Critical-Environments

Visio-3

For Controlled Environments

GENERAL OPERATION GUIDE

CONTENTS

Page

Who should use this Guide?

This guide is to be used by any end-user that will interact with the Visio-3 on a regular basis. It describes how to navigate between the screens, how to view and interpret information and understand alarm events if and when they occur.
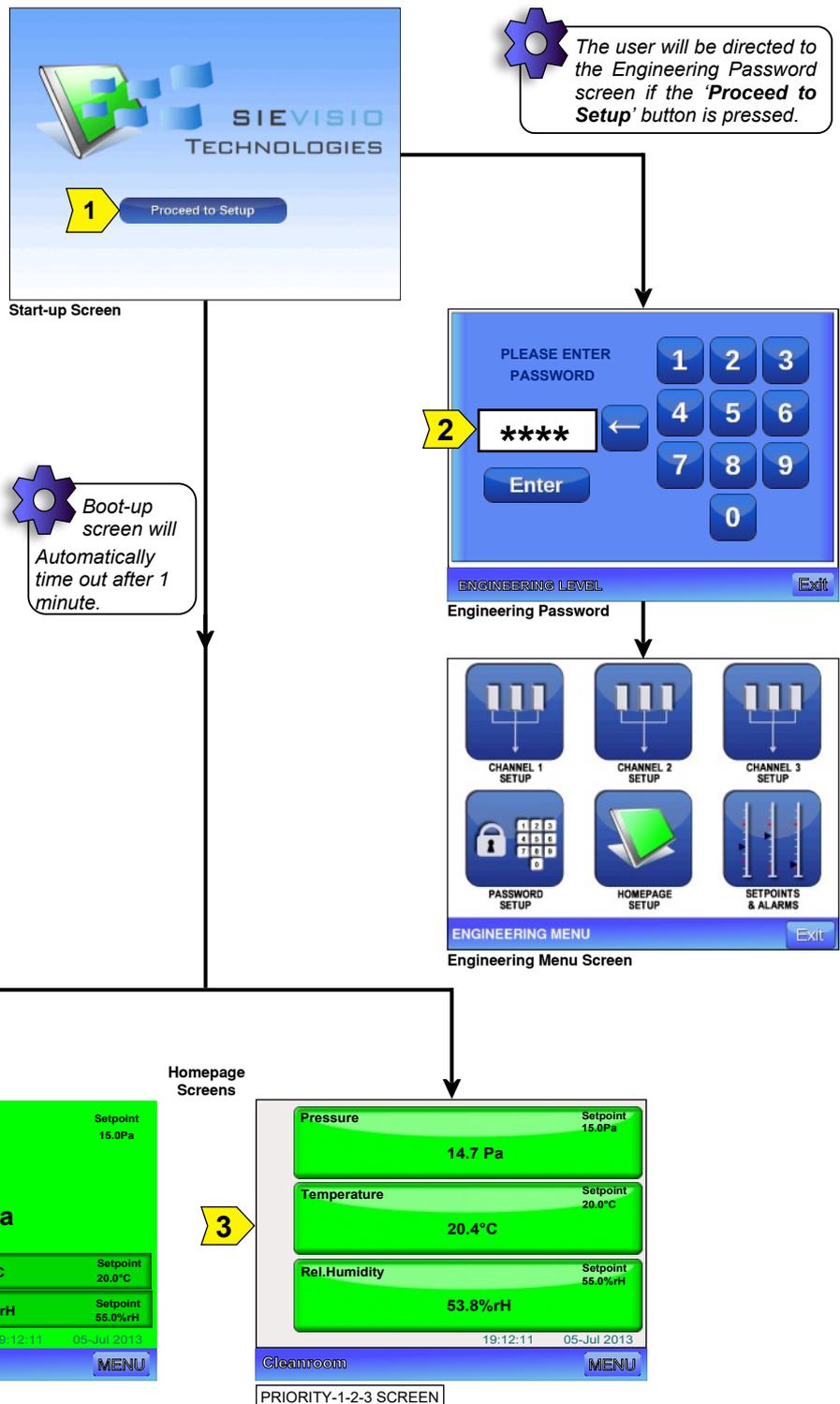
Powerup

For the purposes of this General Operation Guide it is assumed that the Visio-3 has already been installed and commissioned. (Refer to the Installation Manual for details.)

When the Visio-3 is powered up proceed as follows:

Step 1
Startup Screen
When the Startup screen appears, the user has the choice of proceeding to the setup or wait until the screen times out.

Step 2
If the user proceeds to setup, the password screen shown will appear and the user must enter a valid engineering password.
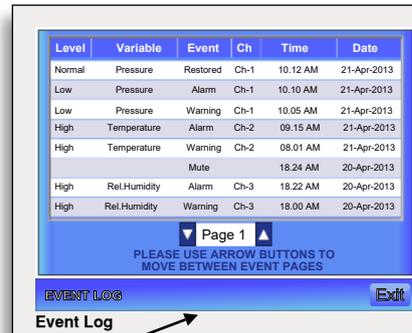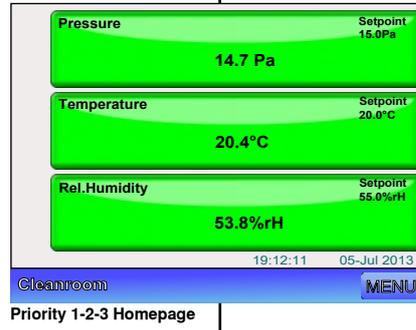
Step 3
Homepage
If the user chooses to do nothing the Boot-up screen will timeout and will navigate the user to the pre-programmed homepage.

Start-up Screen

The user will be directed to the Engineering Password screen if the '**Proceed to Setup**' button is pressed.

Boot-up screen will *Automatically time out after 1 minute.*

PLEASE ENTER PASSWORD
**** Enter
ENGINEERING LEVEL   Exit
Engineering Password

CHANNEL 1 SETUP   CHANNEL 2 SETUP   CHANNEL 3 SETUP
PASSWORD SETUP   HOMEPAGE SETUP   SETPOINTS & ALARMS
ENGINEERING MENU   Exit
Engineering Menu Screen

Homepage Screens

Pressure   Setpoint 15.0Pa
14.7 Pa
Temperature   20.4°C   Setpoint 20.0°C
Rel.Humidity   53.8%rH   Setpoint 55.0%rH
19:12:11   05-Jul 2013
Cleanroom   MENU
PRIORITY-1 SCREEN

Pressure   Setpoint 15.0Pa
14.7 Pa
Temperature   Setpoint 20.0°C
20.4°C
Rel.Humidity   Setpoint 55.0%rH
53.8%rH
19:12:11   05-Jul 2013
Cleanroom   MENU
PRIORITY-1-2-3 SCREEN

The navigation diagram below shows the navigational options between the screens. Only the Trendlog or Homepage screen can be viewed without the input of a password.

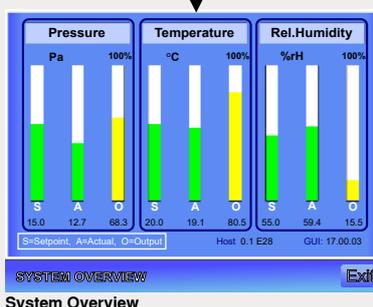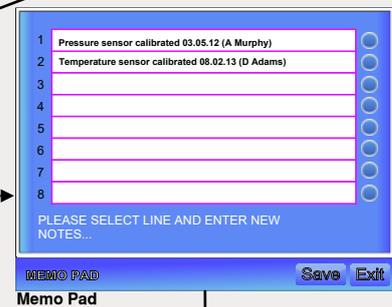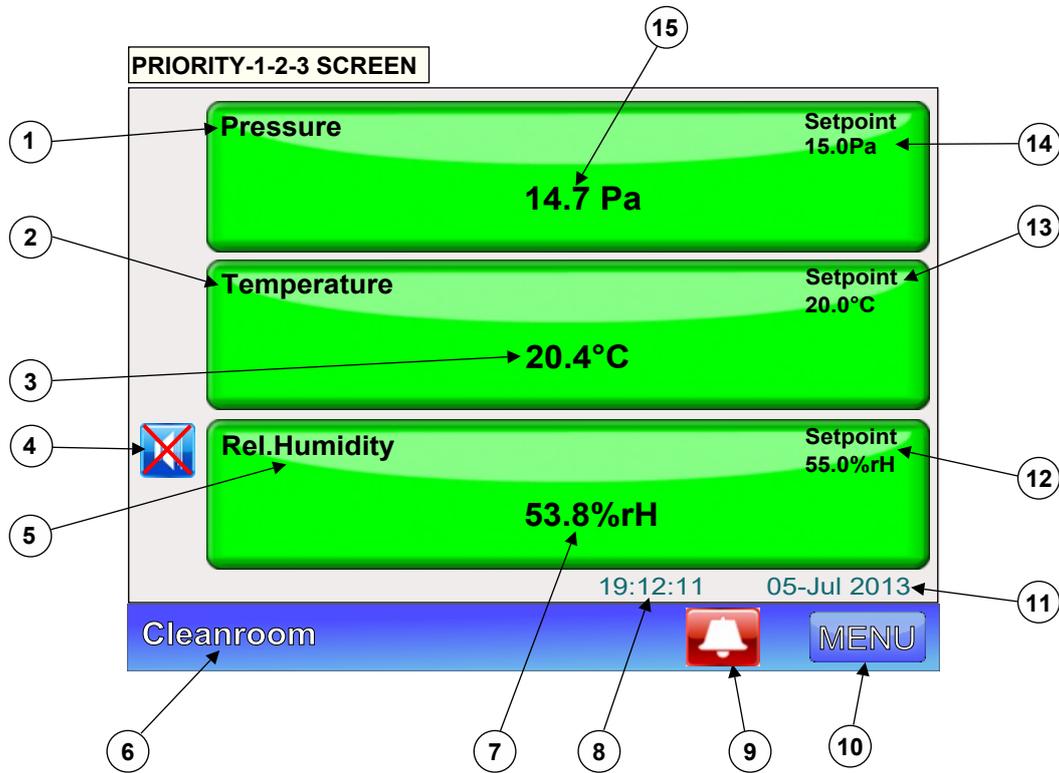**Temperature Trendlog**

Current Temperature   20.4 °C   Exit

23.0 / 13.0 — 10.12 / 16.12 / 16.12

Pressure Trendlog

Current Pressure   14.7 Pa   Exit

19.0 / 8.0 — 10.12 / 16.12 / 16.12

Rel-Humidity Trendlog

Current Rel.Humidity   53.8 %rH   Exit

62.0 / 44.0 — 10.12 / 16.12 / 16.12

The Visio-3 will be setup as either a Priority-1 screen or Priority 1-2-3 screen at the commissioning stage

Priority 1 Homepage

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	20.4°C	Setpoint 20.0°C
Rel. Humidity	53.8%rH	Setpoint 55.0%rH

19:12:11   05-Jul 2013

Cleanroom   MENU

Priority 1-2-3 Homepage

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	Setpoint 20.0°C
20.4°C	
Rel. Humidity	Setpoint 55.0%rH
53.8%rH	

19:12:11   05-Jul 2013

Cleanroom   MENU

Operator Password

PLEASE ENTER PASSWORD

1 2 3 / 4 5 6 / 7 8 9 / 0   Enter

OPERATOR LEVEL   Exit

Event Log

Level	Variable	Event	Ch	Time	Date
Normal	Pressure	Restored	Ch-1	10.12 AM	21-Apr-2013
Low	Pressure	Alarm	Ch-1	10.10 AM	21-Apr-2013
Low	Pressure	Warning	Ch-1	10.05 AM	21-Apr-2013
High	Temperature	Alarm	Ch-2	09.15 AM	21-Apr-2013
High	Temperature	Warning	Ch-2	08.01 AM	21-Apr-2013
		Mute		18.24 AM	20-Apr-2013
High	Rel.Humidity	Alarm	Ch-3	18.22 AM	20-Apr-2013
High	Rel.Humidity	Warning	Ch-3	18.00 AM	20-Apr-2013

▼ Page 1 ▲
PLEASE USE ARROW BUTTONS TO MOVE BETWEEN EVENT PAGES

EVENT LOG   Exit

Screens shown in the shaded area can only be accessed by operators with a valid password

Operator Menu

MUTE   SNOOZE   EVENT LOG
ENGINEERING   OVERVIEW   MEMO

OPERATOR MENU   Exit

Memo Pad

1 Pressure sensor calibrated 03.05.12 (A Murphy)
2 Temperature sensor calibrated 08.02.13 (D Adams)
3
4
5
6
7
8

PLEASE SELECT LINE AND ENTER NEW NOTES...

MEMO PAD   Save   Exit

Engineering Password

PLEASE ENTER PASSWORD

1 2 3 / 4 5 6 / 7 8 9 / 0   Enter

ENGINEERING LEVEL   Exit

System Overview

Pressure	Temperature	Rel.Humidity
Pa 100%	°C 100%	%rH 100%
S A O	S A O	S A O
15.0 12.7 68.3	20.0 19.1 80.5	55.0 59.4 15.5

S=Setpoint, A=Actual, O=Output   Host 0.1 E28   GUI: 17.00.03

SYSTEM OVERVIEW   Exit

Keyboard

Enter line 1:

QWERTYUIOP
ASDFGHJKL   ENTER
ZXCVBNM   SHIFT
SPACE

Exit

The Visio-3 will have been setup to display one of the two homepages displayed below. The priority 1-2-3 homepage is normally used when 2 or 3 sensors are deemed critical and an alarm is required when any sensor deviates from its setpoint. The Priority-1 homepage is used when there is only one sensor critical and the other sensors are used for monitoring purposes only.

PRIORITY-1-2-3 SCREEN

1	Pressure		Setpoint 15.0Pa	14
		14.7 Pa		15
2	Temperature		Setpoint 20.0°C	13
3		20.4°C		
4, 5	Rel.Humidity		Setpoint 55.0%rH	12
7		53.8%rH		
		19:12:11	05-Jul 2013	11
6	Cleanroom		MENU	8, 9, 10

1	Channel 1 Sensor Type	6	Area Description	11	Current Date
2	Channel 2 Sensor Type	7	Current Rel-Humidity Reading	12	Rel-Humidity Setpoint
3	Current Temperature Reading	8	Current Time	13	Temperature Setpoint
4	Buzzer Muted Icon	9	Unacknowledged Alarm Icon	14	Pressure Setpoint
5	Channel 3 Sensor Type	10	Button to Access Main Menu	15	Current Pressure Reading

PRIORITY-1 SCREEN

1	Pressure		Setpoint 15.0Pa	14
15		14.7 Pa		
3	5 Temperature	20.4°C	Setpoint 20.0°C	13
4	Rel.Humidity	53.8%rH	Setpoint 55.0%rH	12
2				
		19:12:11	05-Jul 2013	11
6	Cleanroom		MENU	7, 8, 9, 10
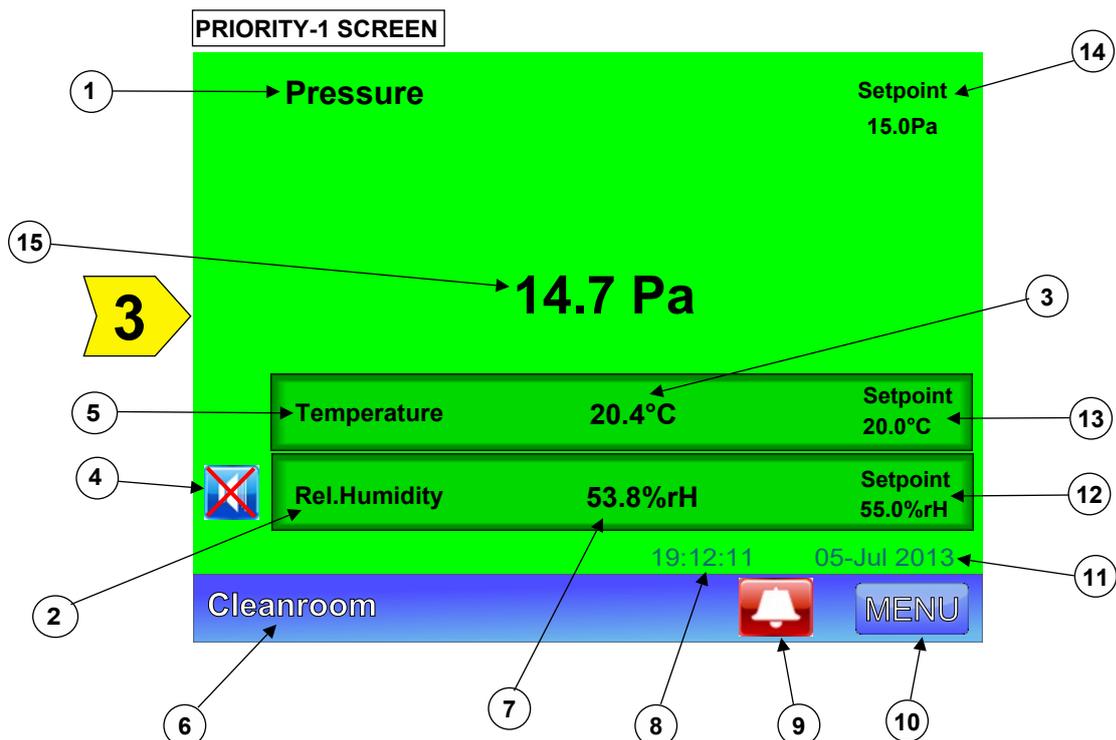
The Trendlog screens provide useful information on the performance of each of the 3 sensor readings for the previous 12 hours. The Trendlog takes a sample every 10 mins thus displaying a total of 72 data samples over a 12 hour period.

Step 1

Viewing Pressure Graph

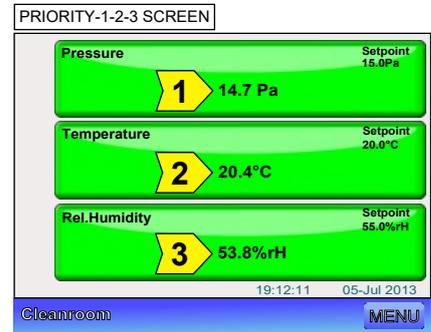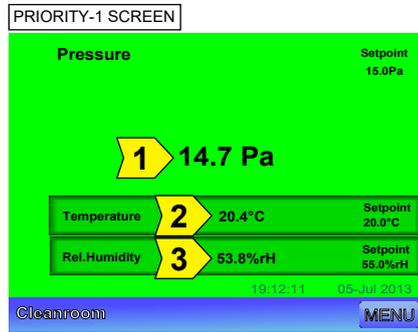Press the current Pressure reading to view trendlog.

Step 2

Viewing Temperature Graph

Press the current Temperature reading to view trendlog.

Step 3

Viewing Rel-Humidity Graph

Press the current Rel-Humidity reading to view trendlog.

PRIORITY-1 SCREEN

Pressure — Setpoint 15.0Pa

1 **14.7 Pa**

2 Temperature 20.4°C — Setpoint 20.0°C

3 Rel.Humidity 53.8%rH — Setpoint 55.0%rH

19:12:11   05-Jul 2013

Cleanroom   MENU

PRIORITY-1-2-3 SCREEN

Pressure — Setpoint 15.0Pa
1 14.7 Pa

Temperature — Setpoint 20.0°C
2 20.4°C

Rel.Humidity — Setpoint 55.0%rH
3 53.8%rH

19:12:11   05-Jul 2013

Cleanroom   MENU

The "Trendlog" screen automatically reverts to the "Homepage" screen 90 secs after opening.

1	Highest Reading in past 12 hours	6	Indicates the time 6 hours ago
2	Lowest Reading in past 12 hours	7	Button to return to Hompage
3	Indicates the time 12 hours ago	8	Indicates the time of last Reading
4	Sensor Type	9	Hourly grid line
5	Current Pressure Reading	10	Graph of Pressure Reading

TRENDLOG SCREEN

1 → 19.0

2 → 8.0

3 → 10.12   16.12   22.12 ← 8

Current Pressure   14.7 Pa   Exit
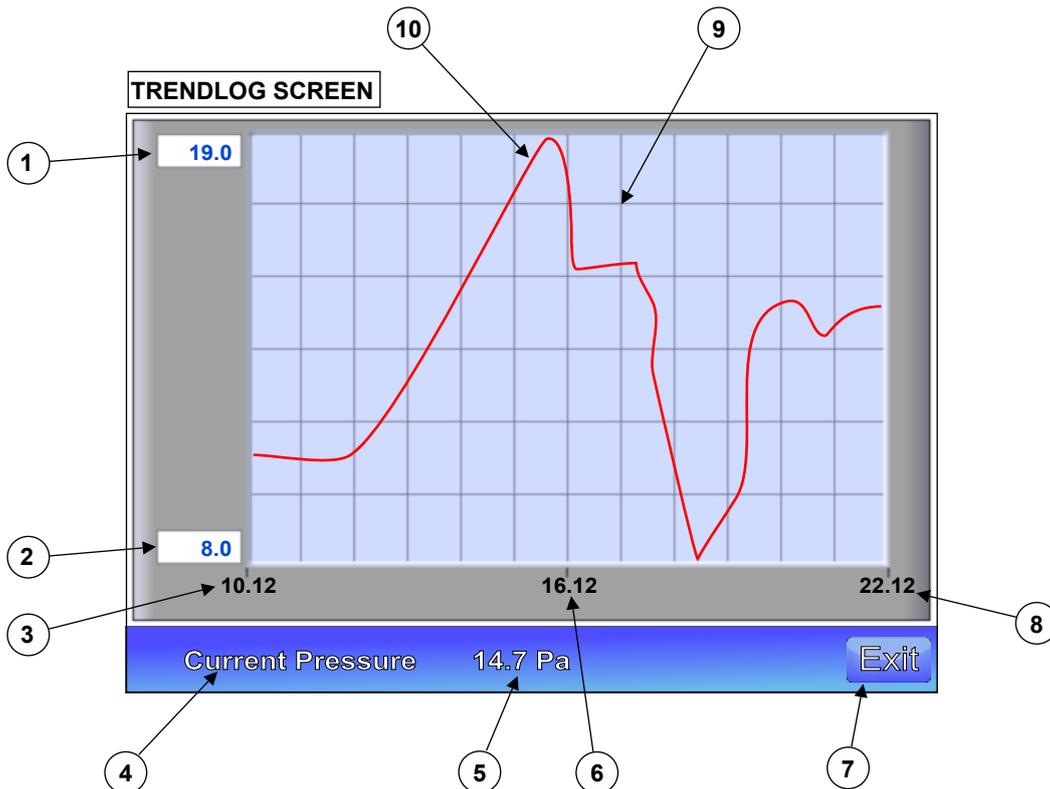
The Event Log screen is used to view historical activity on the Visio-3 and can be a very useful tool in diagnosing potential problems on a system. The operator cannot make any changes to the Event Log but merely view the recorded data.

Step 1
Password
The operator can navigate to the Main Menu when a valid password has been entered here.

Step 2
Main Menu
By pressing the "Event Log" icon the operator can access the Event Log screen to view recent events.

Step 3
Viewing Events
The Event log can store up to a total of 200 entries after which they will then be overwritten. The operator can view the events over 25 pages using the "up" and "down" arrows.

PASSWORD SCREEN
PLEASE ENTER PASSWORD
****
Enter
OPERATOR LEVEL   Exit

Main Menu
MUTE   SNOOZE   EVENT LOG
ENGINEERING   OVERVIEW   MEMO
OPERATOR MENU   Exit

Entry into the Event Log screen will automatically remove the alarm icon on the homepage if the actual alarm condition has cleared.

1	Event Log alarm detail list	5	Record of the time of system power-up
2	Typical "alarm restored" entry	6	Typical "warning" event
3	Typical "alarm" event	7	Indicates the current Event Log page
4	Record of the time of buzzer mute	8	Button to return to Main Menu

EVENT LOG

Level	Variable	Event	Ch	Time	Date
Normal	Pressure	Restored	Ch-1	10.12 AM	21-Apr-2013
Low	Pressure	Alarm	Ch-1	10.10 AM	21-Apr-2013
Low	Pressure	Warning	Ch-1	10.05 AM	21-Apr-2013
High	Temperature	Alarm	Ch-2	09.15 AM	21-Apr-2013
High	Temperature	Warning	Ch-2	08.01 AM	21-Apr-2013
		Mute		18.24 AM	20-Apr-2013
		Reset		18.22 AM	20-Apr-2013
High	Rel.Humidity	Warning	Ch-3	18.00 AM	20-Apr-2013

Page 1
PLEASE USE ARROW BUTTONS TO MOVE BETWEEN EVENT PAGES

EVENT LOG   Exit

The operator can use the Memo Pad to record an event or simply record a message for other operators to view. This feature can also be used for engineers when calibrations are carried out on the associated sensors.

Step 1
Password
The operator can navigate to the Main Menu when a valid password has been entered here.

Step 2
Main Menu
By pressing the "Memo" icon the operator can access the Memo Pad to review or type a note.

Step 3
Typing a new memo
The operator can select a line by pressing the adjacent button. The keyboard screen will appear and the operator can type the new memo.
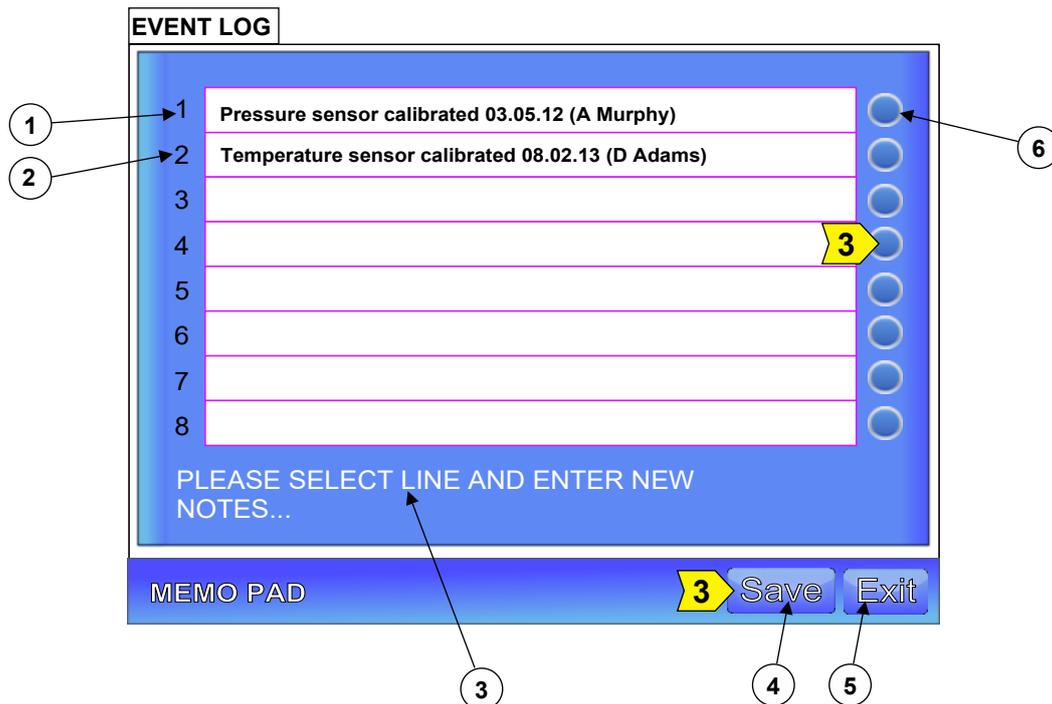
Step 4
Saving & exit
When memo is typed the "Enter" key must be pressed which brings the operator back to the "Memo Pad" screen where they can choose to save and Exit to the "Main Menu".

PASSWORD SCREEN

PLEASE ENTER PASSWORD
1 ****
1 2 3
4 5 6
7 8 9
0
Enter
OPERATOR LEVEL   Exit

Main Menu
MUTE   SNOOZE   EVENT LOG
ENGINEERING   OVERVIEW   **2** MEMO
OPERATOR MENU   Exit

Enter line 1: **3**
! " £ $ % ^ & * ( ) _ + <
1 2 3 4 5 6 7 8 9 0 - =
Q W E R T Y U I O P { } |
[ ] \
A S D F G H J K L ; @ ENTER
Z X C V B N M < > ? SHIFT
SPACE
Exit

The memo Pad screen will timeout after 3 minutes if the operator forgets to exit or declines to make a memo entry.
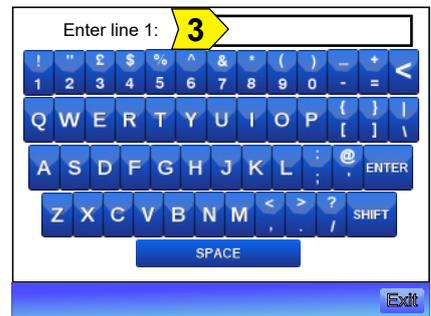
1	Memo description in line 1	4	Message save to memory button
2	Memo description in line 2	5	Button to return to Main Menu
3	Dynamic message to operator	6	Icon to press for Keyboard screen

EVENT LOG

1 Pressure sensor calibrated 03.05.12 (A Murphy) **6**
2 Temperature sensor calibrated 08.02.13 (D Adams)
3
4 **3**
5
6
7
8

PLEASE SELECT LINE AND ENTER NEW NOTES...

MEMO PAD   **3** Save Exit

4 **5**

It is important that the operator understands the alarm features of the Visio-3 because it may compromise the quality of a product or may compromise the health & safety of personnel depending on the Visio-3 application. The alarm handling for a Priority-1 screen is different for that of the Priority 1-2-3 screen and it is for this reason that they will be explained separately.

Temperature Rel-Humidity

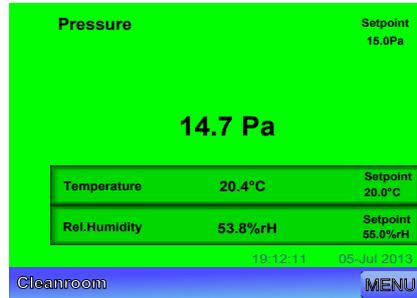These parameters are deemed non-critical in a Priority-1 configured homepage.

The alarm features differ from the Pressure in that the Visio-3 does not display an alarm message screen when in an alarm state.

When either parameter deviates from setpoint by a pre-set amount, the associated bar changes colour from green to amber thus indicating a warning.

The alarm buzzer will activate every 5 mins for 10 secs.

If the parameter deviates further from the setpoint, the bar will change colour from amber to red thus indicating an alarm. The buzzer will remain active until muted or until the alarm condition disappears.

Pressure

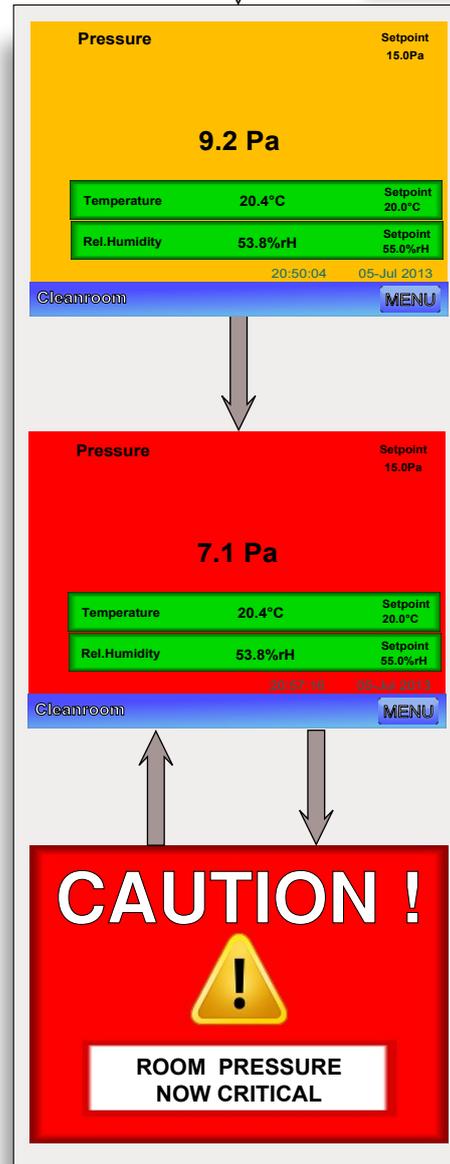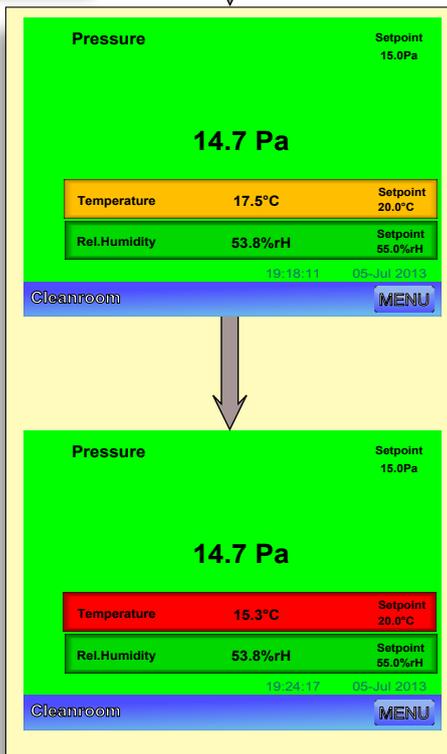This parameter is deemed to be critical in a Priority-1 configured homepage.

The alarm feature displays an alarm message screen when in an alarm state.

When the Pressure deviates from setpoint by a pre-set amount, the homepage changes colour from green to amber thus indicating a warning.

The alarm buzzer will activate every 5 mins for 10 secs.

If the Pressure deviates further from the setpoint, the homepage will change colour from amber to red thus indicating an alarm. After a 7 sec delay the alarm message screen will appear, remain for 14 secs and subsequently alternate with the homepage for as long as the alarm condition exists.

The buzzer will remain activated until muted or until the alarm condition disappears.

Priority-1 Screen Alarm Handling

The Rel-Humidity will alarm in a similar way to the temperature with the exception of the buzzer tone. The alarm buzzer for each of the parameters differ which enables the operator to identify the alarm type without having visual contact with the Visio-3.

CAUTION !

ROOM PRESSURE NOW CRITICAL

Pressure
Temperature
Rel-Humidity

All 3 parameters are deemed critical in a Priority-1-2-3 configured homepage.

The alarm feature displays an alarm message screen when any of the parameters are in an alarm state. The example here shows what happens when the Temperature deviates from setpoint.

When the Temperature deviates from setpoint by a pre-set amount, the bar changes colour from green to amber thus indicating a warning.

The alarm buzzer will activate every 5 mins for 10 secs.

If the Temperature deviates further from the setpoint, the bar will change colour from amber to red thus indicating an alarm. After a 7 sec delay the alarm message screen will appear and subsequently alternate with the homepage for as long as the alarm condition exists.

The buzzer will remain activated until muted or until the alarm condition disappears.

The programmed alarm message will appear if any one of the three parameters go into an alarm state.

Priority-1-2-3 Screen Alarm Handling

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	Setpoint 20.0°C
20.4°C	
Rel.Humidity	Setpoint 55.0%rH
53.8%rH	
Cleanroom 1 19:12:11 05-Jul 2013 MENU	

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	Setpoint 20.0°C
17.5°C	
Rel.Humidity	Setpoint 55.0%rH
53.8%rH	
Cleanroom 1 19:32:51 05-Jul 2013 MENU	

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	Setpoint 20.0°C
16.2°C	
Rel.Humidity	Setpoint 55.0%rH
53.8%rH	
Cleanroom 1 19:41:02 05-Jul 2013 MENU	

CAUTION !

⚠️

**ROOM CONDITIONS
OUT OF LIMITS**

Responding to Alarm Events

When the Visio-3 goes into an alarm state the message screen will be alternating with the homepage and the buzzer may be activated depending on the programmed time delays. This section of the Operators Guide details the recommended response for the operator

Step 1

Accessing the Main Menu

The operator can access the Main Menu by pressing the Menu button on the Alarmed-Homepage. This will navigate the operator to the Password screen shown here.

Step 2

Entering a Password

The operator can now enter their password (4 digits) and press enter. If the correct password is entered, the Main Menu screen will appear. If an incorrect password is used, the operator will be navigated back to the Homepage.

Step 3

Silence Buzzer

The operator can choose to mute the buzzer for 20 mins or just snooze the buzzer for a shorter time (typically 5 mins).

Step 4

Viewing Event Log

The operator can view the alarm events in the Event Log and determine the time that the alarm started and the frequency of the alarm.

Step 5

System Overview

The operator can access the System Overview screen by pressing the relevant icon. This screen is gives an overview of all 3 channels.

PRIORITY-1 SCREEN

Pressure		Setpoint 15.0Pa
	7.1 Pa	
Temperature	20.4°C	Setpoint 20.0°C
Rel.Humidity	53.8%rH	Setpoint 55.0%rH

Cleanroom

PRIORITY-1-2-3 SCREEN

Pressure	Setpoint 15.0Pa
14.7 Pa	
Temperature	Setpoint 20.0°C
16.2°C	
Rel.Humidity	Setpoint 55.0%rH
53.8%rH	

Cleanroom 1   19:41:02   05-Jul 2013   MENU

OPERATOR PASSWORD

PLEASE ENTER PASSWORD

1	2	3
4	5	6
7	8	9
	0	

← Enter

OPERATOR LEVEL   Exit

MAIN MENU

MUTE   SNOOZE   EVENT LOG

ENGINEERING   OVERVIEW   MEMO

OPERATOR MENU   Exit

SYSTEM OVERVIEW

	Pressure		Temperature		Rel.Humidity	
	Pa	100%	°C	100%	%rH	100%
S	15.0		20.0		55.0	
A	12.7		19.1		59.4	
O	68.3		80.5		15.5	

S=Setpoint, A=Actual, O=Output   Host 0.1 E28   GUI: 17.00.03

SYSTEM OVERVIEW   Exit

EVENT LOG

Level	Variable	Event	Ch	Time	Date
Normal	Pressure	Restored	Ch-1	10.12 AM	21-Apr-2013
Low	Pressure	Alarm	Ch-1	10.10 AM	21-Apr-2013
Low	Pressure	Warning	Ch-1	10.05 AM	21-Apr-2013
High	Temperature	Alarm	Ch-2	09.15 AM	21-Apr-2013
High	Temperature	Warning	Ch-2	08.01 AM	21-Apr-2013
		Mute		18.24 AM	20-Apr-2013
High	Rel.Humidity	Alarm	Ch-3	18.22 AM	20-Apr-2013
High	Rel.Humidity	Warning	Ch-3	18.00 AM	20-Apr-2013

Page 1

PLEASE USE ARROW BUTTONS TO MOVE BETWEEN EVENT PAGES

EVENT LOG   Exit