

<b>REV</b>	<b>DATED</b>	<b>DESCRIPTION</b>	<b>AUTHOR</b>	<b>APPROVED</b>
1	20/12/03	Additional screen shots added	PC	TMcL
2	20/09/05	New features added	DA	TMcL



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# 1. Introduction

Welcome to RTK Instruments alarm management software (AMS). This software is designed to provide the user with the ability to display, record, save, print and export detailed alarm data, which has been collected by our associated alarm /event recorder products.

## Basic Requirements

Before installing the RTK AMS software please check that your PC meets the following min requirements

IBM Compatible PC with a min of 600MHz processor

At least 256MB of ram memory

At least 2GB hard drive

800 x 600 SVGA or higher resolution monitor supported by Microsoft Windows

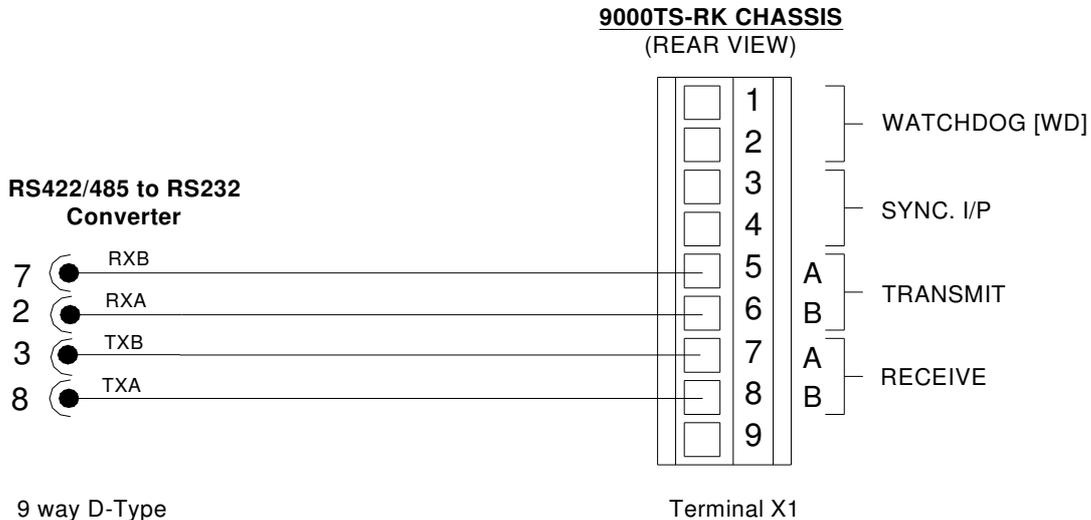
A Printer supported by Microsoft Windows

An Operating System Installed on your computer:- Microsoft Windows NT3, Windows 2000 or Windows XP

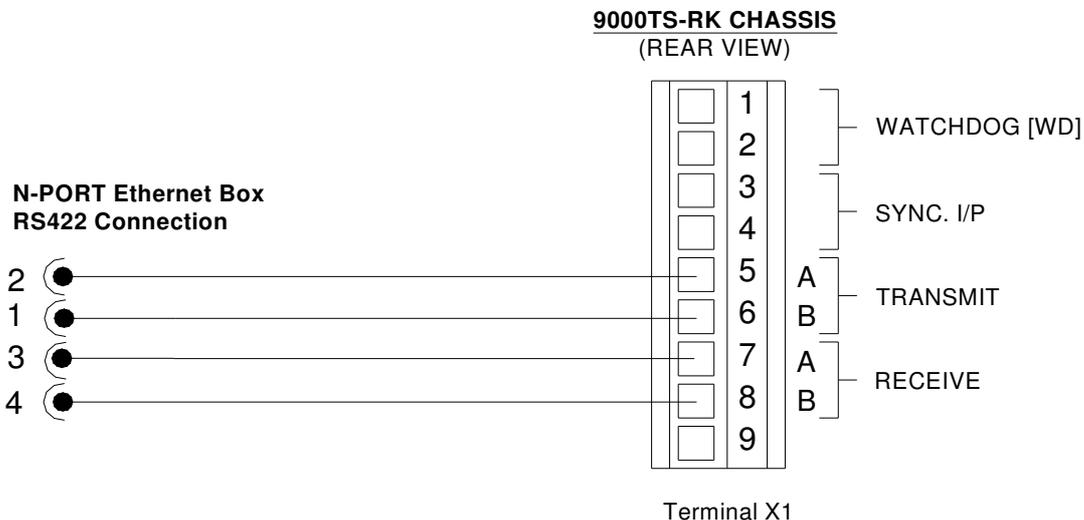
## Serial Cable Connections

The associated PC should be connected to the System 9000TS per the following diagram.

NOTE: If using a standard PC serial port a suitable RS485 to RS232 converter must be used.



The System 9000TS can also be used with a RS485 device server which can be connected to the network via an ethernet connection. This can then allow any machine on the network to run the AMS software. The diagram below shows connections to the N-Port DE311 device server, set up as a RS422 connection.



NOTE: If this device is used then the comms port settings in the application may change. See section 16 for details on how to change the comms settings.

## 2. Installing AMS Software

### Preparing For Installation

It is recommended that the user close all existing programs before installing the AMS software. The user must install Panorama P<sup>2</sup> prior to installing the AMS software.

### Installing The Panorama P<sup>2</sup> Software

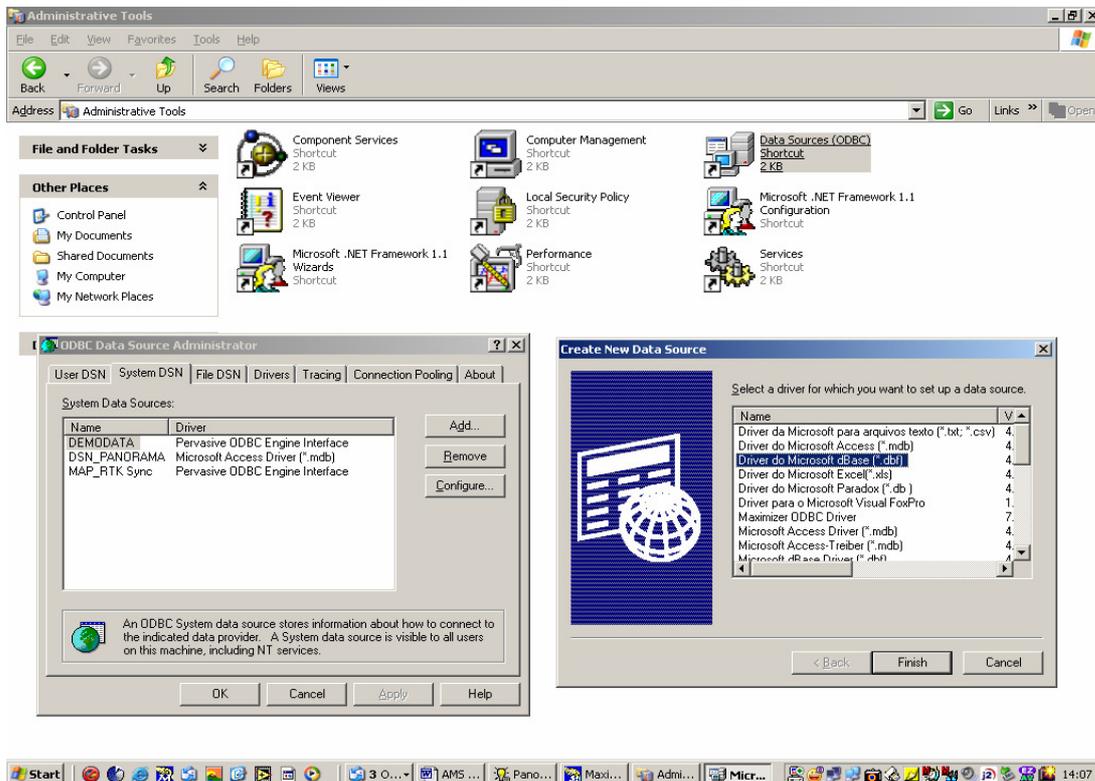
1. Insert the CD ROM into the associated drive and wait for the welcome screen.
2. Select Install Panorama.
3. When prompted for the path that you wish to install the software please use the following location to C:\panorama.
4. Once the installation has been completed please ensure that you restart the PC.

### Installing The AMS Software

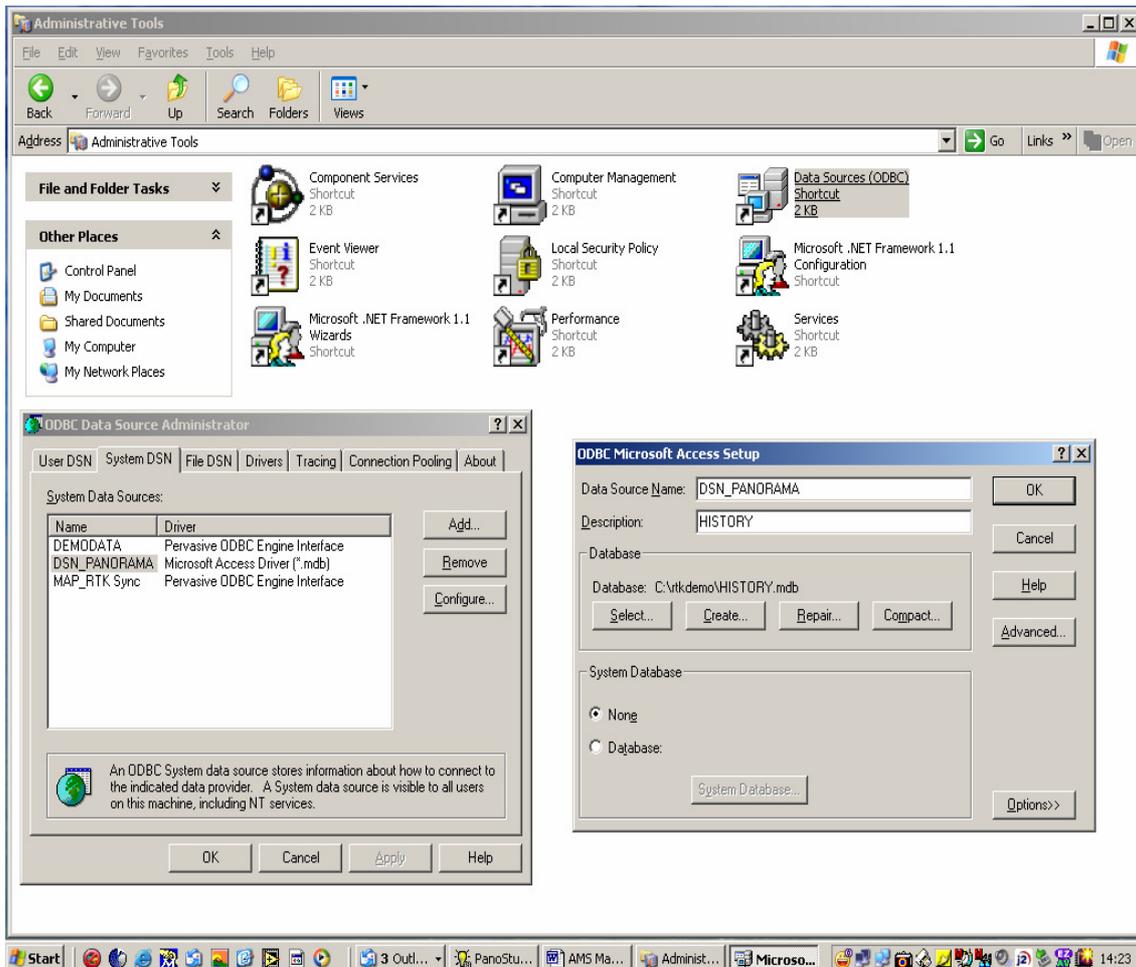
1. Insert the CD ROM into the associated drive and then access windows explorer.
2. Extract AMS(VERSION NO)\_(serial no).zip to your local hard drive using the root path C:\
3. Save the PANORAMA.INI file into the following path C:\windows. (NOTE this may be C:\Winnt with some operating systems)
4. Copy contents of RTKdriver.zip into C:\panorama.

### Configuring The ODBC Data Source

1. From the Desktop of the PC select My Computer.
2. Select Control Panel.
3. Locate and select the Data Sources (ODBC) icon (Location varies with Operating System, for example: - XP = Administrative Tools).
4. Select the SYSTEM DSN tab.
5. Select the "Add" icon.
6. Select Microsoft Access Driver (\*.mdb) from the list provided.



7. In the Data Source Name field type DSN\_PANORAMA
8. In the Description field type HISTORY
9. Under the Database option field use the “Select” icon to locate C:\AMS(VERSION NO)\(serial\_no)\HISTORY.Mdb
10. Select the “OK” icon



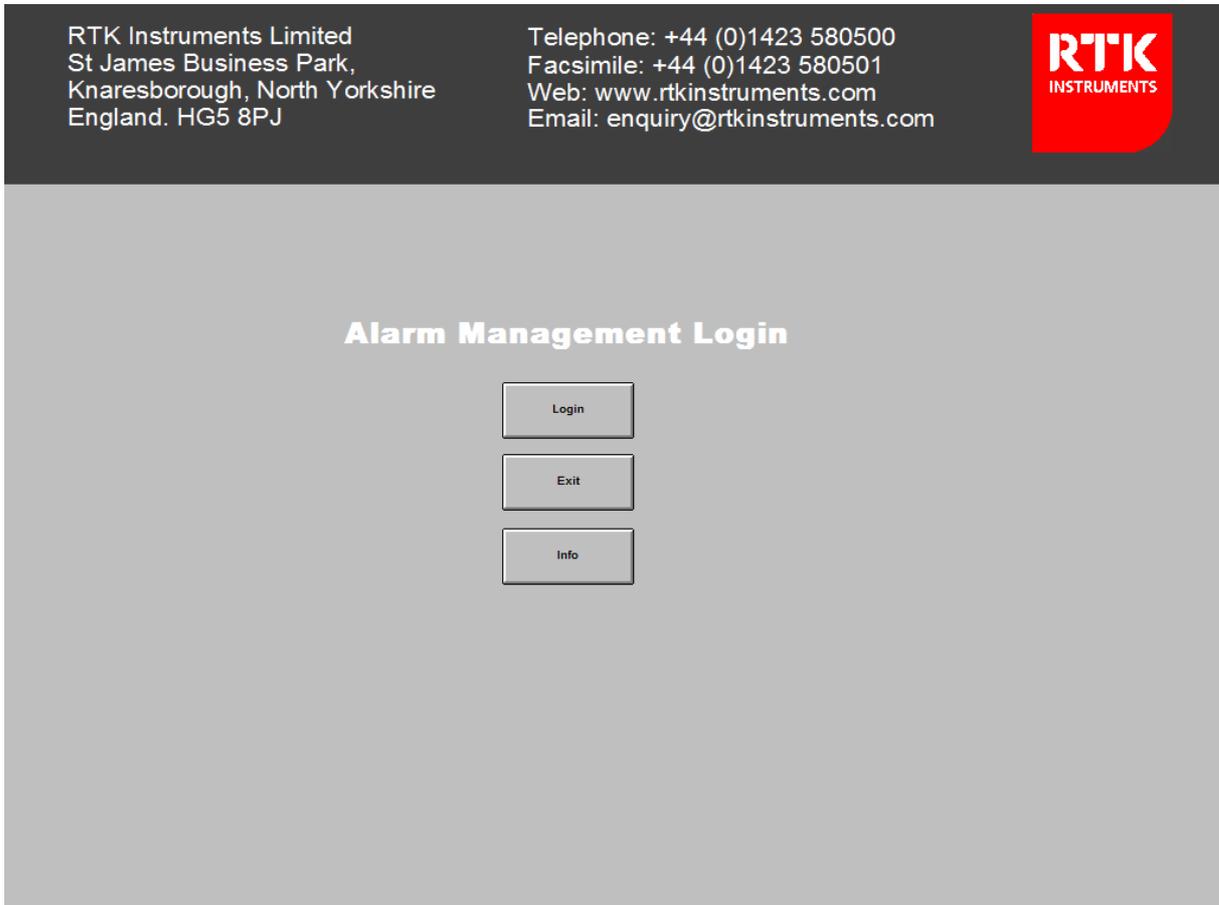
### Opening The Application

1. Select Start from the Desktop
2. Select Programs
3. Select Panorama P2
4. Select Process Viewer
5. Select Log On (see section 13)
6. Enter User name
7. Enter Password
8. Select OK

## 3. AMS Login Screen

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Once the application has been launched the user is presented with a log on screen as shown below.



### ***Login***

This option allows the user to enter the software using a pre-defined user name and password. After the user has entered a recognised user name and password they will be able to select the “OK” icon to enter the software or they can select the “Password” icon to change the password.

Please note:- The AMS software is supplied with the following default settings:-

Username: admin

Password: admin

Additional users can be configured once the application has started and this process is explained in more detail later in this section.

### ***Exit***

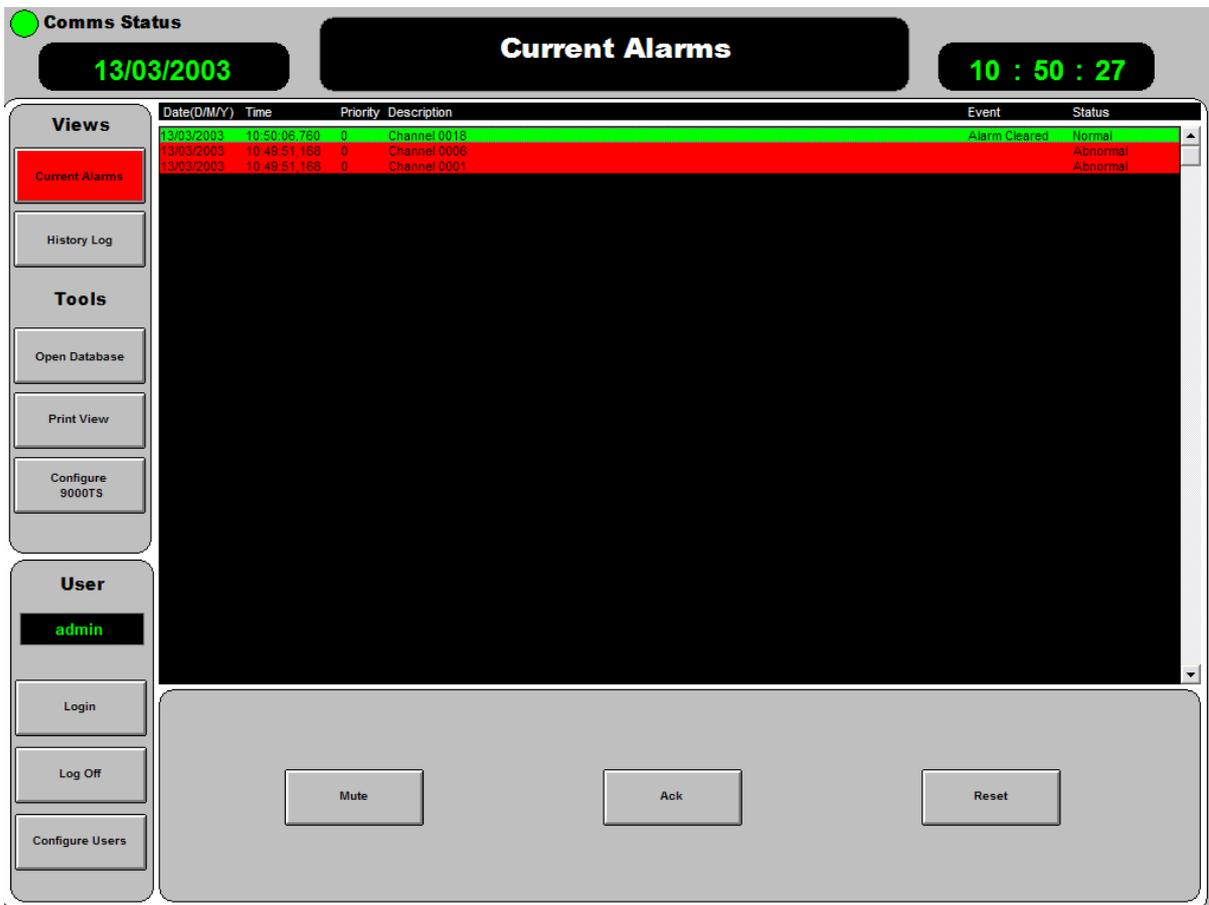
This option will allow the user to terminate the application.

### ***Info***

This option allows the user to view the software version number and system serial number.

## 4. Current Alarm Screen

Once the user has logged into the system the current alarm screen will automatically open.



The following details are shown within the Current Alarm Screen

### **Communication Status**

The user is able to determine the status of the communication link between the AMS software and the associated 9000TS alarm system by viewing the LED icon in the top left hand corner of the display window.

1. If the LED Icon is flashing red there is no communication between the two devices.
2. If the LED Icon is steady on green the communication link is active between the two devices.

### **Date Field**

The Date field is displayed in the following format D/M/Y (Day/Month/Year)

### **Time Field**

The Time field is displayed in the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

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### **Priority Field**

The user can pre-assign a priority level (0-30) to each alarm to help the operator determine either the type of alarm for example Pressure, Level, Temperature, Trip, Status or to determine the level of importance Urgent – Non Urgent. The pre-assigned priority number will appear in this field on a per channel basis once the alarm has been activated. The priority level of each alarm can be changed using the export facility described in section 12 of the manual.

### **Description Field**

The user can pre-assign text messages that will be displayed for each alarm and the Description field is used to display the unique text assigned to each channel once the alarm has been activated.

### **Event Field**

The Event field is used to present the operator with additional information regarding the associated alarm for example alarm ack would be displayed for any channel that has been acknowledged.

### **Status Field**

The Status field is used to indicate the current state of the alarm i.e. Abnormal is used to indicate an input signal is in the alarm condition or normal is used to indicate the input signal has returned to its non-alarm state. The user can change the default wording from abnormal and normal if required as detailed later in this manual.

### **Alarm Activation**

When an alarm occurs the Date, Time, Priority, Description, Event and Status will be displayed on the screen. A red flashing background colour is used to inform the operator that the alarm has just occurred and if required a “wav” file can be used to generate an audible alarm from within the PC. The icon labelled Current Alarms, which is normally used to navigate between the history and current alarm screen, will also flash with a red background. Please note:- Alarms are always displayed in strict time sequence to ensure that the last alarm to occur will always appear at the top of the screen.

### **Mute**

The MUTE pushbutton icon is used to silence the audible alarm.

### **Acknowledge**

The ACK pushbutton icon is used to silence the audible and to convert the red flashing background on the Individual alarm lines and the Current Alarms icon to a red steady-on state. If a channel returns to normal before it has been acknowledged it will still be displayed with a flashing background until the operator selects the ACK icon.

### **Reset**

Depending on the features selected during the detailed engineering phase of the project the operator may also be required to manually reset the alarms. If the alarms have been configured for manual reset before they are removed from the current alarm screen any channel returning to normal will have a steady background colour until the operator selects the Reset pushbutton icon. If this feature is not requested at the time of order the alarms will automatically removed from the current alarm screen once the associated Input has returned to normal.

### Sample Alarm Message

Date (D/M/Y)	Time	Priority	Description	Event	Status
18/10/03	11:00:26:562	1	T401 Bucholz Relay Trip (Stage-1)	Alarm Ack	Abnormal

In the example shown:-

1. The Date field indicates the alarm occurred on the 18<sup>th</sup> October 2003
2. The Time field indicates the alarm occurred at 11 hours, 00 minutes, 26 sec's and 562 milli seconds.
3. The Priority field indicates that the alarm has been assigned to priority group 1.
4. The Description field details the unique text message that has been assigned to this channel i.e. "T401 Bucholz Relay Trip (Stage-1)".
5. The Event field indicates that the operator has acknowledged the alarm.
6. The Status field indicates that the alarm is currently in the abnormal state.

### Text Background Colours

The background colour of each line of text is used to assist the operator determine the state of the associated alarm using the following key.

COLOUR	STATE	STATUS	DESCRIPTION
Red	Flashing	Abnormal	Details a channel going into the alarm state.
Red	Steady	Abnormal	Details a channel in alarm that has been acknowledged.
Green	Flashing	Normal	Details a channel that has returned to its normal state before being acknowledged.
Green	Steady	Normal	Details a channel that has returned to its normal state before being reset.
Purple	Flashing	Error	Details a system error.
Purple	Steady	Error	Details a system error that has been acknowledged.
Grey	Flashing	OK	Details a system error that has returned to normal before being acknowledged.
Grey	Steady	OK	Details a system error that has returned to normal before being reset.

# 5. History Log –All Events

The operator can navigate to the History Log view by selecting the History Log pushbutton icon.

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:06:31.523	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:06:31.522	0	N00C0001T004	Channel 0001	Unshelved
13/03/2003	11:06:25.528	0	N00C0001T002	Channel 0001	Shelved
13/03/2003	11:06:25.488	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:06:25.454	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:06:25.142	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:06:25.070	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:06:25.008	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:06:21.265	0	N00C0006T000	Channel 0006	Normal
13/03/2003	11:06:21.265	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:05:52.000	0	CA002ET144	Input Card 02	Found
13/03/2003	11:05:43.000	0	CA002ET145	Input Card 02	Missing
13/03/2003	11:04:15.000	0	N00C0005T003	Channel 0005	Disabled
13/03/2003	11:04:14.703	0	N00C0005T006	Channel 0005 Input Card Configuration Change	Disabled
13/03/2003	11:04:14.657	0	N00C0003T003	Channel 0003	Disabled
13/03/2003	11:04:14.647	0	N00C0003T006	Channel 0003 Input Card Configuration Change	Disabled
13/03/2003	11:04:14.591	0	N00C0001T006	Channel 0001 Input Card Configuration Change	Disabled
13/03/2003	10:50:06.750	0	N00C0018T000	Channel 0018	Normal
13/03/2003	10:50:06.512	0	N00C0018T001	Channel 0018	Abnormal
13/03/2003	10:50:06.356	0	N00C0018T000	Channel 0018	Normal
13/03/2003	10:50:06.244	0	N00C0018T001	Channel 0018	Abnormal
13/03/2003	10:49:51.168	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:51.168	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:51.146	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:51.146	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:51.101	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:51.101	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:50.652	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:50.652	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:50.608	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:50.608	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:50.466	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:50.466	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:49.832	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:49.832	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:49.682	0	N00C0006T000	Channel 0006	Normal

The following details are shown within the History Log – All Events View

### Date Field

The Date field uses the following format D/M/Y (Day/Month/Year)

### Time Field

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### Priority Field

The user can pre-assign a priority level (0-30) for each alarm in order to help the operator determine either the type of alarm for example Pressure, Level, Temperature, Trip, Status or to determine the level of importance Urgent – Non Urgent. The pre-assigned priority number will appear in this field on a per channel basis once the alarm has been activated.

### Alarm Name Field

This field is used to identify the Node No, Channel No and Event Type for each event. *Example:-*

**N01 C0023 T001** = Node 1, Channel 23, Event Type 1

**Description Field**

The user can pre-assign the alarm text that will be displayed for each alarm and the description field is used to display the unique text message once the alarm has been activated.

**Status Field**

This Status field is used to indicate the type of event that has occurred on the channel. For example:-

**Alarm State**

1. Abnormal indicates that a channel is still in the alarm state.
2. Normal indicates that the alarm has returned to its non-alarm state.

**Channel State**

1. Disabled indicates that the channel has been manually disabled.
2. Enabled indicates that the disabled channel has been manually enabled.
3. Inhibit indicates that the channel within group has been automatically disabled.
4. Uninhibited indicates that the channel within a group has been automatically enabled.
5. Shelved indicates that the channel has been automatically disabled.
6. Unshelved indicates that the channel has been automatically enabled.

**Card Status**

1. Missing indicates that the watchdog function has detected that a card is not present in the system.
2. Found indicates that the watchdog has detected a card has been found in the system

**System status**

1. Error indicates that there is an error within the system.
2. OK indicates that the system error no longer exists.

**Text Background Colours**

Each event that appears on the History Screen has a line of text with a coloured background associated with it to help the operator identify the event type.

COLOUR	STATE	DESCRIPTION
Red	Abnormal	Details a channel going into the alarm state.
Green	Normal	Details a channel returning to normal.
Yellow	Disabled	Details a channel that has been manually or automatically disabled.
White	Enabled	Details a channel that has been manually or automatically enabled.
Purple	Error	Details a system error for example:- missing card, printer fault.
Grey	OK	Details recovery of a system error example:- card found, printer OK.
Orange	Config	Details a configuration change has been made to an input or output card.

## 6. Contact Log - Details

Using the labelled pushbutton icons in the History Log section at the bottom of the Screen the user can navigate to pre-defined screens with filtered data as required.

### Contact Status

**Comms Status**

**13/03/2003** **History Log - Contact Log** **11 : 12 : 22**

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:08:31.523	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:08:25.488	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:08:25.454	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:08:25.142	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:08:25.070	0	N00C0001T000	Channel 0001	Normal
13/03/2003	11:08:25.008	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	11:08:21.265	0	N00C0006T000	Channel 0006	Normal
13/03/2003	11:08:21.265	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:50:06.760	0	N00C0018T000	Channel 0018	Normal
13/03/2003	10:49:06.512	0	N00C0018T001	Channel 0018	Abnormal
13/03/2003	10:50:06.358	0	N00C0018T000	Channel 0018	Normal
13/03/2003	10:50:06.244	0	N00C0018T001	Channel 0018	Abnormal
13/03/2003	10:49:51.168	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:51.168	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:51.146	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:51.146	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:51.101	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:51.101	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:50.652	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:50.652	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:50.608	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:50.608	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:50.466	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:50.466	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:49.832	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:49.832	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:49.682	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:49.682	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:49.433	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:49.433	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:49.206	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:49.206	0	N00C0001T000	Channel 0001	Normal
13/03/2003	10:49:48.113	0	N00C0006T001	Channel 0006	Abnormal
13/03/2003	10:49:48.113	0	N00C0001T001	Channel 0001	Abnormal
13/03/2003	10:49:37.900	0	N00C0006T000	Channel 0006	Normal
13/03/2003	10:49:37.900	0	N00C0001T000	Channel 0001	Normal

**History Log**

All Events System Errors Config Changes

Contact Log Disabled Alarms Internal Events

**Filters**

Text Filter

Date Filter

Priority Filter

When the user selects a pre-defined screen view the associated pushbutton icon is shown with a red background to indicate which report has been selected. In addition the title in the top centre of the screen changes to indicate which report is being viewed.

The following details are shown within the History Log – Contact Log, which is used to review the time individual alarms went into the abnormal and normal states.

### Date Field

The Date field uses the following format D/M/Y (Day/Month/Year)

### Time Field

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### Priority Field

The user can pre-assign a priority level (0-30) for each alarm in order to help the operator determine either the type of alarm for example Pressure, Level, Temperature, Trip, Status or to determine the level of importance urgent – non urgent. The pre-assigned priority number will appear in this field on a per channel basis once the alarm has been activated.

**Alarm Name Field**

This field is used to identify the Node No, Channel No and Event Type for each event. *Example:-*

**N03 C0044 T000** = Node 3, Channel 44, Event Type 0

**Description Field**

The user can pre-assign the alarm text that will be displayed for each alarm and the description field is used to display the unique text message once the alarm has been activated.

Note:- If an Input channel of the 9000TS system has been configured to act as a pushbutton input then the function will be shown in the description field each time the Pushbutton is operated for example:- Test, Mute, Acknowledge or Reset.

**Status Field**

The Status field is used to indicate the status of the associated alarm for example:-

**Alarm State**

1. "Abnormal" indicates that an alarm is in the alarm state.
2. "Normal" indicates that the alarm has returned to the non-alarm state.

Example

Date (D/M/Y)	Time	Priority	Alarm Name	Description	Status
17/03/03	16:35:29:076	2	N00C0004T001	Unique Alarm Text	Normal

In the example shown above:-

1. The Date field indicates the alarm returned to normal on the 17<sup>th</sup> March 2003
2. The Time field indicates the alarm returned to normal at 16 hours, 35 minutes, 29 sec's and 076 milli seconds.
3. The Priority field indicates that the alarm has been assigned to priority group 2.
4. The Alarm Name field indicates Node 00 Card 0004 Event Type 001 has occurred.
5. The Description field indicates the unique alarm text associated with the channel.
6. The Status field indicates that the channel is in the normal state.

# 7. System Errors

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:10:44.046	0	Comms_OK	Communication OK	
13/03/2003	11:05:52.000	0	CA002ET144	Input Card 02	Found
13/03/2003	11:05:43.000	0	CA002ET145	Input Card 02	Missing
13/03/2003	10:47:35.640	0	Comms_OK	Communication OK	
13/03/2003	10:47:34.640	0	Comms_Fail	Communication Loss Detected	
13/03/2003	10:46:28.484	0	Comms_Fail	Communication Loss Detected	

When the user selects a pre-defined screen view the associated pushbutton icon is shown with a red background to indicate which report has been selected. In addition the title in the top centre of the screen changes to indicate which report is being viewed.

The following details are shown within the History Log – System Errors screen

### ***Date Field***

The Date field uses the following format D/M/Y (Day/Month/Year)

### ***Time Field***

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### ***Priority Field***

Priorities are not associated with System Error alarms. This field will always display 0 for system errors.

### ***Alarm Name Field***

The alarm name field is used to identify the Event Type

Example:- Comm's Fail

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### **Description Field**

The description field is used to provide further details to the operator for example:- Communication Loss Detected.

### **Status Field**

This Status field is used to indicate the status of the associated alarm for example:-

### **Card Status**

1. Missing indicates that the watchdog function has detected that a card is not present in the system.
2. Found indicates that the watchdog has found a card in the system

### Typical Example

Date (D/M/Y)	Time	Priority	Alarm Name	Description	Status
01/01/04	16:04:29:963	5	CA000ET145	Card 00	Missing

In the example shown above:-

1. The Date field indicates that an error occurred on the 1<sup>st</sup> Jan 2004
2. The Time field indicates that an error occurred at 16 hours, 04 minutes, 29 sec's and 963 milli seconds.
3. The Priority field indicates that the alarm has been assigned to Priority group 5.
4. The Alarm Name field indicates that Card 000 Event Type 145 has occurred.
5. The Description field indicates that Card 00 has an error.
6. The Status field indicates that the card is missing.

## 8. Disabled Alarms

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:06:31.522	0	N00C0001T004	Channel 0001	Unshelved
13/03/2003	11:06:25.528	0	N00C0001T002	Channel 0001	Shelved
13/03/2003	11:04:15.000	0	N00C0005T003	Channel 0005	Disabled
13/03/2003	11:04:14.657	0	N00C0003T003	Channel 0003	Disabled

When the user selects a pre-defined screen view the associated pushbutton icon is shown with a red background to indicate which report has been selected. In addition the title in the top centre of the screen changes to indicate which report is being viewed.

The following details are shown within the History Log – Disabled Alarms screen

### **Date Field**

The Date field uses the following format D/M/Y (Day/Month/Year)

### **Time Field**

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### **Priority Field**

The user can pre-assign a priority level (0-30) for each channel in order to help the operator determine either the type of alarm for example Pressure, Level, Temperature, Trip, Status or to determine the level of importance urgent – non urgent.

The pre-assigned priority number will appear in this field on a per channel basis once the alarm has been activated.

**Alarm Name Field**

This alarm name field is used to identify the Node No, Channel No and Event Type for each event.

*Example:-*

**N00 C0004 T004** = Node 0, Channel 4, Event Type 4

**Description Field**

The user can pre-assign the alarm text that will be displayed for each channel and the description field is used to display the unique text message once the alarm has been activated.

**Status Field**

This field is used to indicate the status of the associated alarm for example:-

**Channel State**

1. Disabled indicates that the channel has been manually disabled.
2. Enabled indicates that the disabled channel has been manually enabled.
3. Inhibit indicates that the channel within group has been automatically disabled.
4. Uninhibited indicates that the channel within a group has been automatically enabled.
5. Shelved indicates that the channel has been automatically disabled.
6. Unshelved indicates that the channel has been automatically enabled.

Typical Example

Date (D/M/Y)	Time	Priority	Alarm Name	Description	Status
15/04/03	16:04:35:972	4	N00C0004T004	Unique Alarm Text	Enabled

In the example shown above:-

1. The Date field indicates the alarm was Enabled on the 15<sup>th</sup> April 2003
2. The Time field indicates the alarm was Enabled at 16 hours, 04 minutes, 35 sec's and 972milli seconds.
3. The Priority field indicates that the alarm has been assigned to Priority group 4.
4. The Alarm Name field indicates Node 00 Card 0004 Event Type 004 has occurred.
5. The Description field indicates the unique alarm text associated with the channel.
6. The Status field indicates that the channel has been enabled.

# 9. Configuration Changes

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:04:14.703	0	N00C0005T006	Channel 0005 Input Card Configuration Change	
13/03/2003	11:04:14.647	0	N00C0003T006	Channel 0003 Input Card Configuration Change	
13/03/2003	11:04:14.591	0	N00C0001T006	Channel 0001 Input Card Configuration Change	

When the user selects a pre-defined screen view the associated pushbutton icon is shown with a red background to indicate which report has been selected. In addition the title in the top centre of the screen changes to indicate which report is being viewed.

The following details are shown within the History Log – Config. Changes, which is used to review any configuration changes made to the system.

### **Date Field**

The Date field uses the following format D/M/Y (Day/Month/Year)

### **Time Field**

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### **Priority Field**

The user can pre-assign a priority level (0-30) for each alarm in order to help the operator determine either the type of alarm for example Pressure, Level, Temperature, Trip, Status or to determine the level of importance Urgent – Non Urgent. The pre-assigned priority number will appear in this field on a per channel basis once the alarm has been activated.

**Alarm Name Field**

This field is used to identify the Node No, Channel No and Event Type for each event. *Example:-*

**N00 C0004 T006** = Node 0, Channel 4, Event Type 6 = Configuration Change.

**Description Field**

The description field is factory set to indicate the Channel No and the Card type, Input or Output, which has had a Configuration Change made to one of its features.

## Typical Example

Date (D/M/Y)	Time	Priority	Alarm Name	Description	Status
21/10/04	16:04:24:706	8	N00C0004T006	Input card 004 Configuration Change	

In the example shown above:-

1. The Date field indicates a change was made on the 21<sup>st</sup> October 2004
2. The Time field indicates a change was made at 16 hours, 04 minutes, 24 sec's and 706 milli seconds.
3. The Priority field indicates that the change has been assigned to Priority group 8.
4. The Alarm Name field indicates Node 00, Channel 0004, Event Type 006, has occurred.
5. The Description field indicates that a configuration change has occurred on channel 4.

# 10. Internal Events

**Comms Status**      **13/03/2003**      **History Log - Internal Events**      **11 : 17 : 00**

Date(D/M/Y)	Time	Priority	Alarm name	Description	Status
13/03/2003	11:16:42.000	0	ET131	Printer Disconnected	
13/03/2003	11:16:42.000	0	ET138	Raw Log OK	
13/03/2003	11:16:42.000	0	ET136	Modbus Log OK	
13/03/2003	11:16:42.000	0	ET134	Printer Log OK	
13/03/2003	11:16:42.000	0	ET142	Power OK	
13/03/2003	11:16:42.000	0	ET140	Sync OK	

**Views:** Current Alarms, **History Log** (selected), Tools: Open Database, Print View, Configure 9000TS

**User:** admin, Login, Log Off, Configure Users

**History Log Filters:** All Events, System Errors, Config Changes, Contact Log, Disabled Alarms, **Internal Events** (selected)

**Filters:** Text Filter, Date Filter, Priority Filter

When the user selects a pre-defined screen view the associated pushbutton icon is shown with a red background to indicate which report has been selected. In addition the title in the top centre of the screen changes to indicate which report is being viewed.

The following details are shown within the History Log – Internal Events View

### **Date Field**

The Date field uses the following format D/M/Y (Day/Month/Year)

### **Time Field**

The Time field uses the following format H/M/S/mS (Hours/Minutes/Seconds/Milliseconds)

### **Priority Field**

As Internal events are not associated with individual channels no priority is associated with these events. This field is factory set to display Priority Group 0.

### **Alarm Name Field**

This field is used to identify the Event type of the internal event.

*Example:-* ET135 = Printer Log full    ET134 = Printer Log OK

---

### **Description Field**

This field is used to indicate the internal event type in the above example this is Printer Log full or Printer Log OK. A full list of these events can be found in the 9000TS user guide

#### Typical Example

Date (D/M/Y)	Time	Priority	Alarm Name	Description	Status
03/11/03	16:04:29:963	0	ET128	Printer OK	

In the example shown above:-

1. The Date field indicates that an error occurred on the 3rd November 2003
2. The Time field indicates that an error occurred at 16 hours, 04 minutes, 29 sec's and 963 milli seconds.
3. The Priority field indicates that the alarm has defaulted to Priority group 0.
4. The Alarm Name field indicates that Event Type 128 has occurred. (Printer OK)
5. The Description field indicates "Printer OK" to confirm its available.

# 11. History Log - Filters

Rather than displaying all of the alarm conditions within the History Log the user can apply pre defined filters which allows focussed reports to be displayed using specific search criteria such as Text, Date or Priority or a combination of these filters.



The screenshot shows a dialog box titled "Text Filter" with a close button (X) in the top right corner. Below the title bar, there is a label "Search for :" followed by a text input field containing the text "T401 Bucholz Relay Trip (Stage-1)". At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

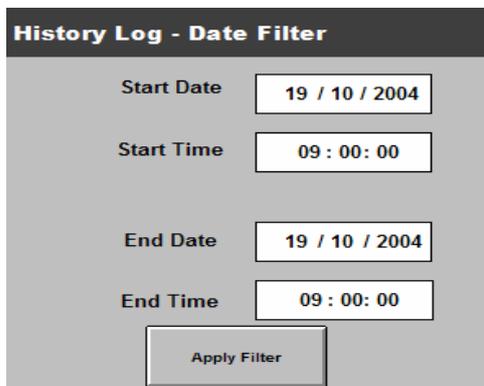
## ***Text Filter***

The Text filter allows the user to display specific information within the history log for example if the user only wanted to view the history of a single channel and they entered "Channel 0001" a list of events unique to this channel would be displayed. Tag numbers, text or wild card searches are also possible.

When the user selects a pre-defined filter the associated filter pushbutton icon is shown with a red background to indicate that the user is viewing a filtered report. To remove the filter clicking on the same filter button will revert the pushbutton background colour to grey to signify that it has been turned off.

## ***Date Filter***

The Date filter allows the user to display events that occurred between defined dates and time periods to allow them to focus on specific event trails.



The screenshot shows a dialog box titled "History Log - Date Filter". It contains four input fields for date and time selection: "Start Date" (19 / 10 / 2004), "Start Time" (09 : 00 : 00), "End Date" (19 / 10 / 2004), and "End Time" (09 : 00 : 00). Below these fields is an "Apply Filter" button.

When the user selects a pre-defined filter the associated Filter Pushbutton icon is shown with a Red Background to indicate that the user is viewing a filtered report. To remove the filter the user clicks on the same Filter button, which will revert the Pushbutton background colour to grey to signify that it has been turned off.

### **Priority Filter**

This filter allows the user to view events associated with a specific priority level (0-30).



When the user selects a pre-defined filter the associated filter pushbutton icon is shown with a red background to indicate that the user is viewing a filtered report.

To remove the filter the user clicks on the same filter button, which will revert the pushbutton background colour to grey to signify that it has been turned off.

## 12. AMS Menu -Tools

Date(D/M/Y)	Time	Priority	Description	Event	Status
13/03/2003	10:50:06.760	0	Channel 0018	Alarm Cleared	Normal
13/03/2003	10:49:51.168	0	Channel 0008		Abnormal
13/03/2003	10:49:51.168	0	Channel 0001		Abnormal

### **Open Database**

If the User has set-up the ODBC link, then they can open the database from within the AMS software by selecting the OPEN DATABASE pushbutton icon.

Please note:- Events that occur after the database has been opened via this link will not be displayed dynamically the user must close and re-open the database to refresh the data.

### **Print View**

Selecting the Print View pushbutton Icon prints all alarms in the current view to the local printer connected to the PC.

### **Configure 9000TS**

Selecting the Configure 9000TS pushbutton Icon will launch the 9000TS configuration software if it has been pre-installed on the same PC.

Please Note:-

The AMS and Configuration software cannot be run at the same time unless two separate communication ports are connected to the 9000TS i.e.

COM1 wired to the PORT located on the rear of the 9000TS-RK Rack Chassis for use with the AMS software.

COM2 wired to PORT2 on 9000TS-X Interface card for the 9000TS Configuration software.

## 13. User Fields

There are two types of users configured within the AMS software each having different access levels as detailed below.

USER	ACCESS
Engineer	This level allows complete access to the AMS and 9000TS Software.
Operator	This level allows access to the AMS software except configure users or configure 9000TS

### ***Login Icon***

If there is more than one user configured to use the system they can login using this pushbutton icon to access the screen that allows them to enter the user name and password.

### ***Log Off Icon***

The user can log off and return to the log in screen to exit the application using this pushbutton icon.

### ***Configure Users***

The user can create user profiles for the AMS system, while the application is running. There are two different access levels as shown above. Important:- The user must ensure that panostudio is not open otherwise you will not be able to configure the user settings.

To create a user:- Select the New User icon and then fill in the following fields:

---

**User:** Enter the user's login name

**Detailed name:** Enter a more detailed name for the user.

**Profile:** Select profile form drop down list, each profile gives different access as shown in table above.

**Disconnection timeout:** Duration in seconds of the inactive time after which the user will be logged out. A -1 value disables this function.

**Password:** Enter user password

**Confirm password:** confirm user password.

**Password validity:** Define a user's password validity, after a time period the user must change their password to log on again. A -1 value disables this function.

**User must change password at next log on:** Check this box if you would like the user to change password when they next log on.

**User can't change his password:** Check box to lock out user from changing their password.

## 14. Automatic Time Synchronisation

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The AMS Software can synchronise the clock on the PC with the clock on the P925TS-X interface card every minute to keep the systems in sync.

If this feature is being used you must remove the daylight saving option on the PC running the AMS software otherwise the time on the printer connected to the P925TS-X interface card which dynamically prints alarms as they occur will show a one hour time difference.

Please Note:- This only applies to 9000TS systems that are using the optional printer facility.

This is a standard feature unless otherwise stated when the AMS software is ordered.

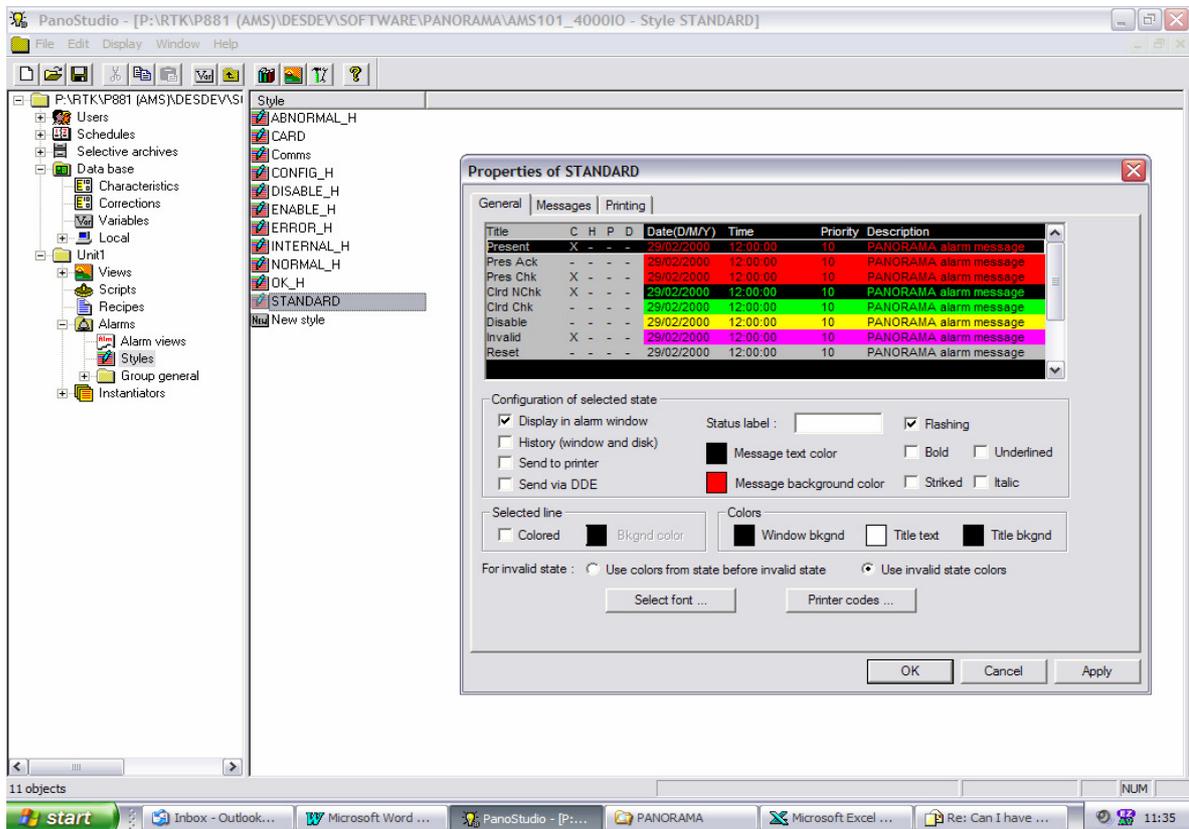
# 15. Automatic Or Manual Reset Manual

The AMS system is factory configured to reset alarms as soon as the associated Input returns to Normal, which will automatically remove the alarm from the current alarm screen. The user can change the Reset function from “Automatic Reset” to “Manual Reset” so that the user has to Manually Reset the alarms before they are removed from the active alarm window.

From the desktop select START, PROGRAMS, PANORAMA P2, PANORAMA STUDIO to enter PanoStudio.

Once in PanoStudio the user must open the saved application using the FILE, OPEN APPLICATION commands.

Once opened use the root path to select Unit 1, Alarms, Styles, STANDARD to view properties as shown below:-



Under the General tab select the Title row labelled Cird Chk and in the Configuration of selected state area check the box labelled Display in alarm window as shown above.

This procedure must be applied to the following styles: STANDARD, CARD, COMMS for all alarms to operate in Manual Reset Mode.

## 16. AMS Communication Port Configuration

As default the AMS software is set-up to communicate to the 9000TS-RK Rack via Comm. Port 1 of the PC. If for any reason this needs to be changed this can be accomplished within panostudio as follows:-

1. Select Start from the Desktop
2. Select Programs
3. Select Panorama P2
4. Select panostudio
5. Select open
6. Select AMS(VERSION NO)\_(serial no)
7. Select OK

Important note:- The access time within the software to make changes is limited to 10 minutes by the AMS development licence; after this time expires you will not be able to save your changes. Please ensure all changes are saved before this time limit elapses otherwise any changes made will be lost.

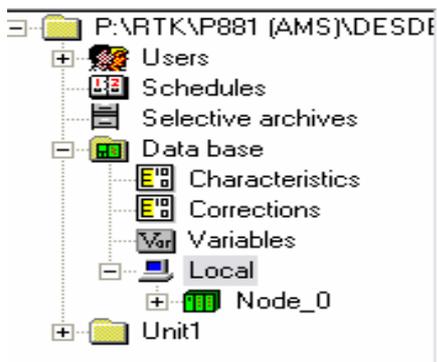
### **Configuring The Communication Port**

As a factory default the AMS software is configured to communicate with the 9000TS rack via communication Port 1 of the PC.

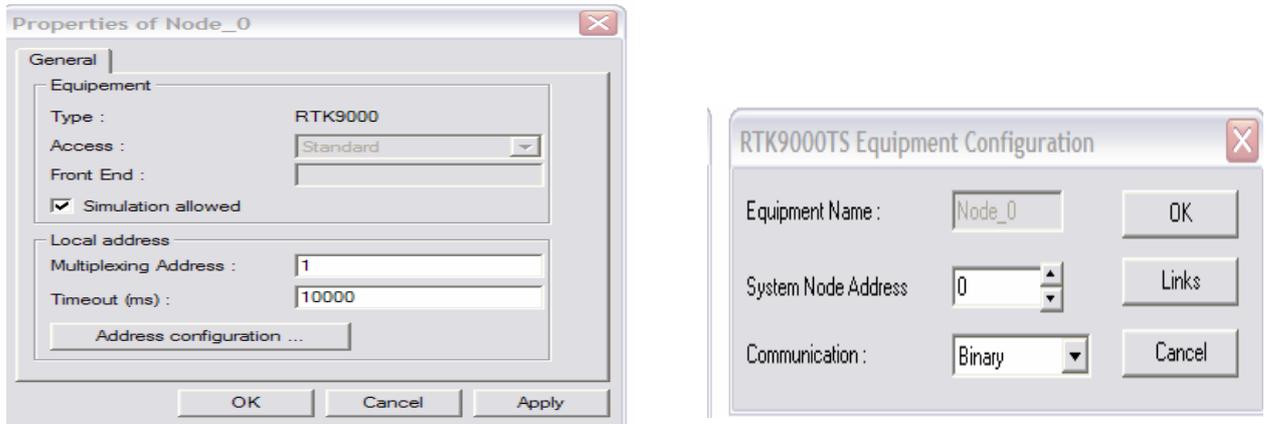
To change this setting from the desktop select START, PROGRAMS, PANORAMA P2, PANORAMA STUDIO to access panostudio and then Open the saved application using the FILE, OPEN APPLICATION commands.

Once the application has been opened use the root path to select Data base, Local, Node\_0, as shown in the root path detailed below.

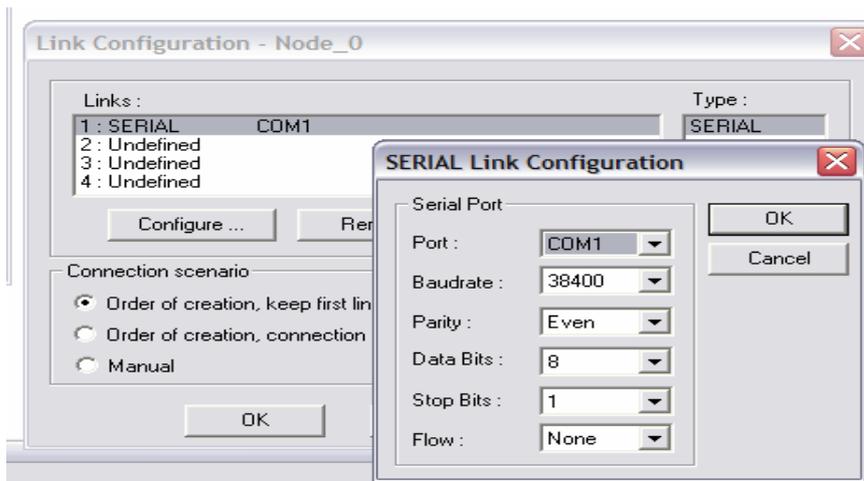
To access the properties, which will allow the user to view the communication port settings right click on Node\_0.



Once the properties Menu has opened select the Address configuration icon, which will open the RTK9000TS Equipment Configuration menu as shown below.



Select the Links icon within the RTK9000TS Equipment Configuration Menu to access the “Link Configuration- Node\_0” Menu as shown below.



Select Link 1 SERIAL followed by the Configure icon to access the SERIAL Link Configuration Menu and note that COM 1 is always set as the factory default.

If required use the drop down menu to select an alternative Port setting and click the OK icon to confirm the selection.

Close all open Menus and use the FILE and SAVE commands to save any changes.

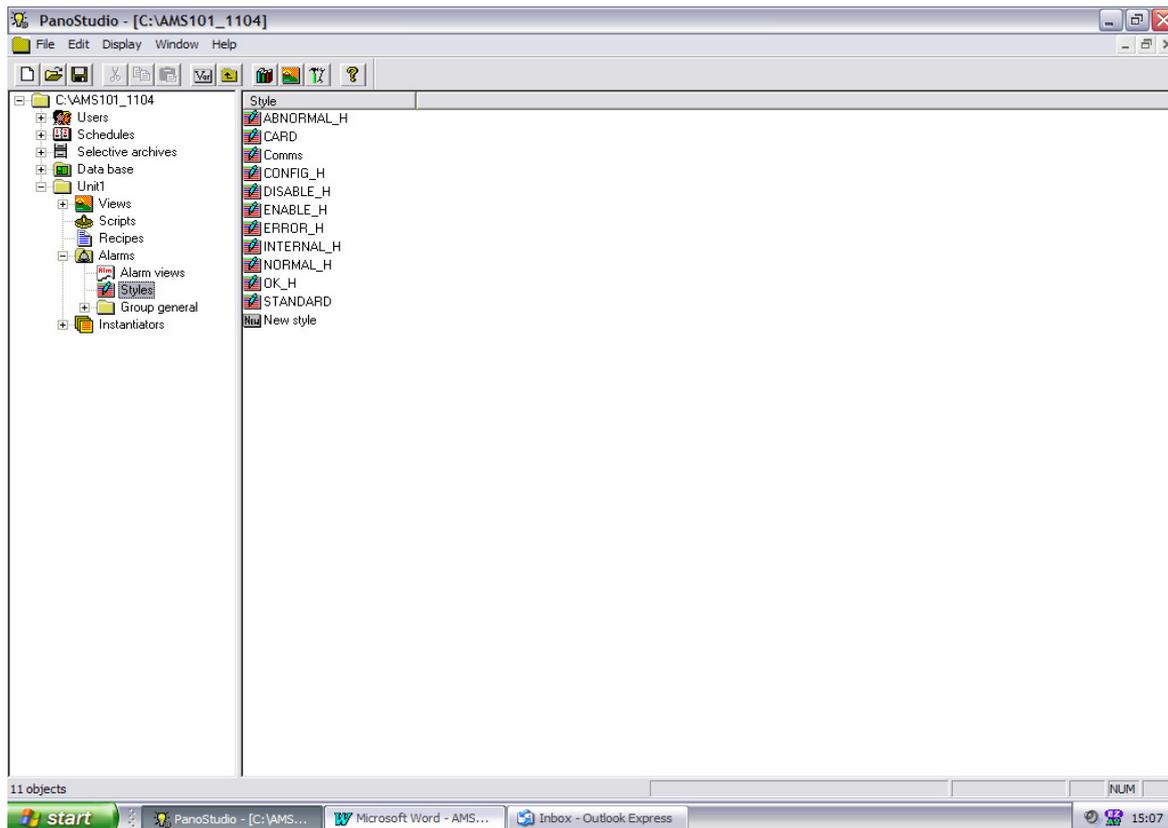
# 17. Configuring The Background Colour

Each alarm type has its own default background colour to assist the operator identify the state of the alarm. The user can change the background colour assigned to each state within panostudio.

From the desktop select START, PROGRAMS, PANORAMA P2, PANORAMA STUDIO.

Once in PanoStudio the user must open the saved application using the FILE, OPEN APPLICATION commands and then use the root path to select Unit 1, Alarms, Styles.

The screen shot shown below details the available Styles.: -



The AMS Software has a number of Styles associated with the History and Alarm screens as shown in the list below.

Each Style will have a unique colour assigned to it to assist the operator in identifying the event.

The following list details the factory default settings.

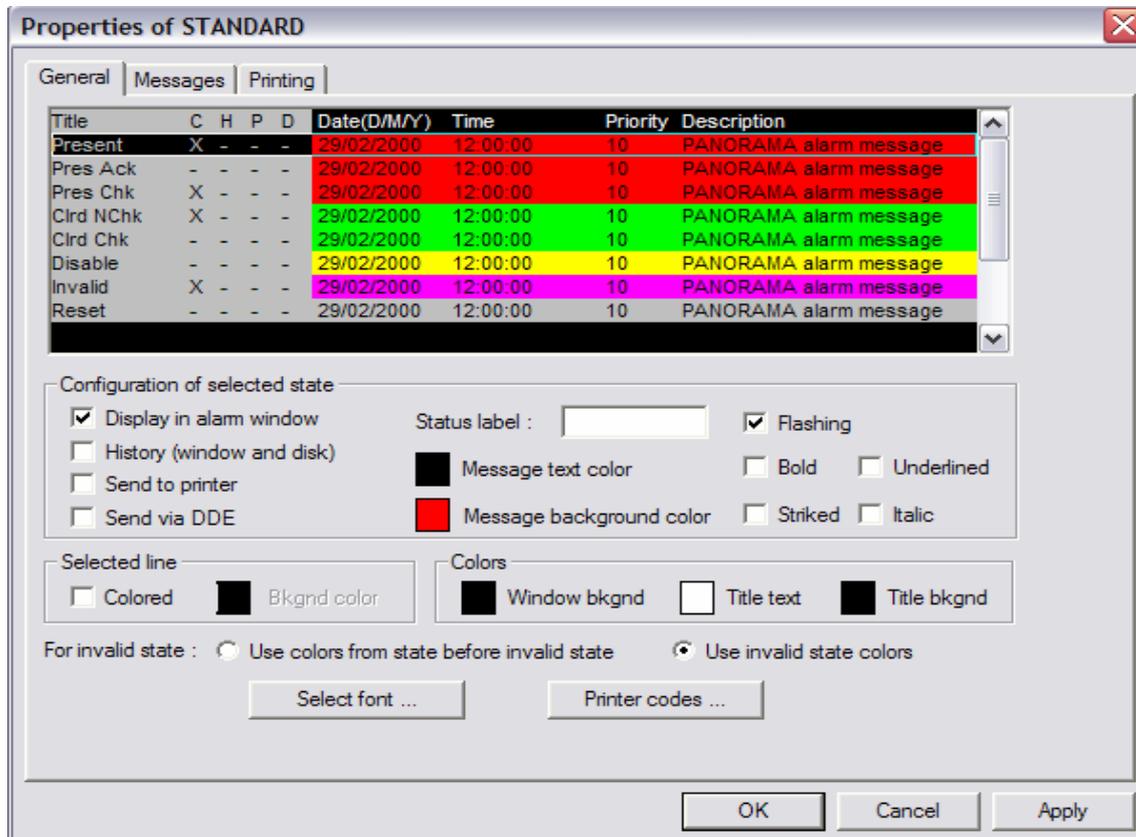
### Styles used within the History Window

<b>ABNORMAL_H</b>	Abnormal events in the history window.	Default RED
<b>NORMAL_H</b>	Normal events in the history window.	Default GREEN
<b>CONFIG_H</b>	Configuration changes in the history window.	Default ORANGE
<b>DISABLE_H</b>	Disabled events in the history window.	Default YELLOW
<b>ENABLE_H</b>	Enabled events in the history window.	Default WHITE
<b>ERROR_H</b>	System errors in the history window.	Default PURPLE
<b>OK_H</b>	System OK in the history window.	Default GREY

### Styles Used within the Current Alarm Window

- CARD** - Card fault = FAULT PRESENT: PURPLE FAULT CLEARED: GREY
- COMMS** - Communication fault = FAULT PRESENT: PURPLE FAULT CLEARED: GREY
- STANDARD** - Alarm = ALARM PRESENT: RED ALARM CLEARED: GREEN

To change a default colour first highlight the style for example **ABNORMAL\_H** and then double click on the selection to access the Properties as shown below:-



---

For any of the states shown under the title view the user can change the colour by highlight the required state shown under the general tab within properties and then double clicking on the Coloured Square next to the Message Background to select another colour.

However Please Note:-

### ***History Screen Background Colours***

When selecting colours for the styles that appear within the History screen only the present field is used within the associated screens.

### ***Alarm Screen Background Colours***

When selecting colours for any of the styles that appear within the Alarm screen, colours can be defined for the following Styles **Present**, **Pres Chk**, **Clrd Nchk** and **Clrd Chk** .

# 18. Config of Legends Using Export Facility

A Microsoft Excel spreadsheet is used to create a file that can be exported into the AMS application software.

This file is exported into the AMS application using a BAT file supplied on the AMS Installation CD.

1. Insert the AMS CD ROM, into the Drive and then navigate to windows explorer
2. Open Export(serial no).zip
3. Copy export(serial no).xls to the following root path C:\
4. Copy the export.BAT file to the desktop.

Open the export file and when prompted select Enable macros.

If the system was supplied pre-configured by RTK the Microsoft Excel template will already include the Customer Tag, Descriptions and Priority details provided by the Customer during manufacturing.

9000TS AMS system Customer Info					Send to export file
RTK Reference	Customer Tag and Description	Abnormal status	Normal Status	Priority	
Channel 0001	Channel 0001	Abnormal	Normal	0	
Channel 0002	Channel 0002	Abnormal	Normal	0	
Channel 0003	Channel 0003	Abnormal	Normal	0	
Channel 0004	Channel 0004	Abnormal	Normal	0	
Channel 0005	Channel 0005	Abnormal	Normal	0	
Channel 0006	Channel 0006	Abnormal	Normal	0	
Channel 0007	Channel 0007	Abnormal	Normal	0	
Channel 0008	Channel 0008	Abnormal	Normal	0	
Channel 0009	Channel 0009	Abnormal	Normal	0	
Channel 0010	Channel 0010	Abnormal	Normal	0	
Channel 0011	Channel 0011	Abnormal	Normal	0	
Channel 0012	Channel 0012	Abnormal	Normal	0	
Channel 0013	Channel 0013	Abnormal	Normal	0	
Channel 0014	Channel 0014	Abnormal	Normal	0	
Channel 0015	Channel 0015	Abnormal	Normal	0	
Channel 0016	Channel 0016	Abnormal	Normal	0	
Channel 0017	Channel 0017	Abnormal	Normal	0	
Channel 0018	Channel 0018	Abnormal	Normal	0	
Channel 0019	Channel 0019	Abnormal	Normal	0	
Channel 0020	Channel 0020	Abnormal	Normal	0	
Channel 0021	Channel 0021	Abnormal	Normal	0	
Channel 0022	Channel 0022	Abnormal	Normal	0	
Channel 0023	Channel 0023	Abnormal	Normal	0	
Channel 0024	Channel 0024	Abnormal	Normal	0	
Channel 0025	Channel 0025	Abnormal	Normal	0	

The spreadsheet shown on the previous page details the following:-

### **RTK Reference**

This RTK reference field defines the unique number used within the software to identify the channel and is for RTK use ONLY.

---

### ***Customer Tag and Description***

The Customer Tag and Description Field is a maximum of 60 characters long and used by the User to assign a unique tag number and / or description to identify each alarm within the AMS software.

### ***Abnormal Status***

The Abnormal Status field is a maximum of 16 characters long and used by the User to identify the abnormal state of an alarm condition. The field is Factory set to "Abnormal" but can be changed as required. (Examples FAIL, FAILED, STOPPED etc)

### ***Normal Status***

The Normal Status field is a maximum of 16 characters long and used by the User to identify the Non Alarm condition. The field is Factory set to "Normal" but can be changed as required. (Examples HEALTHY, OK, RUNNING etc)

### ***Priority***

The Priority Field is used by the User to identify the importance of alarms by assigning a Priority number from 0 to 30 to each channel in turn. This allows the User to easily identify either the Importance of each alarm as it occurs (Urgent – Non Urgent), or helps to identify the alarm Type (Pressure, Level, Temperature, Trip, Status).

### ***Exporting the File***

Once the User has completed all of the required fields on the spreadsheet pressing the "send to export file" button will cause a menu to appear, at the prompt select yes which will trigger a pop up menu and the user should again answer yes when prompted.

The User is then asked if they would like to save the file in an excel format and should answer **NO**.

Once this routine is complete close the spreadsheet and then run the export.BAT file saved on the desktop.

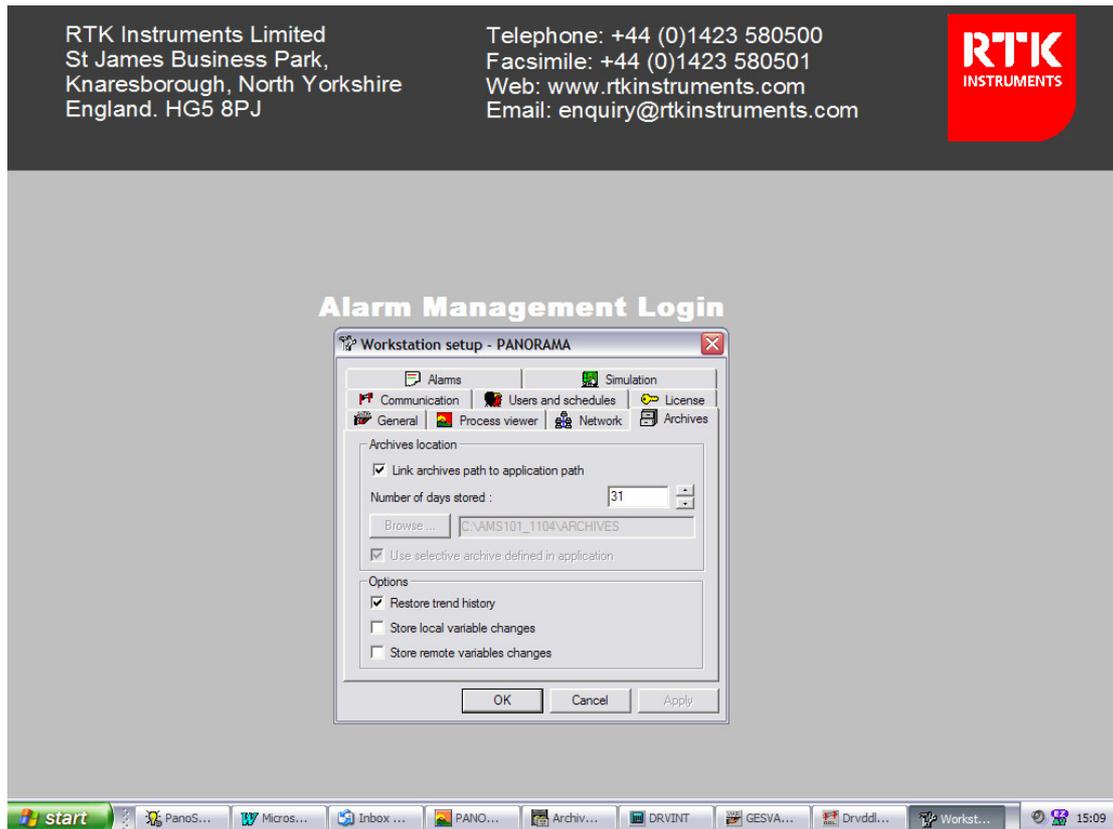
Restart the application by running the panorama process viewer and the changes made should now be present within the AMS Software.

# 19. Automatic Archiving

The AMS System is designed to Automatically Archive the history log for a set period of time. As a factory default Archive files are stored on a daily basis for 31 days and this data is automatically stored into the following root path C:\AMS(VERSION NO)\\_(serial no)\archive\

The number of days that data is stored can be adjusted if required. From the desktop select Start, Programmes, Panorama P2 and then select Configuration.

Select the “Archives” Tab use the arrow and down control buttons to increase or decrease the number of days to store data as required.



To view a file in archive use windows explorer to locate C:\ AMS(VERSION NO)\\_(serial no)\archive\ And select the archives folder. Within the archives folder each day is stored within a unique folder and the date is used to identify the folder. The date format used to identify the individual files is Y/M/D. Example:-04\_10\_03.

Right clicking on any of the archived folders and select Open which will allow the user to view the data in spreadsheet format within Microsoft Excel.

## 20. Troubleshooting Guide

### ***The AMS software does not communicate with the 9000TS SOE/Alarm System***

Please check that the unit has been correctly connected using the Communications port on the rear of the 9000TS-RK Rack please refer to connection details in 9000TS manual.

Please Check that the correct COM port has been set on the PC,  
The AMS software is configured to operate on COM1 as default, please refer to section 4 of this manual if you need to change this setting in the AMS.

### ***The AMS Application won't start***

Please check that you have your licence key plugged into the parallel port of your PC.

Check the panorama configuration path  
On the start menu under Programs go to:

1. Panorama P<sup>2</sup>
2. Configuration

Run-time application path should be C:\AMS(VERSION NO)\\_(serial no).

### ***When you select the configure 9000TS icon from within the AMS software an error message appears.***

Please ensure that the 9000TS configuration software is located in the following path:  
C:\Program Files\Sys9000ts\Ts.exe

### ***The AMS Software will not run while the 9000TS configuration software is running.***

The AMS and Configuration software cannot be run at the same time unless you are using two separate Communication ports to connect to the P925TS-RK Rack Chassis i.e.

COM1 of the PC is linked to the communication Port located on the rear of the P925TS-RK Rack for use with the AMS software.

COM2 of the PC is linked to the communication port labelled PORT2 on the face of the P925TS-X Interface Card for use with the 9000TS configuration software.

### ***The Mute, Ack or Reset Pushbutton Functions are non functional on the AMS screens.***

For the Pushbutton functions to work the User must have an access level greater than 1.

This feature is active using the Engineer profile.

### ***The Time on the AMS Software is one hour different to the one shown on the printer.***

If the AMS system is using the Time Sync option please ensure your PC has daylight saving turned off. Once this feature is disabled the one-hour difference will disappear.

If you don't have the time sync option you must turn off daylight saving when you configure the time using the 9000TS configuration software.

### ***I cannot configure Users as the buttons on the menu are greyed out.***

If Panostudio is open, it automatically locks out the user from changing user settings. Once Panostudio has been closed this will allow the User to configure additional users while the application is running.