# CASE STUDY





UTEK the CommtechWireless partner in Australia developed an Alarm Monitoring and Paging System deployed on 8 oil rigs deployed in Victoria – Australia. Utilizing CommtechMessenger messaging platform together with Fusion hardware they successfully created a solution that would manage all the communications required by oil rig management. The following document is the resulting functional specification.

This document summarises the functional description and features provided by the complete **A**larm **M**onitoring **P**aging **S**ystem (AMPS) installation.
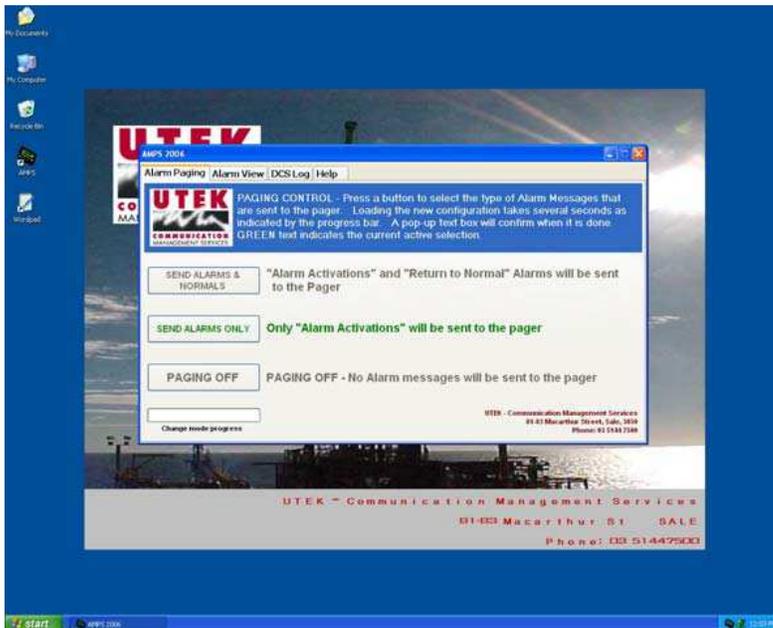


The functions and features are presented to the user as a graphical display with a tabbed menu, push buttons and help instructions. This ensures simple and quick access to the numerous functions.

**TABBED MENU – FOR ACCESS TO ALL FEATURES & OPTIONS**
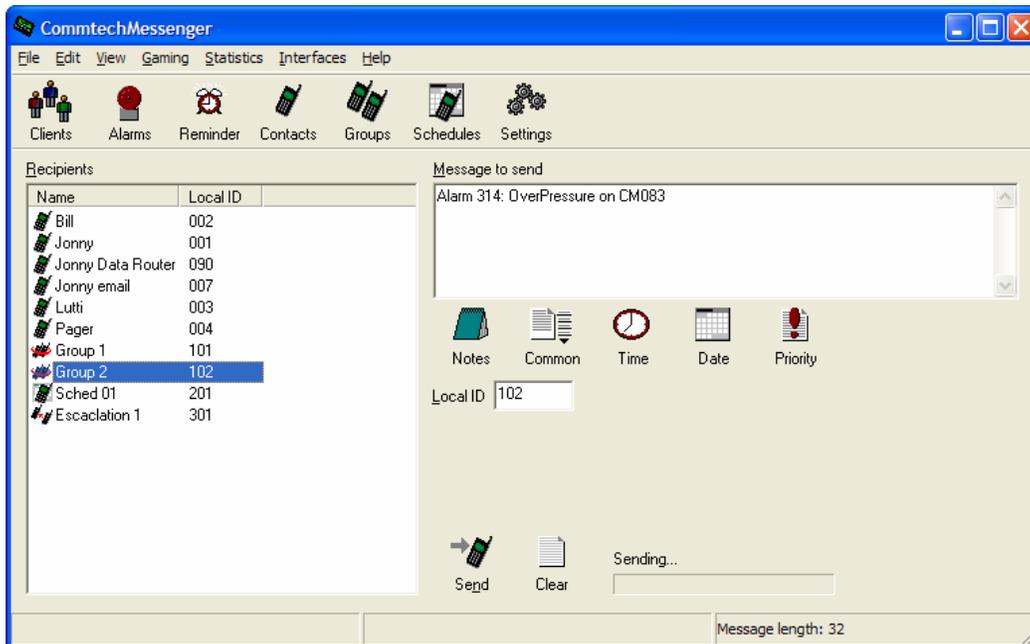


**COMMTECH MESSENGER – CONFIGURATION SCREEN**

**Tabbed Menu Structure**

*ALARM PAGING*
• SEND ALARMS AND NORMALS
• SEND ALARMS ONLY
• PAGING OFF

*ALARM VIEW*
• ALARM VIEW
• RESTORE SCREEN

*DCS LOG*
• OPEN DCS LOG
• DCS LOG TO CD
• DCS LOG TO DVD

*HELP*
• AMPS HELP
• PAGER HELP

**ALARM PAGING**
Data from the Process Control System (Bailey, Honeywell, etc) is continually scanned to identify alarm messages. When alarm messages are detected the text is captured and formatted for correct display on the pager then sent via the paging transmitter.

FEATURES:
• Filters data so that only the required information is sent to the pager
• Structures message for logical layout on pager screen
• System alarm time sent with message
• Stores message history

**USER SELECTABLE PAGER SYSTEM FUNCTIONALITY**
To limit the sending of un-wanted messages to the pager there are 3 different modes that can be easily selected. Selecting any of these does not change any other system functions. The Alarm Log capturing and the Alarm Display still continue in any of the 3 paging modes.

**"Send Alarms & Normals"**
This mode will send the "Alarm Activation" Message as well as the "Return to Normal" Message to the pager.

**"Send Alarms Only"**
This mode has different filtering parameters and detects "Return to Normal" alarm messages and does not send them to the pager. This reduces the number of messages being sent for those operators not requiring the "Return to Normal" alarm messages.
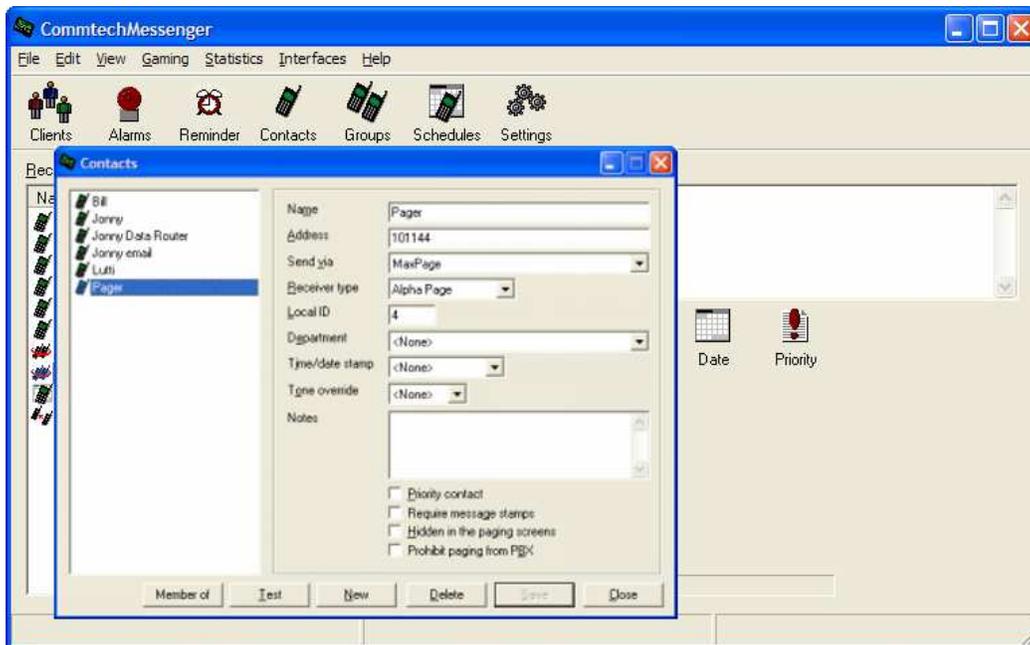
**"PAGING OFF"**
This mode disables sending of any information to the pager. This may be useful during times such as during a major start up when many alarms will be

triggered so that they are not sent. This can also be used to stop (interrupt) a series of unwanted messages as it occurs.
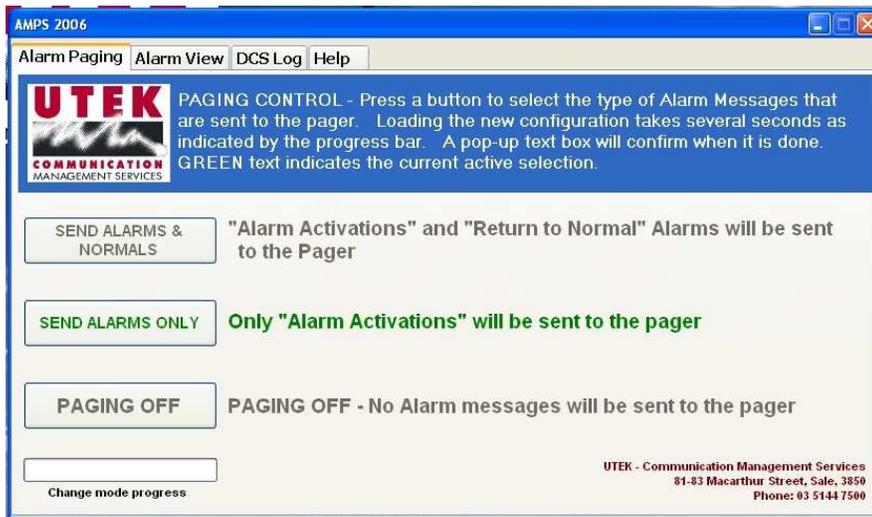


**ALARM PAGING MENU – T**O SET REQUIRED PAGING MODE



**PAGER SETUP MENU – T**O SETUP INDIVIDUAL PAGERS

## DATA LOG
Captures the serial data from the Control System (Bailey, Honeywell, etc) and writes it to a log file. This can be accessed to analyse long-term alarm history or to find cause of recent problems or shutdowns.

The log file is stored on the system in a hidden location to prevent it being deleted or changed. When it is opened as a text file, it is an automatically generated copy rather than the original that is opened.



**DATA LOG – TYPICAL LOG FILE**



**DCS LOG MENU – TO VIEW OR EXPORT LOG FILE**

## FEATURES:

• Captures all messages
• Captures data as it happens
• Writes to text file for easy viewing or import into spreadsheet, etc
• Runs as "Windows System Service" to ensure reliable operation
• Starts automatically on boot-up
• Export to CD/DVD

## ALARM SCREEN VIEW IN CONTROL ROOM

This provides an on screen display in the Control Room of the information &
Alarm messages from the Control System (Bailey, Honeywell, etc). This
continually updates and scrolls as new information arrives.
After a total shutdown this screen will display as soon as the PC has re-
booted. This may provide valuable information about the cause of the
shutdown even if the control system is down. This information may be used so
that a successful re-starts can be done with the problem identified and
isolated, etc.

## FEATURES:

• Display starts automatically on boot-up
• Displays history of previous information at start-up
• Scroll up/down if mouse & keyboard connected
• Accurately follows contents of log file
• Screen view and configuration restored by on screen icon
• Different colors for different information.
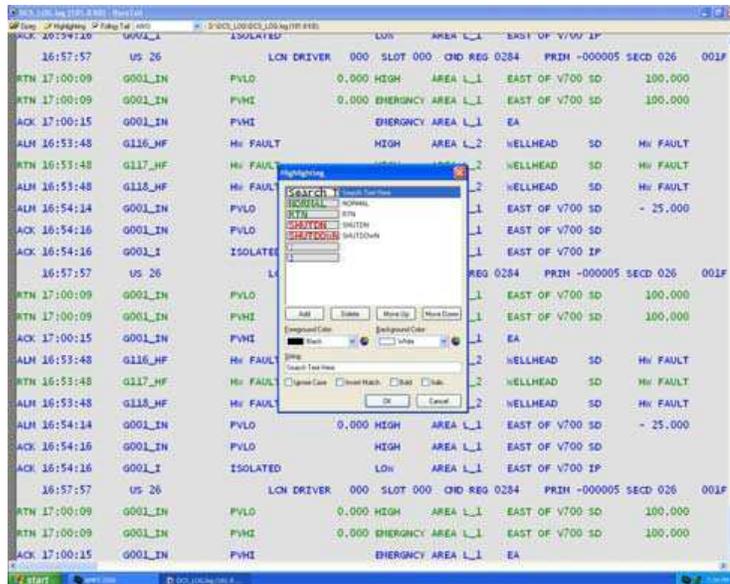


Red = SHUTDN
Green = NORMAL
Blue = Other Dated
Alarm/message lines
Light Grey
=Comment/
information lines

**ALARM SCREEN VIEW – WITH "TEXT SEARCH" FEATURE OPEN**
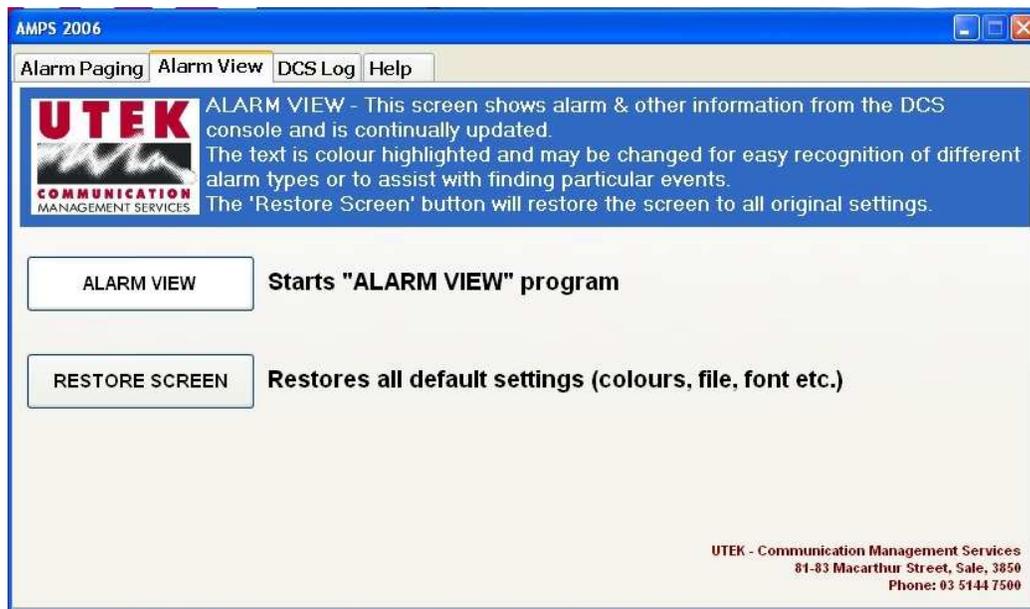
**ALARM VIEW MENU – T**O VIEW OR RESTORE

**Text Search Feature**.
The operator may use the software to highlight specific information. One default search method using black on white has been pre-defined for ease of use.

**CD/DVD WRITER**
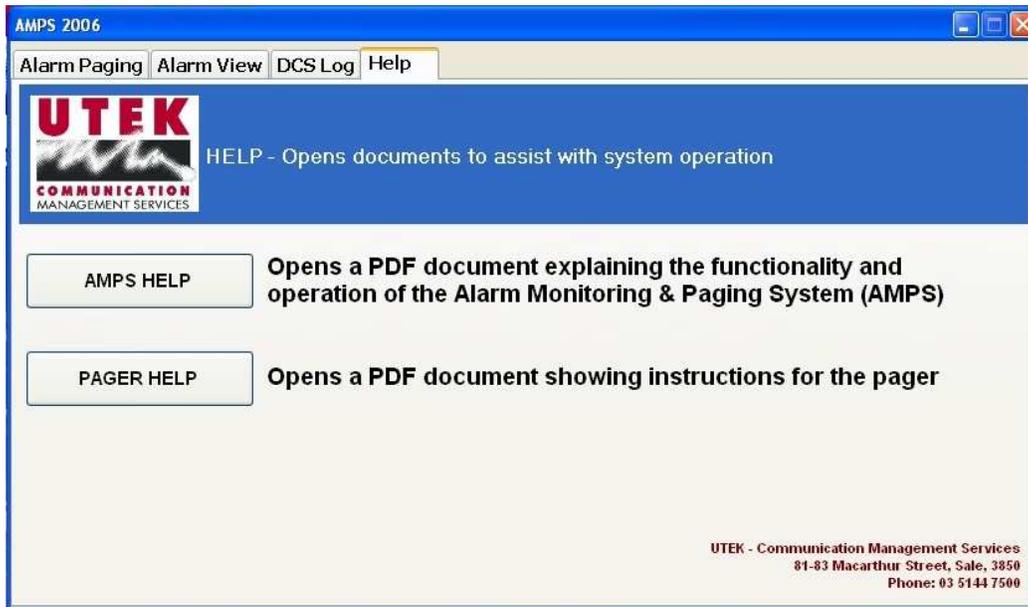CD/DVD Writer and software to enable easy copying of the log file for archive or on-shore
data analysis.

FEATURES
• CD/DVD RW (High speed)
• CD/DVD Software
• Lockable access to drive

**HELP FILES**
Help files are included to assist with all aspects of the system and pager operation.

**HELP MENU – To VIEW HELP FILES**

Press the menu buttons to open either PDF help document
• Alarm Monitoring Paging System (AMPS)
• Pager Instructions

**REMOTE SCREEN/KB/MOUSE**
KVM extender kit (dual port) will be used to provide remote screen viewing and keyboard/mouse function in the control room. The flat LCD screen may be wall or desk mounted and the keyboard/mouse plugged in only as required. An additional port is available at the PC end for configuration and maintenance purposes.

FEATURES:
• Wall mountable screen
• Keyboard & mouse not required for normal operation
• Spare Screen, keyboard & mouse port at PC
• Extender kit allows up to 45 metres across CAT 5 cable

## Contact Details:



**Tel Numbers:**
+27 (0) 83 375 0023 (CT Office)          Jonny Fantozzi
+27 (0) 11 454 4470 (JHBOffice Main No)  Quentin Daffarn
+27 (0) 83 628 8184 (Mobile Preferred)
     (0) 86 50 33 969 (Email Fax Direct)
+27 (0) 11 454 2199 (JHB Fax No/ Intl Fax)