC AE Client is working properly and can get alarms from BAS.

Click menu Admin→OPC Test, and the "OPC Test" interface will be displayed.

Note: The OPC AE server must be connected to the CSpage before the operator can use this interface. That means the operator needs to check

whether the Status Bar panel 2 is displayed with “BAS: true”. Otherwise, the BAS system and/or OPC configuration (Admin→Global Cfg→General→OPC AE Setup) need to be properly configured.

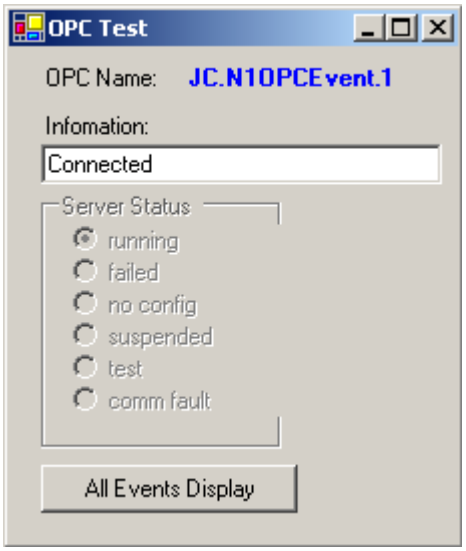


Figure 22: OPC Test Interface

From OPC Test interface and click button “Display All Event”, an OPC subscription interface will be displayed.

When BAS trigs an alarm, the alarm should be shown on this interface. The operator can use the content of “Source” and “Condition” to create alarm name in Alarm table definition.

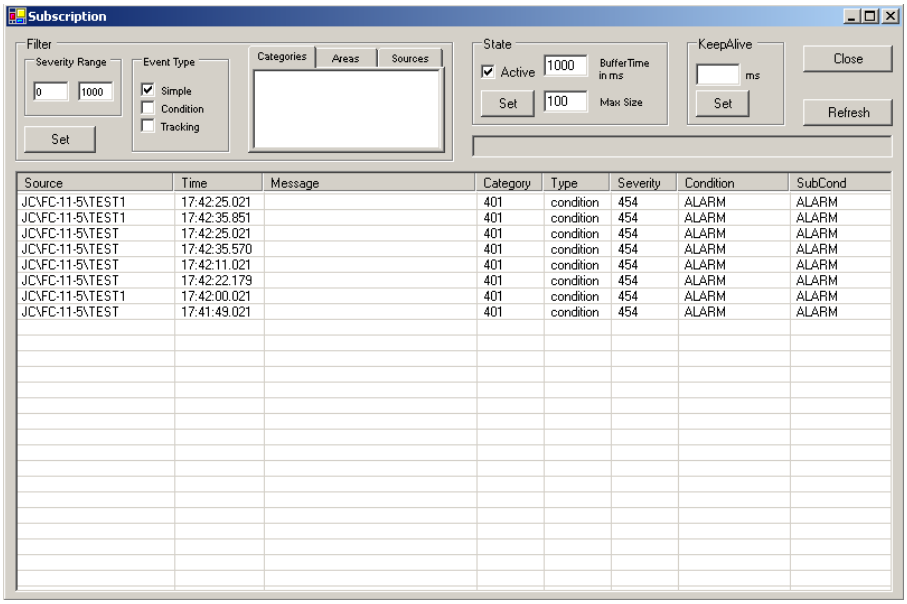
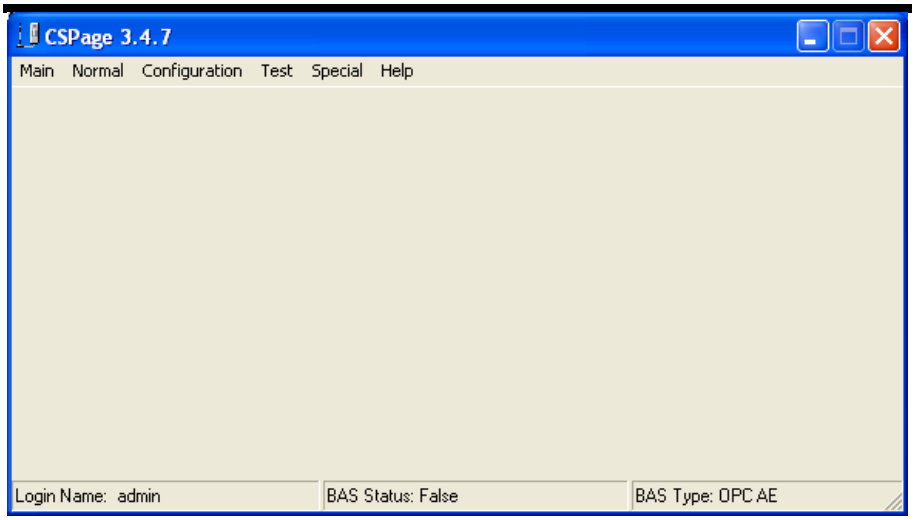


Figure 23: OPC Alarms and Event display interface.

Operation Procedures

Routine Operation



During routine operation, follow the following procedure to make sure the system is under correct status:

1. Click Start→Programs→CSpage→CSpage.exe to start the software
2. Check the status bar panel 1. It should be empty or “Login Name:”
   - ❖ If it shows: “no license! The system will stop in 60 mins.” it means the software is not authorized. A license needs to be installed.
   - ❖ If it shows: “Login Name: xxxx”, it means the software is under login status. It is recommended that the operator logout if he has finished the configuration.
3. Check the status bar panel 2. It should show “BAS: true”. If it shows: “BAS: false”, it means the BAS system is not properly connected to the CSpage. Need to check configuration of CSpage OPC AE configuration and/or BAS system.
4. Check the log file. If it can’t show log file, the operator need to check the log file reader configuration.
5. If for testing or other purpose, the user wants to block the incoming alarms: Click Special→Block Incoming Alarms, this will block the incoming alarms and won’t let them send SMS out. The user can click Special→Release Incoming Alarms to cancel this feature. If blocking incoming alarm feature is started, it will be auto released within certain minutes (can be define in Admin→Global cfg). The operation status and remaining minutes is displayed on status bar.

Log files

There are 2 log files are designed in CSpage. Event Log is for recording all the events of the system, and PageLog is for recording all of the paging activities. The log files are created by the system. If an operator deletes/moves a log file, the CSpage will auto create a new one at the directory of the CSpage.

To open EventLog file, click menu Main→LogFile→EventLog
To open PageLog file, click menu Main→LogFile→PageLog

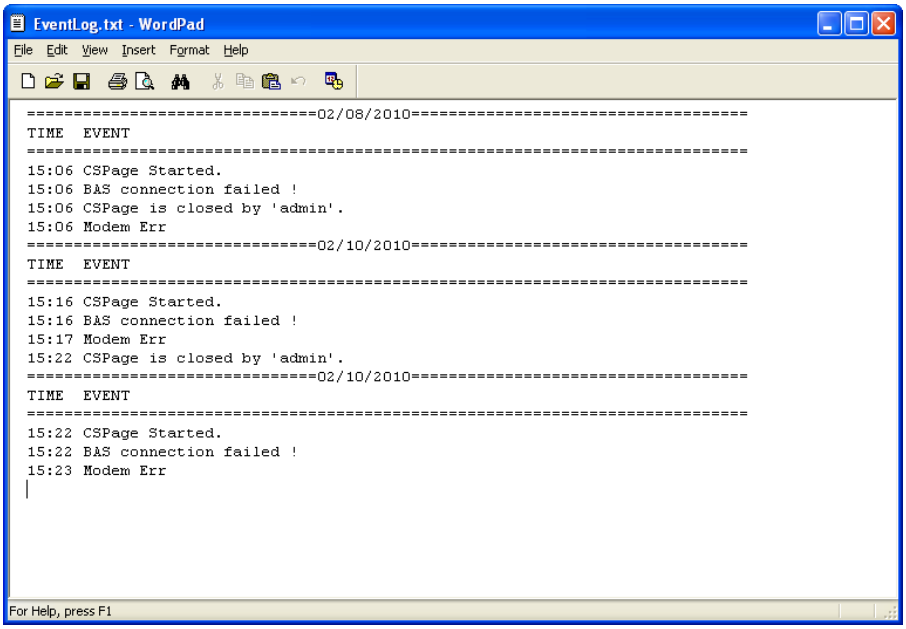


Figure24: Event Log file

Table 18: Event Log file Field Description

Field	Description
TIME	The time when the action/result occur.
Event	Event of the system.

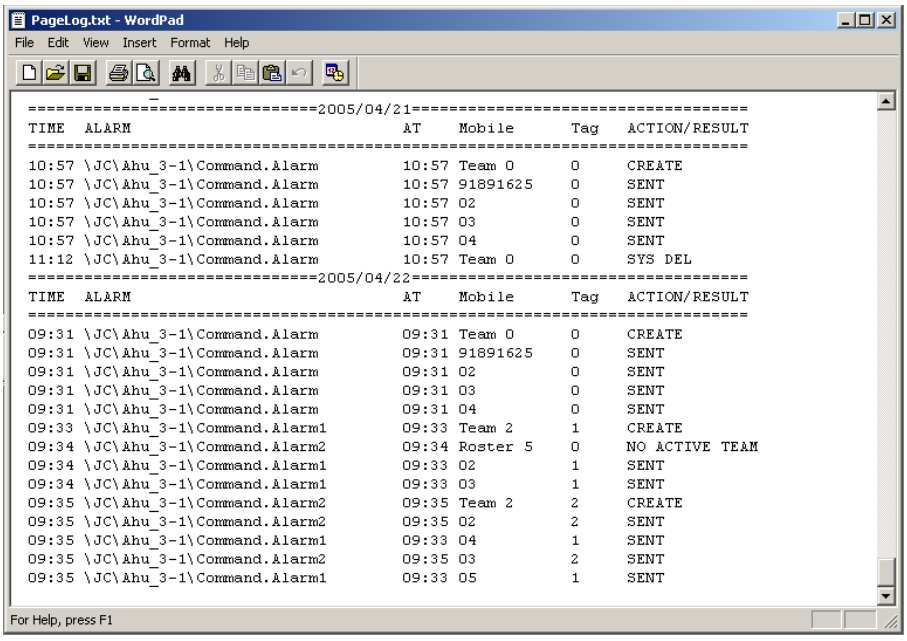


Figure25: Page Log file

Table19: Page Log file Field Description

Field	Description
TIME	The time when the action/result occur.
ALARM	Alarm name.
AT	The time when the alarm occurs.
Mobile	Mobile number, or others.
Tag	A number to differentiate alarms. Each newly occurred alarm will be assigned with on unique tag number. The tag will be set to 0 when system boot-up, and increases the number with each of the new assignment.
ACTION/RESULT	Action or action result of the system.

Table20: Definition of action/result field in PageLog file

Content	Description
SYS DEL	The alarm is deleted by system purge.
NO ACTIVE TEAM	Alarm is defined in system, but can't find an active team. (This is normally caused by no team is defined in Roster Schedule database).
NO ACTIVE STAFF	Alarm is defined in system, and has an active team, but no active user can be found. (This is normally caused by no user is defined in Team interface, or all of the users are in on-leave period.
CREATE	Alarm is captured and creates a WaitQ record in system.
SENT	Message has been sent out.
RESENT	Message has been re-sent out. This is by retry action.
PC DEL	One alarm record in WaitQ is deleted from Acknowledgement interface.
PC CLR	All of the alarm records in WaitQ are deleted from Acknowledge interface.
USR ACK	A user acknowledges the alarm by SMS, but the alarm record is not deleted. (This is caused by system acknowledge setting, or the alarm record is already deleted before the user SMS back).
USR DEL	A user acknowledges the alarm by SMS, and the alarm record is deleted from WaitQ.