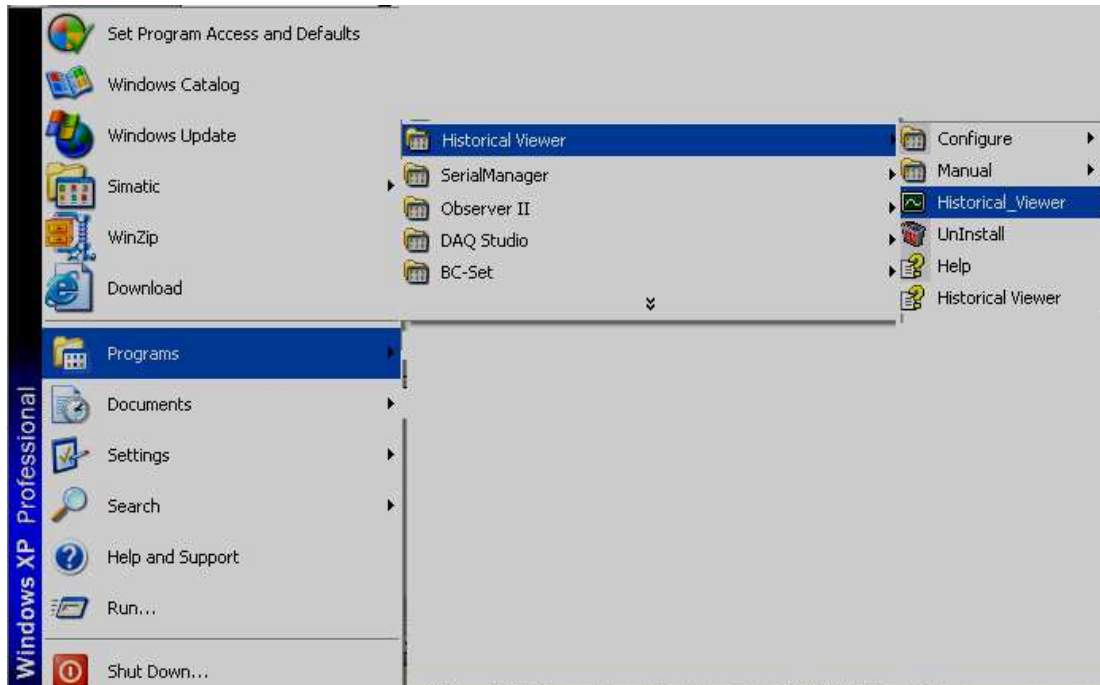


## 6. Historical Viewer

---

It is a PC based tool to view historical data and historical alarms from HMI & Paperless Recorder.

If you select “Historical viewer” during installation of DAQ software or HMI software, then, historical viewer installed in PC and it can be opened as shown below



By default, historical data from devices after import will be stored at path C:\Program files\Historical viewer\Historical\Project.daq

### 6.1 Human machine interface (HMI)

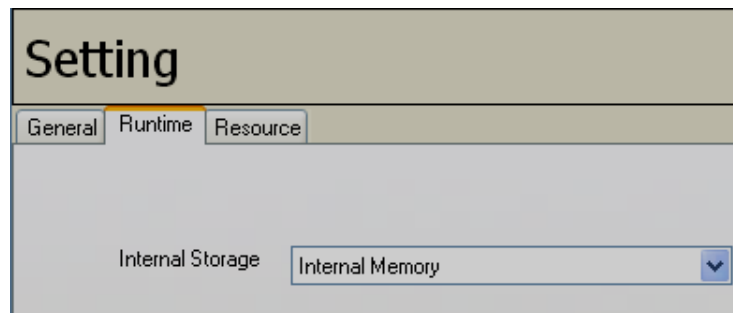
#### 6.1.1 Preparation of historical data storage in HMI

Procedure

1. Configure data logging, insert historical trend object in HMI, complete configuration of pens, download application to HMI and make sure historical data is showing properly in historical trend at run time.
2. Configure alarms, insert historical alarm box in HMI, download application to HMI and check historical alarms. If required, refresh alarms in Run time using Button linked with

“Update Historical” function and make sure historical alarms showing properly in historical alarm box in Run time

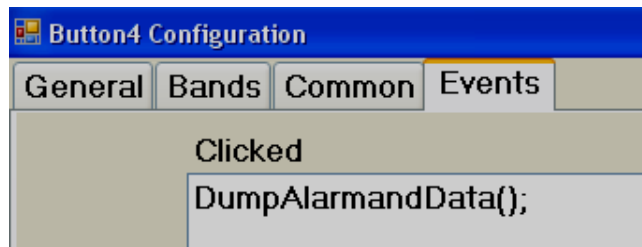
3. Historical data and alarms are stored in internal memory/SD card as per data storage path defined at Project explorer-Setting-Runtime-Internal storage
4. Once data logging is configured in HMI, in Run time, historical data will be stored in HMI internal memory or SD card as per configuration. Once alarms are configured properly in HMI and they appear in run time, historical alarms will be stored in HMI internal memory or SD card as per configuration. These historical alarms and historical data can be archived in PC later using historical viewer software.



5. Historical data and alarms can be dumped from Internal memory/SD card to USB stick or directly transfer from HMI to PC via Ethernet using Historical viewer software.

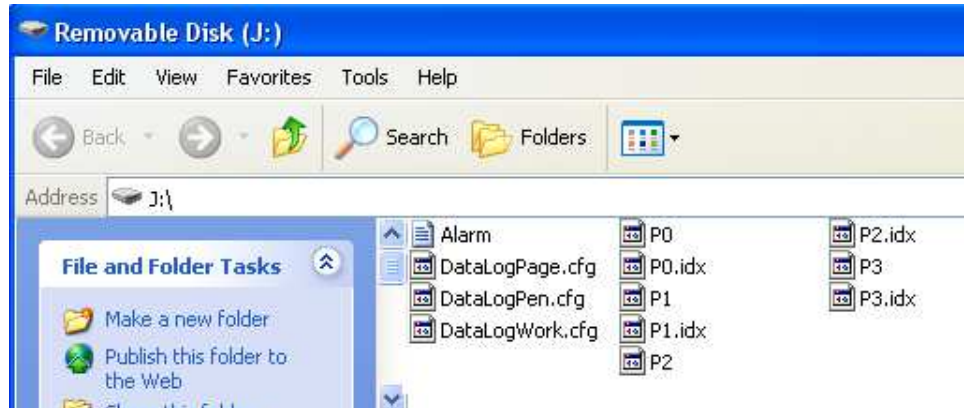
### 6.1.2 HMI data archive in PC using storage device (USB stick)


1. First make sure data logging and historical trend is configured properly in HMI and they are running fine in Run time. Create a button in HMI screen. Link with a function – “Dump Alarms and Data”

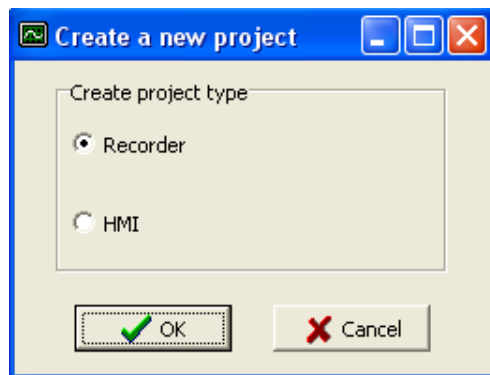


2. Check contents in USB stick. Make sure it is empty at first time and no invalid files are available in USB stick.
3. Insert USB stick in USB port of HMI

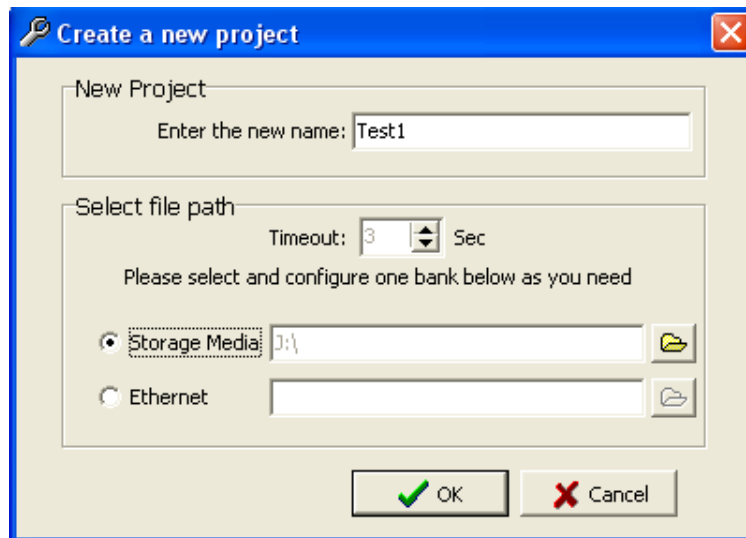
4. In Run time, check if historical data is showing properly or not in historical trend. If required, press “Zoom” and verify the presence of data.
5. Press on “Dump” button. Then, it transfers historical data and alarms from Internal memory/SD card to USB stick
6. Now, remove USB stick from HMI. Insert USB stick in PC and check its contents. It should have files similar to the following



7. Make sure Historical viewer software installed in PC. Double click on “Historical viewer” icon  available at desktop




8. Select HMI and click “OK”




**Create a new project**

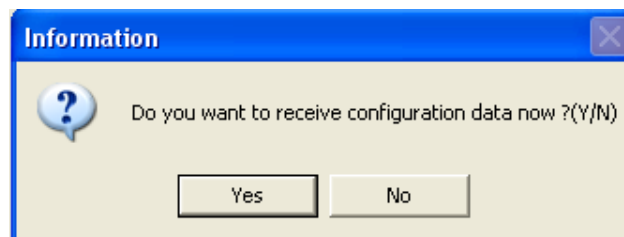
New Project  
Enter the new name:

Select file path  
Timeout:  Sec  
Please select and configure one bank below as you need


☒ Storage Media:  

☐ Ethernet:  

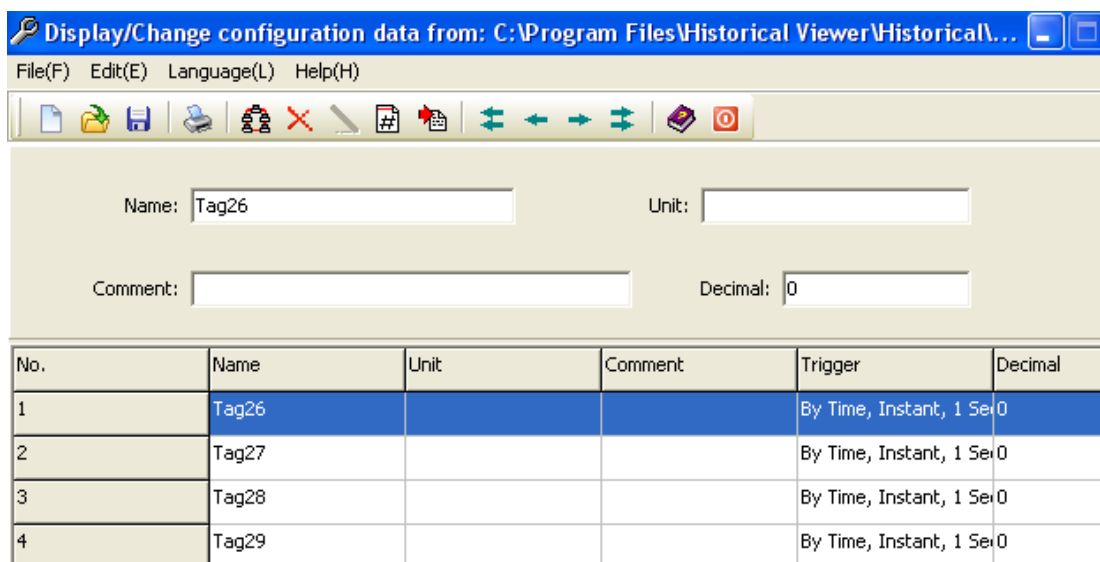
9. Enter the Project name. Select “Storage media”, click at open folder icon  and select the path for the USB stick. Then, click “OK”



**Information**

 Do you want to receive configuration data now?(Y/N)

10. Click “Yes”.



**Display/Change configuration data from: C:\Program Files\Historical Viewer\Historical\...**



File(F) Edit(E) Language(L) Help(H)

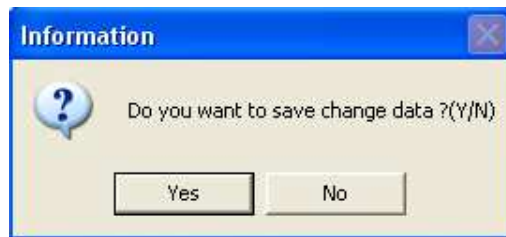
Name:  Unit:

Comment:  Decimal:

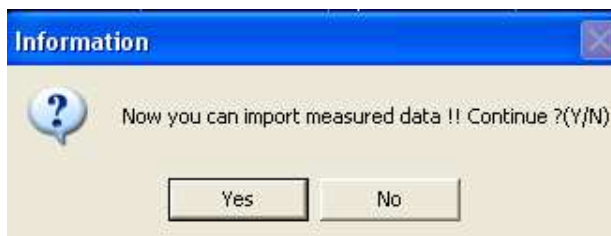
No.	Name	Unit	Comment	Trigger	Decimal
1	Tag26			By Time, Instant, 1 Sec	0
2	Tag27			By Time, Instant, 1 Sec	0
3	Tag28			By Time, Instant, 1 Sec	0
4	Tag29			By Time, Instant, 1 Sec	0

11. All data log tags will be shown here. Enter the unit and select the number of decimal points

12. Click “Save” icon . Then, click Return icon  to return to main program



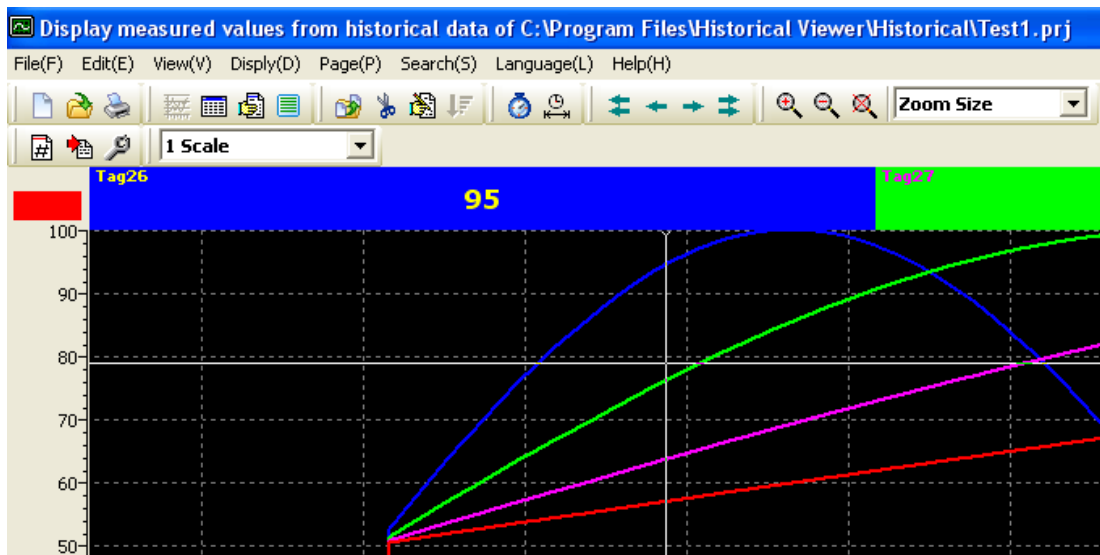
13. Click “Yes” to save project configuration in PC



14. Click “Yes” to import historical data and alarms from USB stick to PC



15. Click “Yes” to delete data and alarms from USB stick. Click “No”, if you wishes to remain historical data and alarms in USB stick after transferring to PC

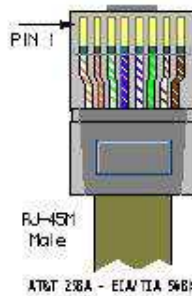


16. Now, you can view historical data trend in PC

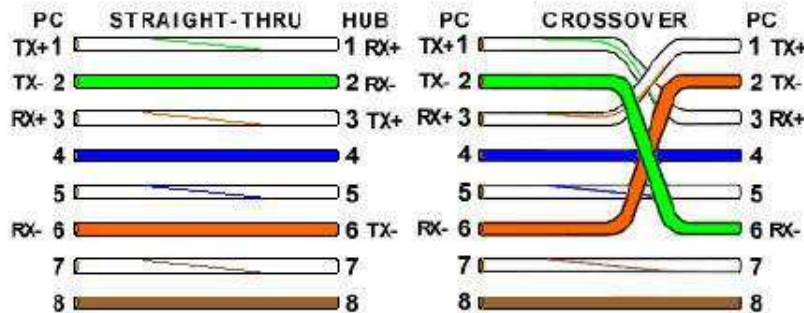
### 6.1.3 HMI data archive in PC via Ethernet

1. First make sure data logging and historical trend is configured properly in HMI and they are running fine in Run time.
2. In Run time, check if historical data is showing properly or not in historical trend. If required, press "Zoom" and verify the presence of data.
3. Check IP address of HMI using System information at Control centre at HMI startup. For example, it is 192.168.0.203
4. If HMI is connected to PC directly, then, use cross over Ethernet cable. If HMI is connected to PC via LAN, then, use straight cable

Straight Through Cable VR18-LAN/HUB	
RJ-45 PIN	RJ-45 PIN
1 Tx+	1 Rc+
2 Tx-	2 Rc-
3 Rc+	3 Tx+
6 Rc-	6 Tx-



Crossover Cable VR18-PC/Notebook	
RJ-45 PIN	RJ-45 PIN
1 Rx+	3 Tx+
2 Rc-	6 Tx-
3 Tx+	1 Rc+
6 Tx-	2 Rc-



- At Dos prompt, using “Ping” instruction, check if communication is OK between HMI and PC. If it is OK, then, you should get reply as follows. If there is no reply, then, check Ethernet cable and IP address of HMI

```

C:\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\mahi.MAHIDHAR>Ping 192.168.0.203


Pinging 192.168.0.203 with 32 bytes of data:

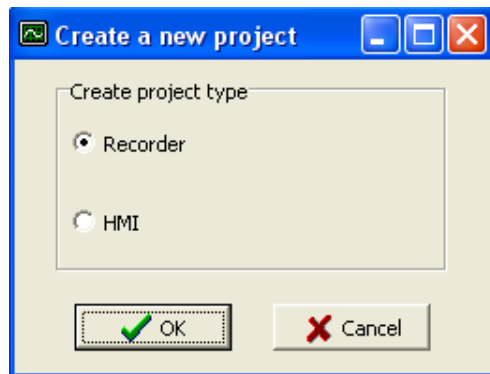
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.203:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

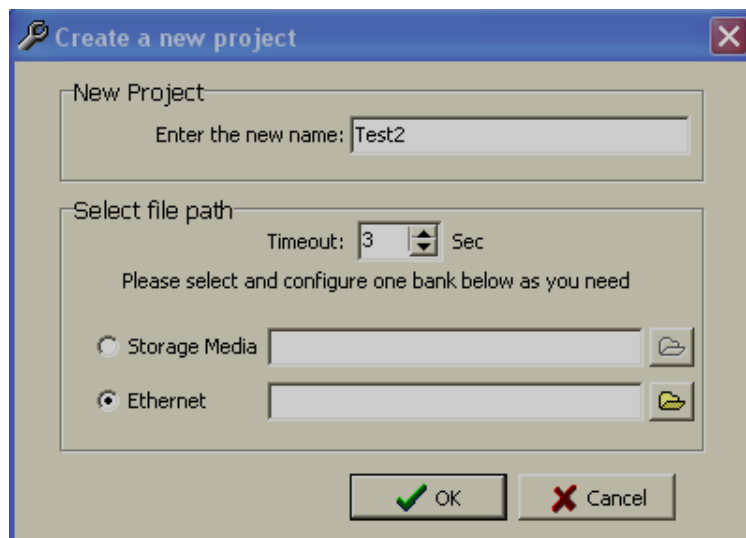
C:\Documents and Settings\mahi.MAHIDHAR>


```

- Make sure Historical viewer software installed in PC. Double click on “Historical viewer” icon  available at desktop

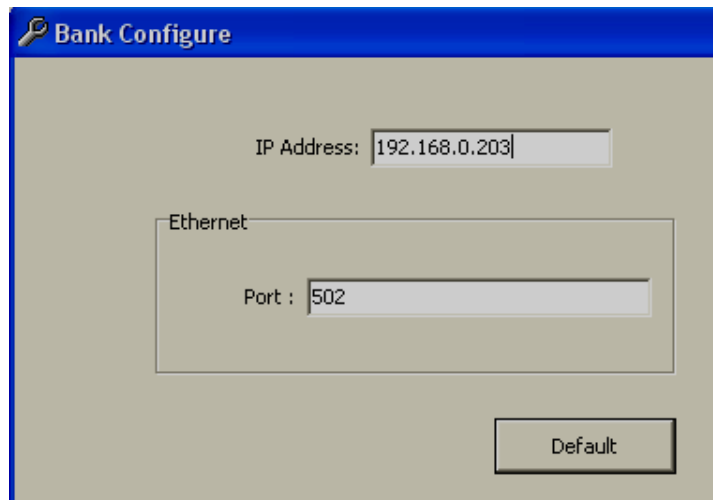


7. Select HMI and click "OK"

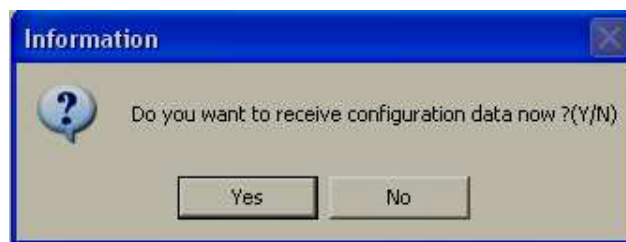


8. Enter the Project name. Select "Ethernet", click at open folder icon  and Enter IP address of HMI. Then, click "OK"



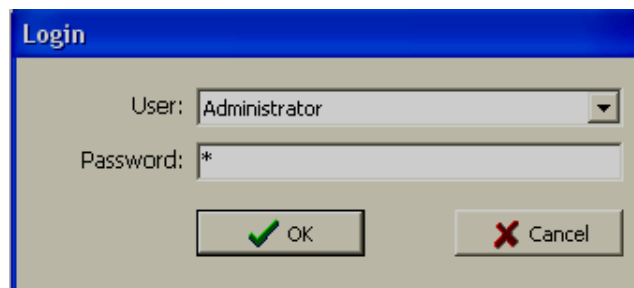


The "Bank Configure" dialog box has a blue title bar with a key icon. It contains two text input fields: "IP Address:" with the value "192.168.0.203" and "Port:" with the value "502". The "Port:" field is enclosed in a box labeled "Ethernet". A "Default" button is located at the bottom right.



The "Information" dialog box has a blue title bar with a question mark icon. It contains a text label "Do you want to receive configuration data now?(Y/N)" and two buttons: "Yes" and "No".

9. Click "Yes".
10. If security level is configured for historical viewer, then, it needs to enter user name and password



The "Login" dialog box has a blue title bar. It contains two text input fields: "User:" with the value "Administrator" and "Password:" with the value "\*". There are two buttons at the bottom: "OK" with a green checkmark icon and "Cancel" with a red X icon.



Display/Change configuration data from: C:\Program Files\Historical Viewer\Historical\...

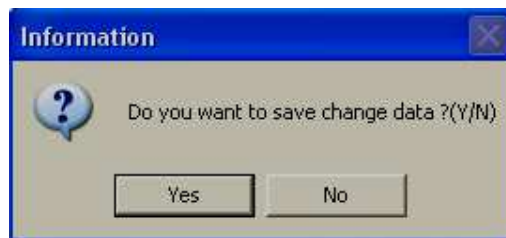
File(F) Edit(E) Language(L) Help(H)

Name: Tag26 Unit:

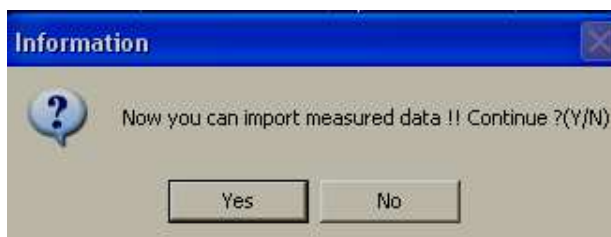
Comment: Decimal: 0

No.	Name	Unit	Comment	Trigger	Decimal
1	Tag26			By Time, Instant, 1 Sec	0
2	Tag27			By Time, Instant, 1 Sec	0
3	Tag28			By Time, Instant, 1 Sec	0
4	Tag29			By Time, Instant, 1 Sec	0

11. All data log tags will be shown here. Enter the unit and select the number of decimal points
12. Click "Save" icon . Then, click Return icon  to return to main program



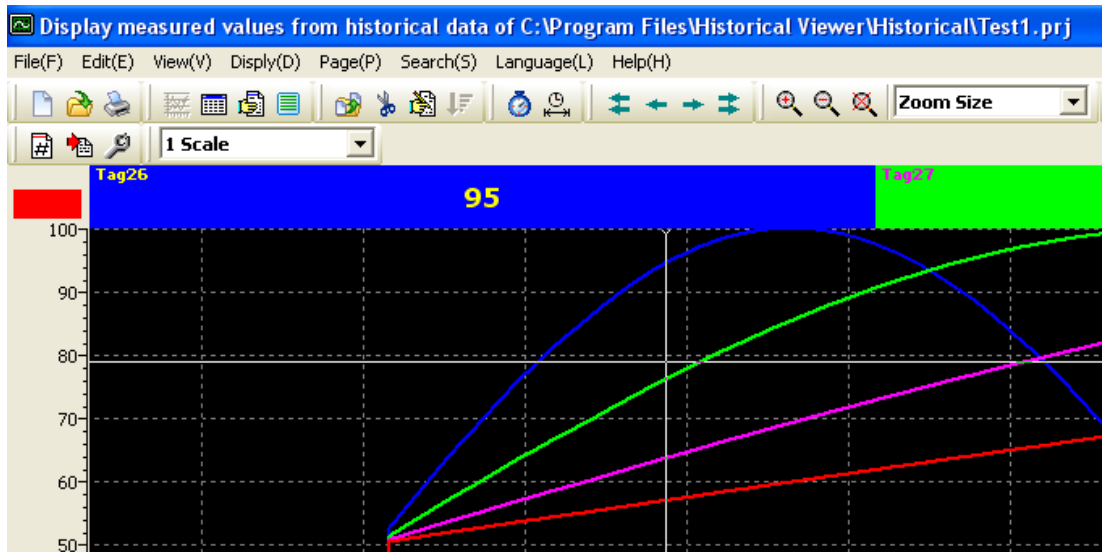
13. Click "Yes" to save project configuration in PC



14. Click "Yes" to import historical data and alarms from USB stick to PC



15. Click "Yes" to delete data and alarms from USB stick. Click "No", if you wishes to remain historical data and alarms in USB stick after transferring to PC



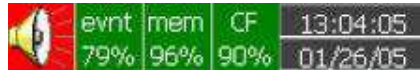
16. Now, you can view historical data trend in PC
17. If security is configured for Historical viewer, then, after seeing the data, if you wishes to close the historical viewer or log out, then, it prompts to digitally sign the record by entering user name and password. Then only, it is possible to exit from historical viewer

A "Signature" dialog box with a blue title bar and a close button. It contains four input fields: "User:" with a dropdown menu showing "Administrator", "Password:" with a text box containing asterisks, "Status:" with a dropdown menu showing "Pass", and "Comment:" with a large text area. At the bottom are two buttons: "OK" with a green checkmark icon and "Cancel" with a red X icon.

## 6.2 Paperless Recorder

### 6.2.1 Paperless data archive in PC using storage device (CF card)

1. Check contents in CF card. Make sure it is empty at first time and no invalid files are available in CF card.
2. Insert CF card in Paperless Recorder. Check icons on Top Right side of the Recorder. CF should show 99% empty. If CF card is not inserted properly, then, it shows with Red color mark on CF icon



3. First time, press on “Config” key. Then, press on “Save” key.

It display message “Do you want to save configuration o storage media?”

Press “Yes” key. Then press “Back” key to return to main menu

Now, if you check contents in CF card, you should have the following files



These two files are important to create a new project in PC.

Note: If you wish to send us configuration files to check your configuration, you need to send these two files back to factory

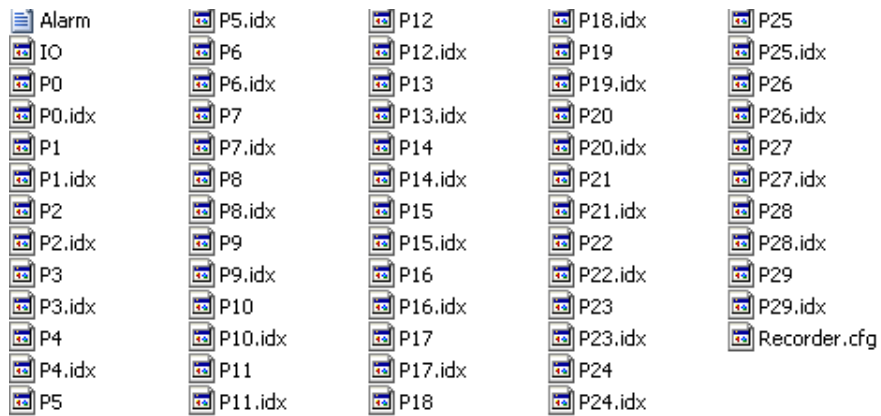
4. In Recorder, Press on “Dump” button.


Do you want to dump historical data and event list to storage media?

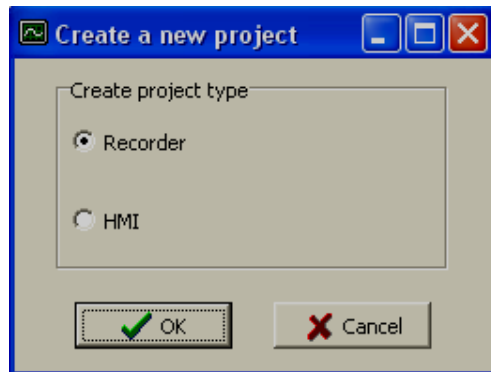
Press on “Yes” key

Then, it transfers historical data and alarms from internal memory to CF card

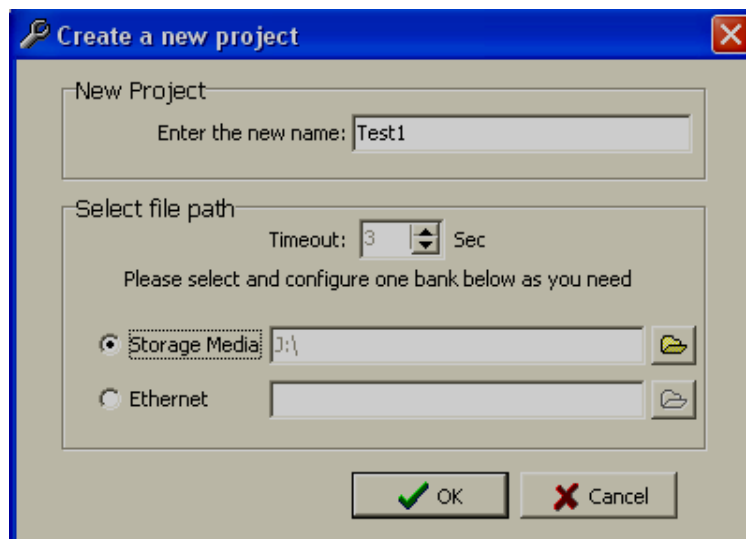
5. Now, remove CF card from Paperless Recorder. Insert CF card in a CF reader, plug in to PC and check its contents. It should have files similar to the following




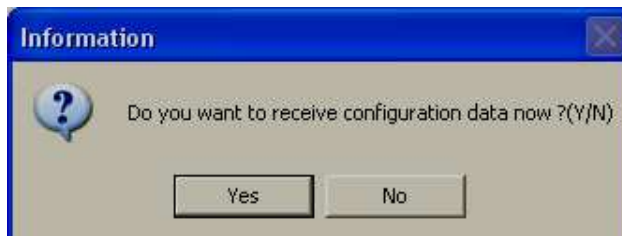
6. Make sure DAQ or Historical viewer software installed in PC. Double click on “Historical viewer” icon  available at desktop




7. Select Recorder and click “OK”



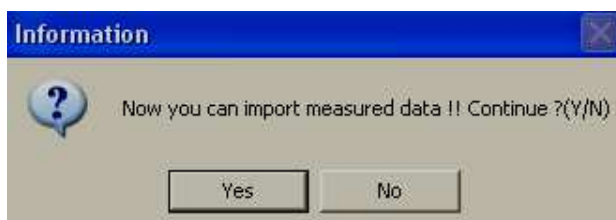
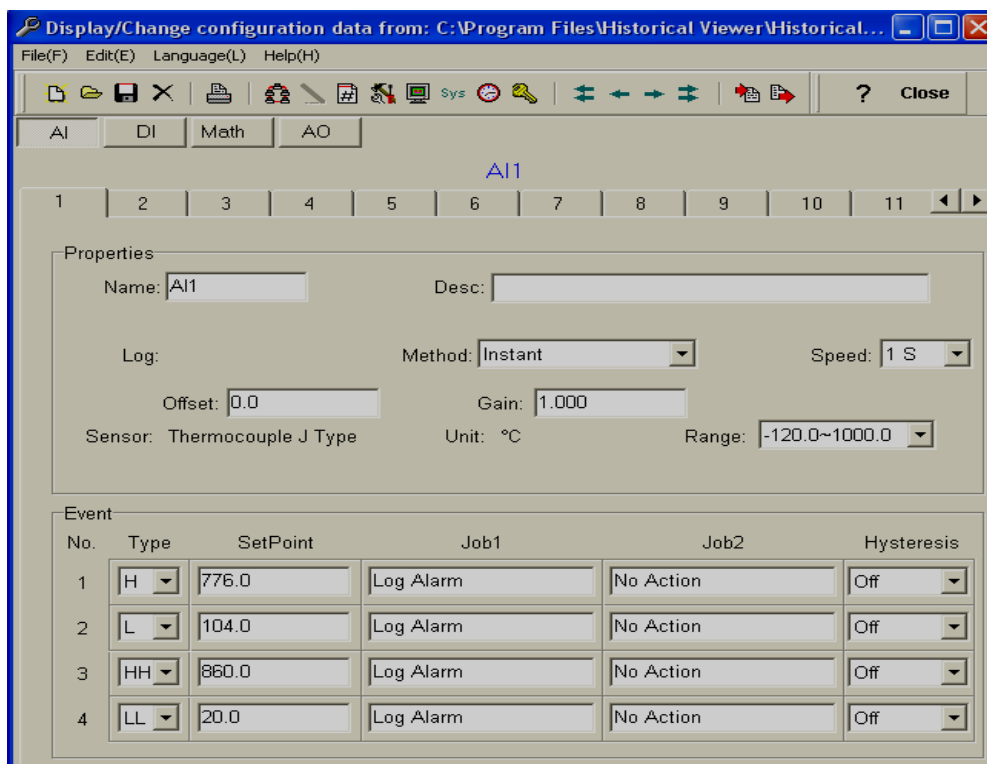
8. Enter the Project name. Select “Storage media”, click at open folder icon  and select the path for the CF card. Then, click “OK”



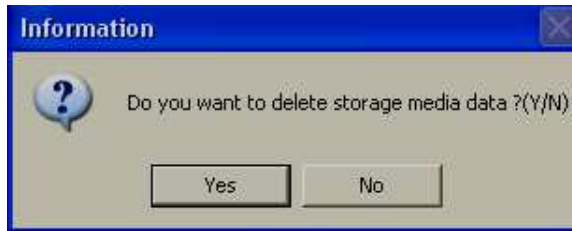
Click “Yes” to receive configuration from CF card to PC. Then, click “Save” icon  to save configuration in PC. Then, click “Close”



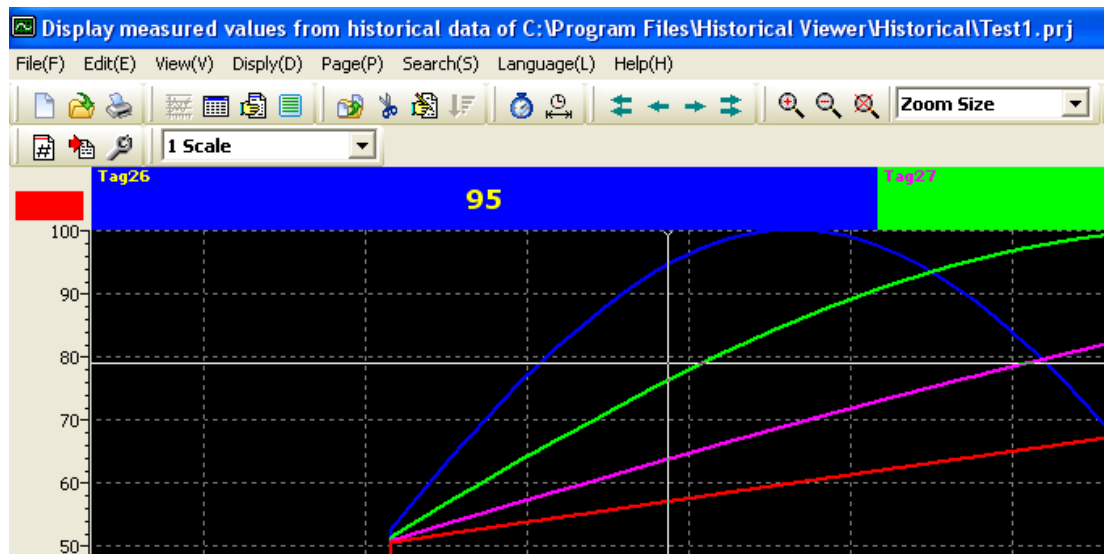
If IO.dat and Recorder.cfg files are not available in CF card, then, you cannot complete this step



- Click “Yes” to import historical data from CF card to PC



- Click “Yes” to delete historical data and alarms from CF card. Click “No”, if you wishes to remain historical data and alarms in CF card after transferring to PC

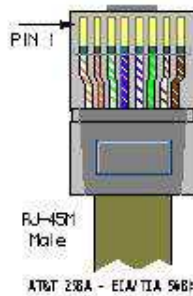


- Now, you can view historical data trend in PC

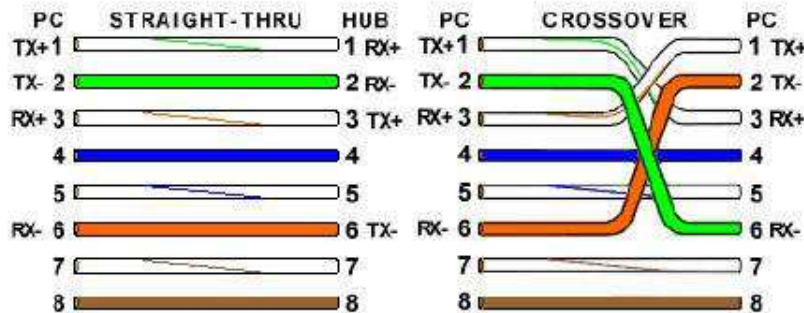
## 6.2.2 Paperless data archive in PC via Ethernet

- Check IP address of Paperless Recorder. Press “Config” key, select “System info”, press “Enter” key. Note down IP address of Recorder. For example, it is 192.168.0.203
- If Paperless Recorder connected to PC directly, then, use cross over Ethernet cable. If Paperless Recorder connected to PC via LAN, then, use straight cable

Straight Through Cable VR18-LAN/HUB	
RJ-45 PIN	RJ-45 PIN
1 Tx+	1 Rc+
2 Tx-	2 Rc-
3 Rc+	3 Tx+
6 Rc-	6 Tx-



Crossover Cable VR18-PC/Notebook	
RJ-45 PIN	RJ-45 PIN
1 Rx+	3 Tx+
2 Rc-	6 Tx-
3 Tx+	1 Rc+
6 Tx-	2 Rc-



- At Dos prompt, using “Ping” instruction, check if communication is OK between Paperless Recorder and PC. If it is OK, then, you should get reply as follows. If there is no reply, then, check Ethernet cable and IP address of Paperless Recorder

```

C:\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\mahi.MAHIDHAR>Ping 192.168.0.203


Pinging 192.168.0.203 with 32 bytes of data:

Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128
Reply from 192.168.0.203: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.203:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\mahi.MAHIDHAR>

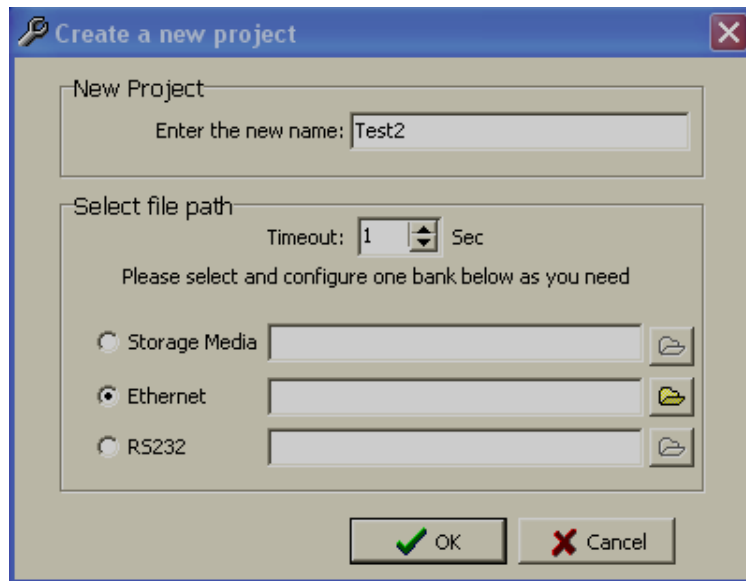
```


- Make sure DAQ/Historical viewer software installed in PC. Double click on “Historical viewer” icon  available at desktop. Alternatively, click at Start-Programs-Historical viewer

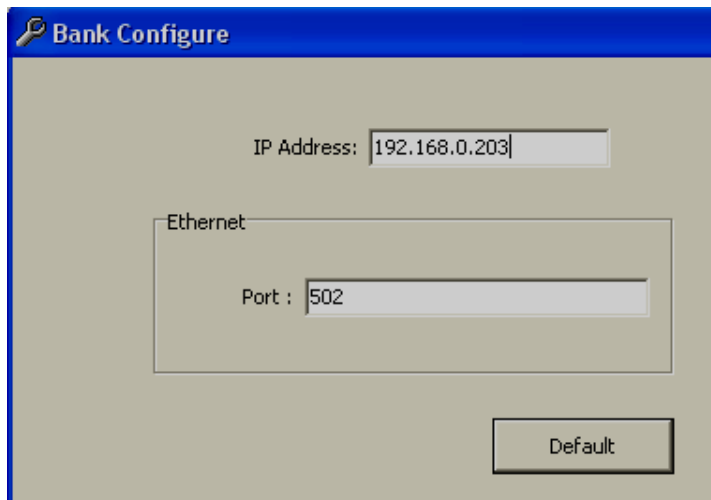




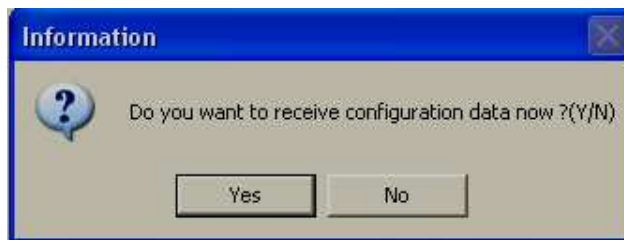
5. Select Recorder and click "OK"



6. Enter the Project name. Select "Ethernet", click at open folder icon  and Enter IP address of Paperless Recorder. Then, click "OK"

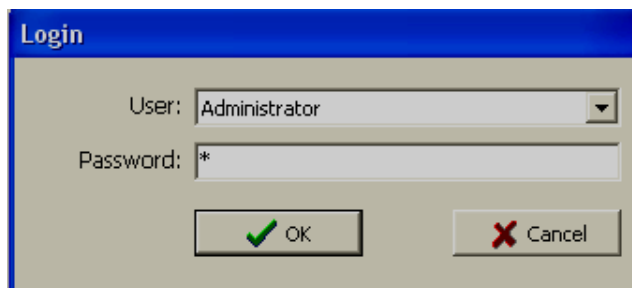


The 'Bank Configure' dialog box has a blue title bar with a key icon. It contains two text input fields: 'IP Address' with the value '192.168.0.203' and 'Port' with the value '502'. The 'Port' field is enclosed in a box labeled 'Ethernet'. A 'Default' button is located at the bottom right.



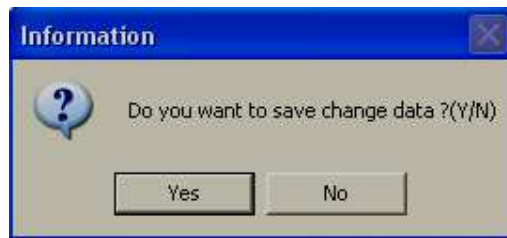
The 'Information' dialog box has a blue title bar with a question mark icon. It contains the text 'Do you want to receive configuration data now?(Y/N)' and two buttons: 'Yes' and 'No'.

7. Click “Yes” to receive configuration from Recorder to PC
8. If CFR21 is selected in Paperless Recorder, then, it needs to enter user name and password

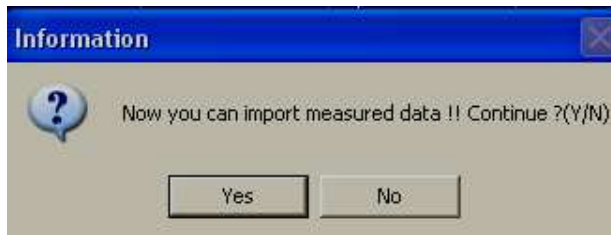


The 'Login' dialog box has a blue title bar. It contains two text input fields: 'User' with the value 'Administrator' and 'Password' with the value '\*'. There are two buttons at the bottom: 'OK' with a green checkmark icon and 'Cancel' with a red X icon.

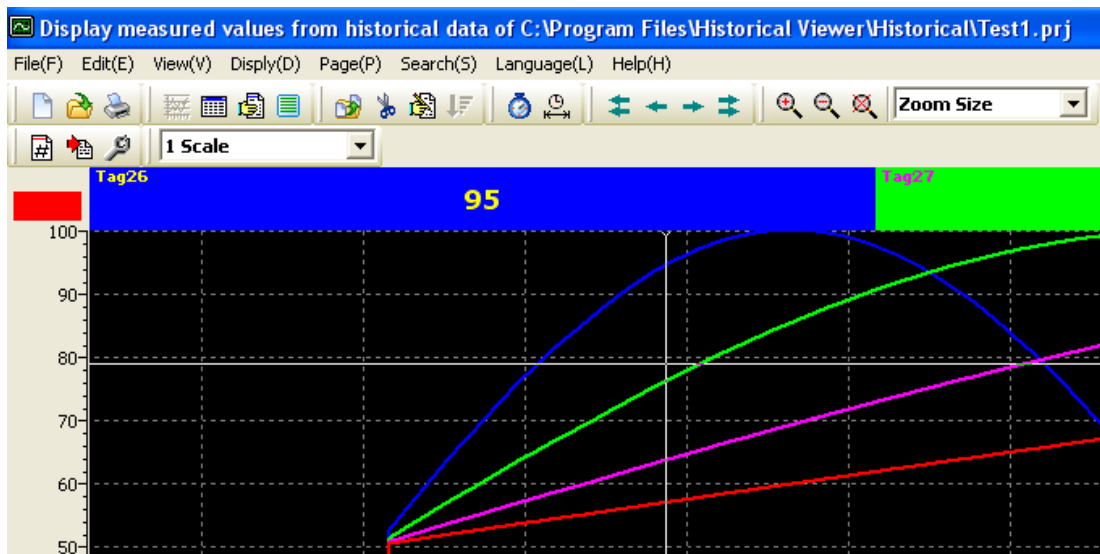
9. Click “OK” to receive configuration from Recorder to PC. Then, click “Save” icon  to save configuration in PC. Then, click “Close”



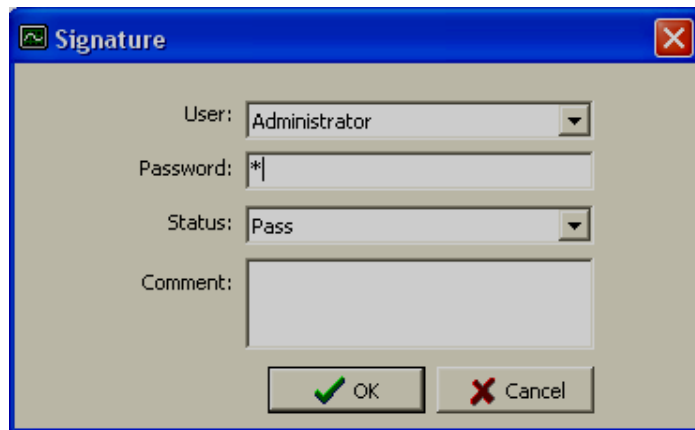
10. Click "Yes" to save project configuration in PC



11. Click "Yes" to import historical data and alarms from Recorder to PC















12. Now, you can view historical data trend in PC
13. If CFR21 is configured in Paperless Recorder, then, after seeing the data, if you wishes to close the historical viewer or log out, then, it prompts to digitally sign the record by entering user name and password. Then only, it is possible to exit from historical viewer


















## 6.3 Tools

### 6.3.1 Tool Bar

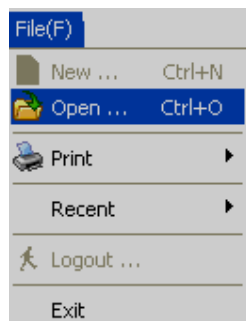


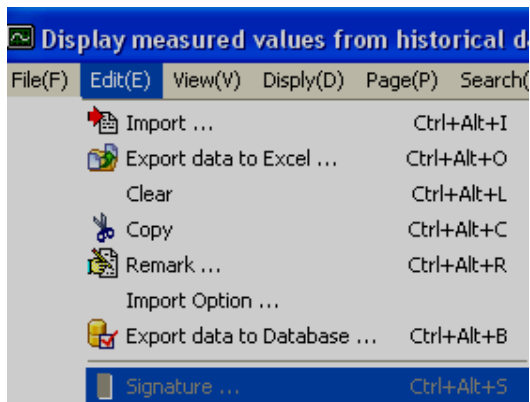
-  To open new project
-  To open existing project file
-  Print
-  Display trend
-  Display Events and alarm list
-  Display Report
-  Display values list
-  Export data into excel
-  Copy curves to clipboard
-  Remark, write a comment
-  Search by specific time
-  Search by a period of time

-  Fast back ward for data monitoring
-  Backward
-  Forward
-  Fast forward
-  Zoom out
-  Zoom in
-  Zoom all
-  Zoom by time
-  Zoom by value
-  Navigate to next page
-  Close historical viewer and return to Main program
-  Black background
-  White background
-  Show graphical representation horizontally
-  Show graphical representation vertically

### 6.3.2 Menu Bar

File(F) Edit(E) View(V) Disply(D) Page(P) Search(S) Language(L) Help(H)





**Import:** Import historical data from device to PC

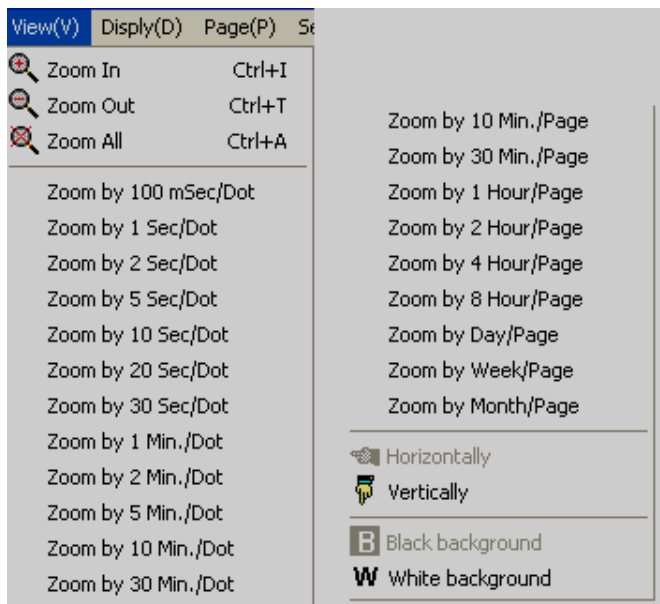
**Export data to Excel:** To export data to excel

**Clear:** To clear the clipboard

**Copy:** To copy the current screen image to clipboard.

**Remark:** To enter custom comments by user

**Import Option:** To refresh historical data as per set time interval



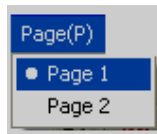
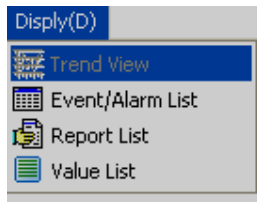
**Zoom:** Various options available for selection as shown above

**Horizontally:** To view historical trend horizontally in screen

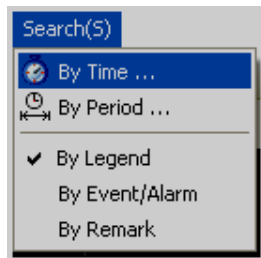
**Vertically:** To view historical trend vertically in screen

**Black background:** To set black back ground for historical trend

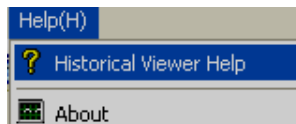
**White background:** To set white background for historical trend



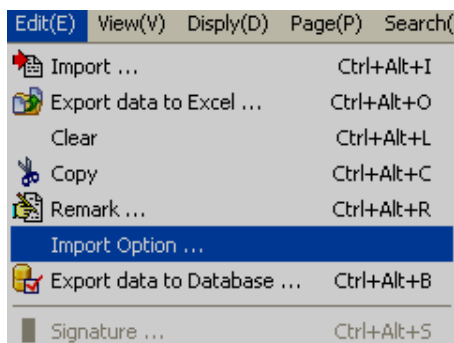
**Page:** To select the page

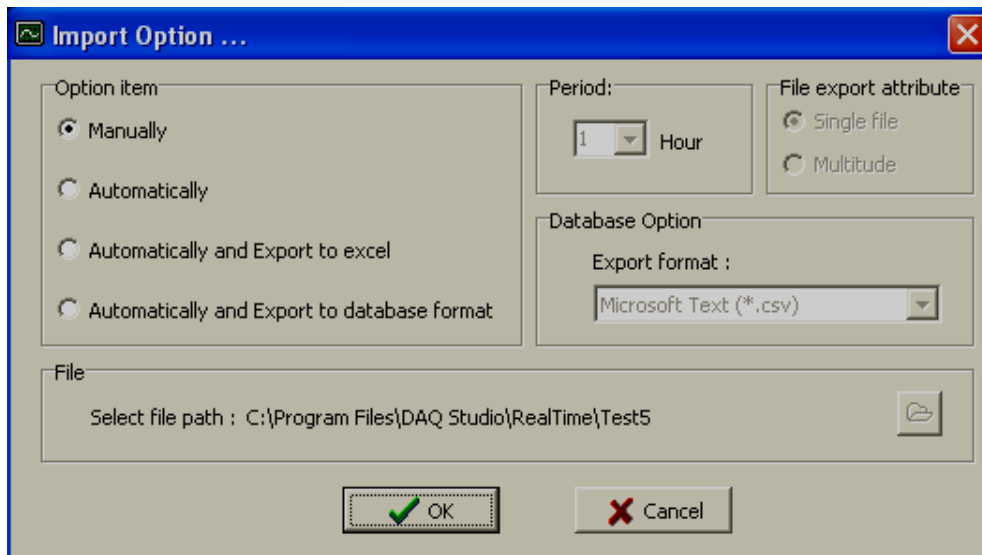


**Search:** To search historical data by various options




## 6.4 Import and export options





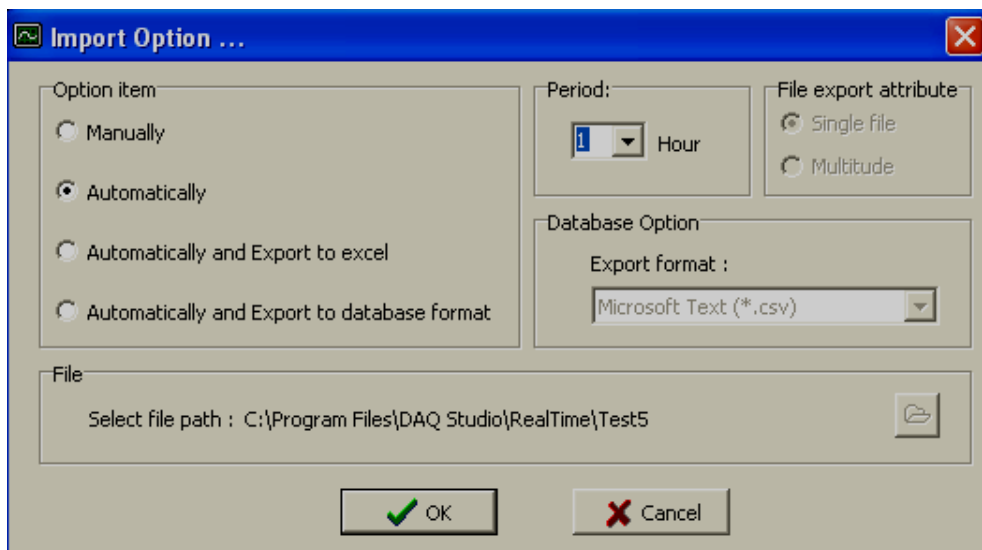
#### 6.4.1 Manually

This is default selection. It is used to import historical data and alarms manually from device to PC. This function is same as click at icon 

Data will be imported from devices like Recorder, HMI etc. to PC and update proprietary database. All database format is proprietary for data security reasons

#### 6.4.2 Automatically

Select this option and select period between 1 to 24 hrs. to automatically import historical data and alarms from device to PC. Automatic works only when device is connected to PC via Ethernet

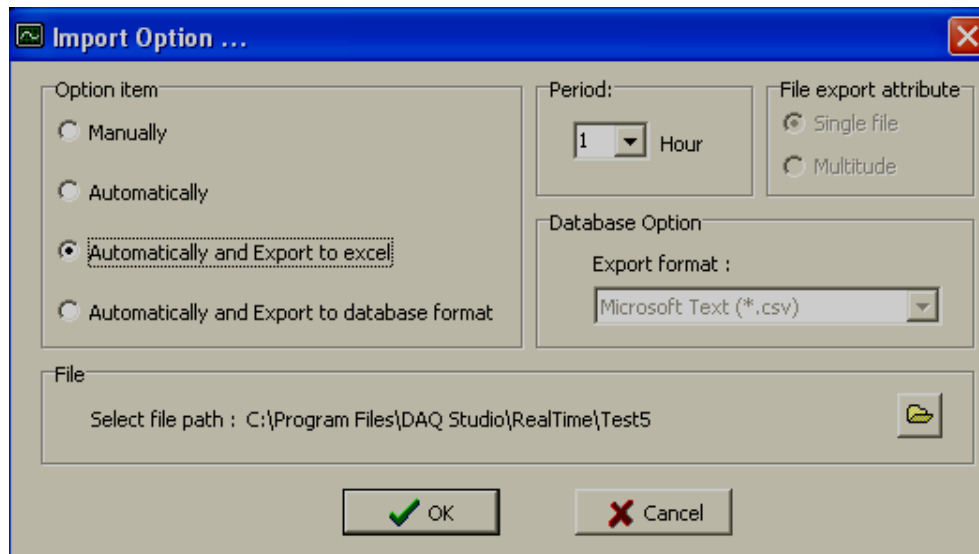




For ex: If this option is selected, then, data will be imported automatically from devices like Recorder, HMI etc. to PC and update proprietary database. All database format is proprietary for data security reasons

### 6.4.3 Automatically and export to Excel

Select this option if you wish to import historical data and alarms from device to PC and export to CSV files automatically with preset time interval from 1 to 24 hrs. Remember, the new export will overwrite earlier Excel files. This feature will be useful if you wish to import historical data to other databases. It is required to develop custom applications in third party software to import data from these files and then clear these files if possible.



### 6.4.4 Automatically and export to database format

Select this option if you wish to import historical data and alarms from device to PC and export to selected format automatically with preset time interval from 1 to 24 hrs. Remember, the new export will overwrite earlier files.

#### ***File export attributes***

#### ***Single file for tags***

Each Tag will have one dedicated file.

#### ***Multitude***

If this option is selected, then, a folder will be created for each 24 hrs and each Tag will have one dedicated file. Ex: Folder name: 201129, year 2011, month = 2, date = 9

## 6.5 Export data

### 6.5.1 Export data to Excel

It is to export historical data to Excel files in selected path manually

In this case, all the tags will be located in same file(s). For example, if you have 2 tags in the project, all tags will appear in different columns in Excel file as shown below. Two files will be created with names Project name\_Pen.csv and Project name\_Event.csv

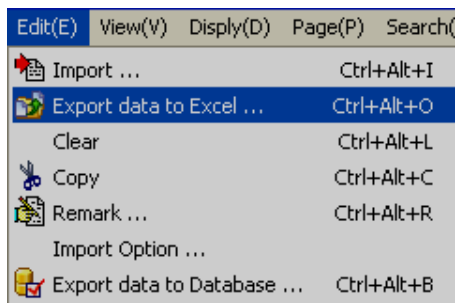
Ex: Test1\_Event.csv

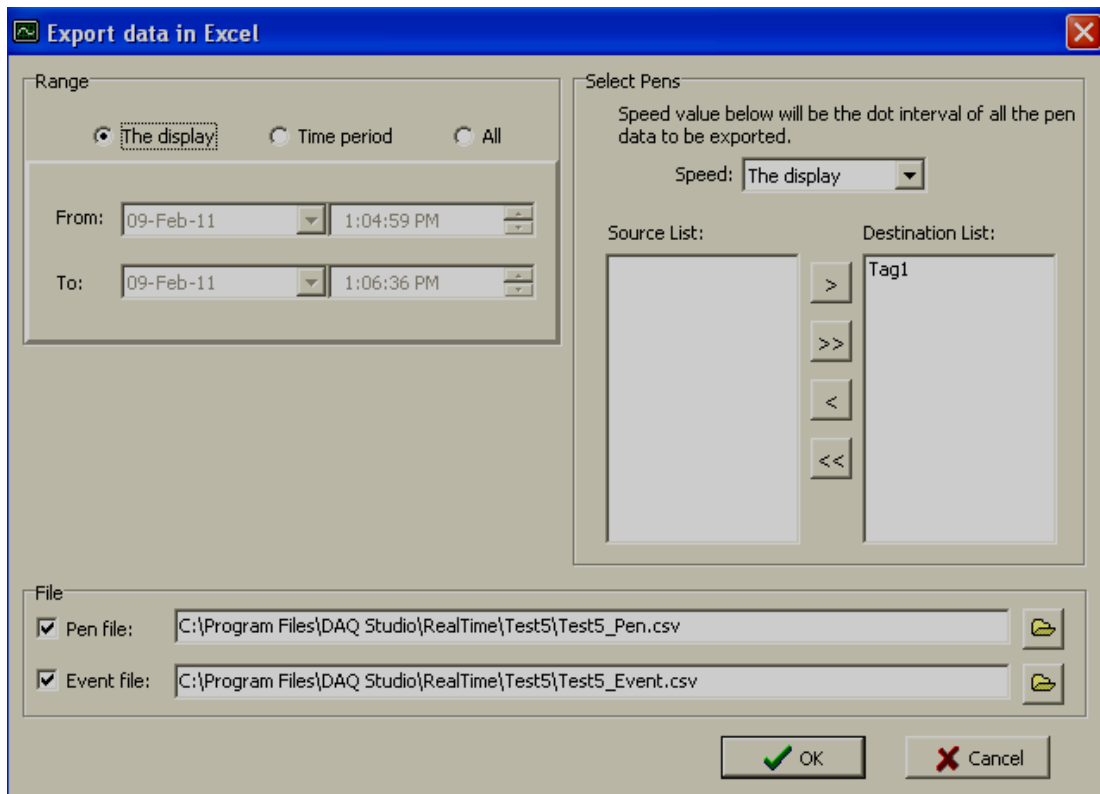
Ex: Test1\_Pen\_csv, Where Test1 is project name

	A	B	C
1	Date/Time	Tag1	Tag2
2		Instant	Instant
3		%	%
4	02-09-11 13:35:54	545.3	507.5
5	02-09-11 13:35:54	546.2	508
6	02-09-11 13:35:54	547.1	508.6



If there is large data, after 65535 rows, it creates new excel file with name Project name (Part X), where X is the file number say 1, 2 etc.





## Range

**The display:** Select this option if it is required to export data specific to display screen (current view).

**Time Period:** Select this option and enter start data, end date, start time and end time. This is to select historical data with specific time period and then export to excel

**All:** Select this option if all the historical data needs to export to excel files.

**Speed:** This is to select resolution for data archival.

100 msec/dot, 1 sec/dot, 2 sec/dot, 5 sec/dot, 10 sec/dot, 20 sec/dot, 30 sec/dot, 1 min/dot, 2 min/dot, 5 min/dot, 10 min/dot, 30 min/dot, 10 min/page, 30 min/page, 1 hr/page, 2 hrs/page, 4 hrs/page, 8 hrs/page, day/page, week/page and month/page

For example: If 1 sec/dot selected, then you can archive data once in a second.

If 1 min/dot selected, then you can archive data once in 1 min

**Source List:** Tags available for selection for data export

**Destination List:** Tags already selected for data export



Move Tag from source to Destination



Move all Tags from Source to Destination

 Move Tags from Destination to Source

 Move all Tags from Destination to Source

☒ Pen file: Select path of data files where all the excel files (data) need to be available.

☒ Event file: Select path of event files where all the excel files (event/alarms) to be available.

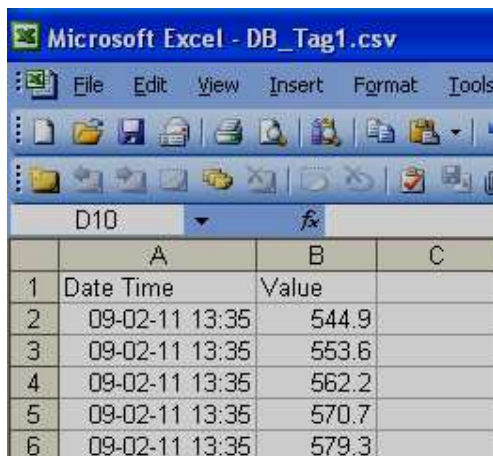
### 6.5.2 Export data to database

It is to export historical data to database in selected path manually

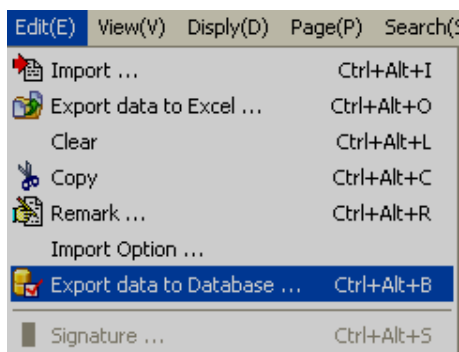
In this case, each tag will have one dedicated file. This is not same as export data to Excel.

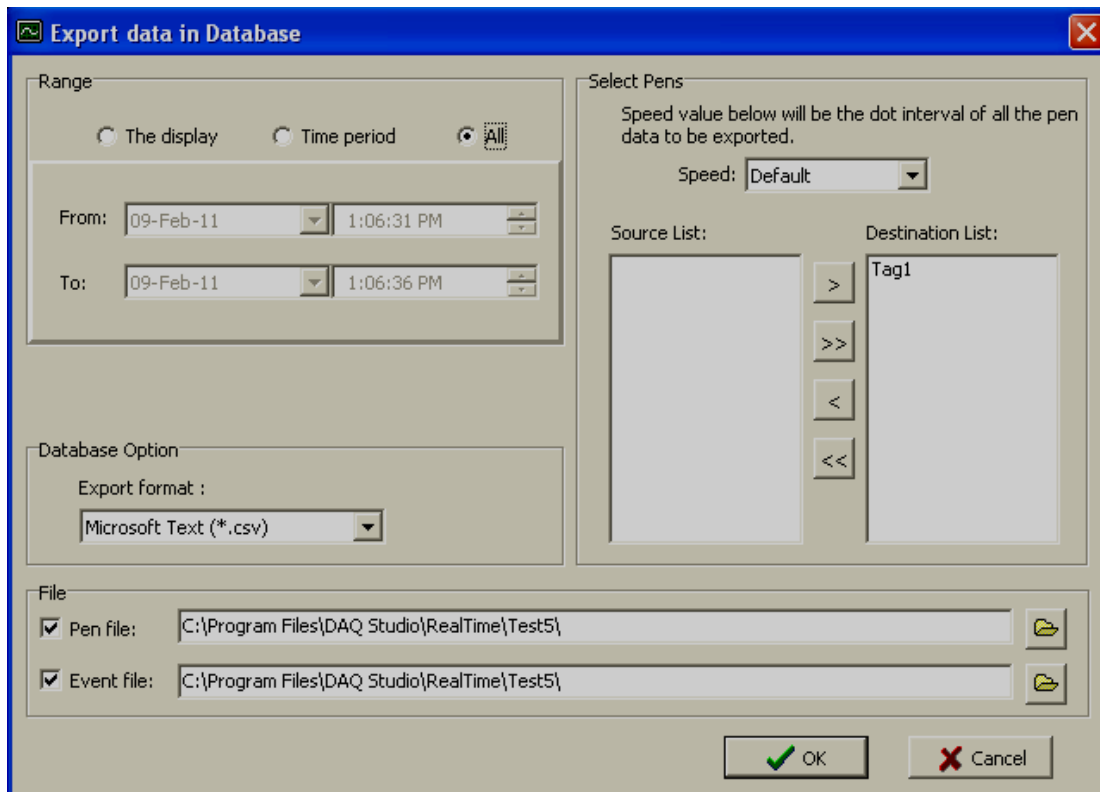
For example, if you have 2 tags in the project, 2 files will be created for data itself with names + 1 file for events say alarms

Ex: DB\_Tag1.csv, Tag1 data  
DB\_Tag2.csv, Tag2 data  
DB\_Event.csv, alarms data



	A	B	C
1	Date Time	Value	
2	09-02-11 13:35	544.9	
3	09-02-11 13:35	553.6	
4	09-02-11 13:35	562.2	
5	09-02-11 13:35	570.7	
6	09-02-11 13:35	579.3	

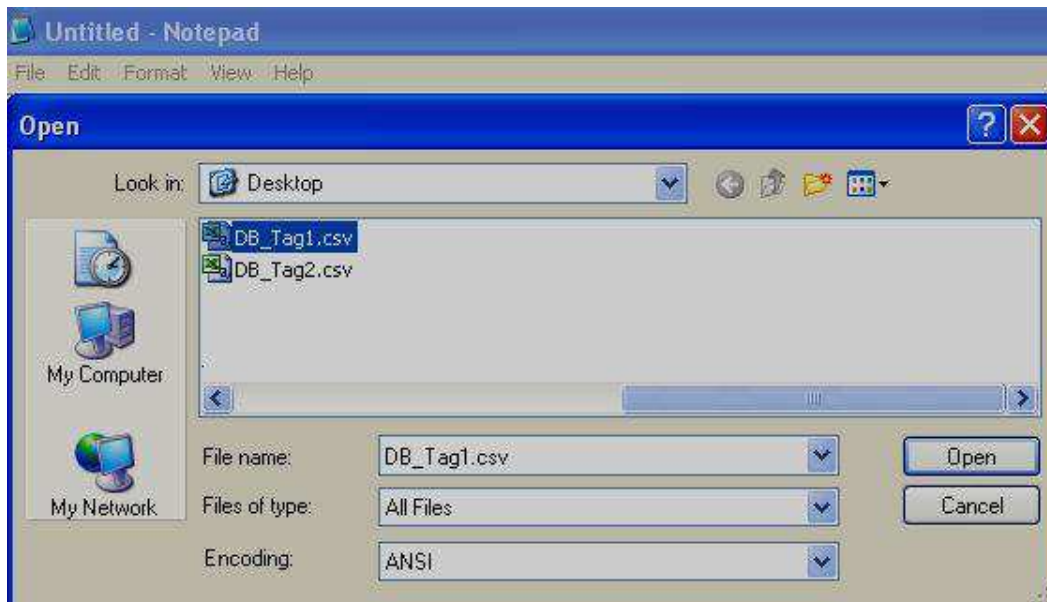




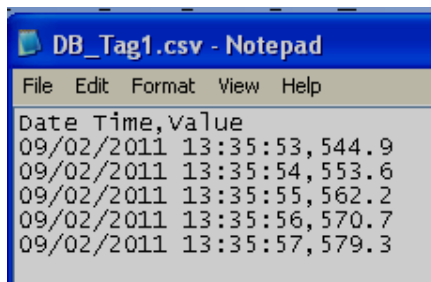
All descriptions are same as in earlier section.

Export format: Currently Microsoft Text (\*.CSV) is supported.

These files can be opened from Notepad also and they appear as follows



Select Files of type = "All files" and then, select the path where files are located

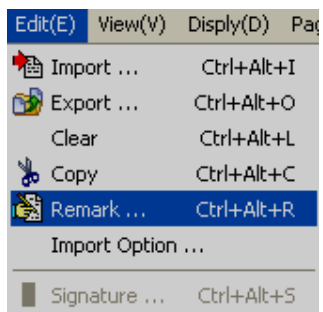


### 6.5.3 Export data automatically

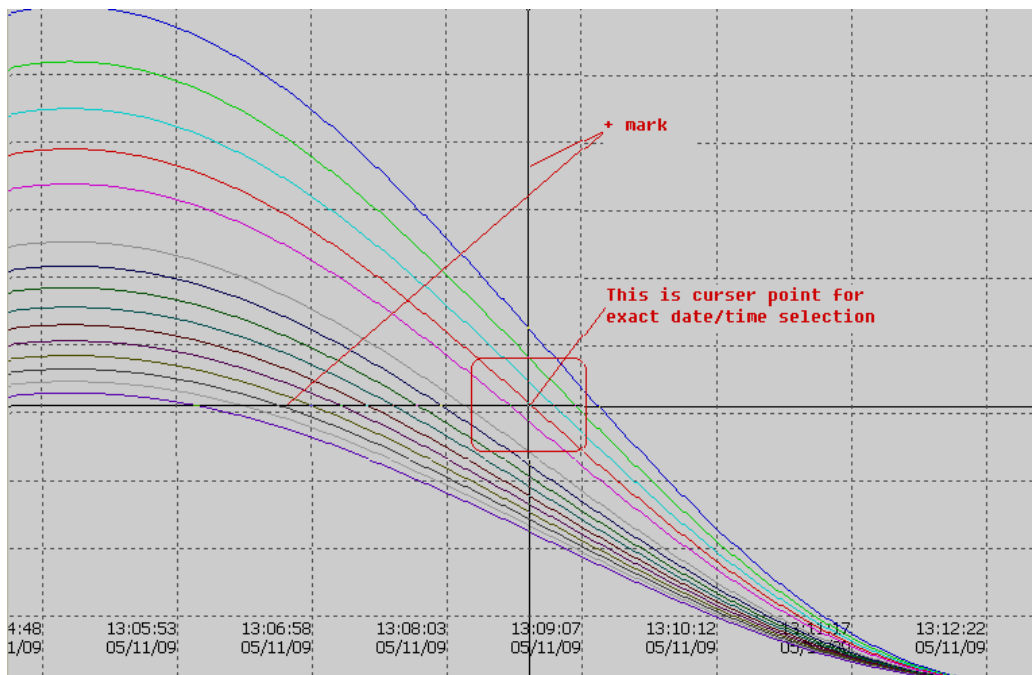
If you wish to import data from device to PC first and export data automatically, then, select the required options properly at section “Import options”

### 6.6 Remark

This is used to mark comment on data after verification. For example: supervisor checks historical trend and may wishes to mark a comment say “Irregular” at specific date/time. Maximum 40 characters are allowed in each remark.

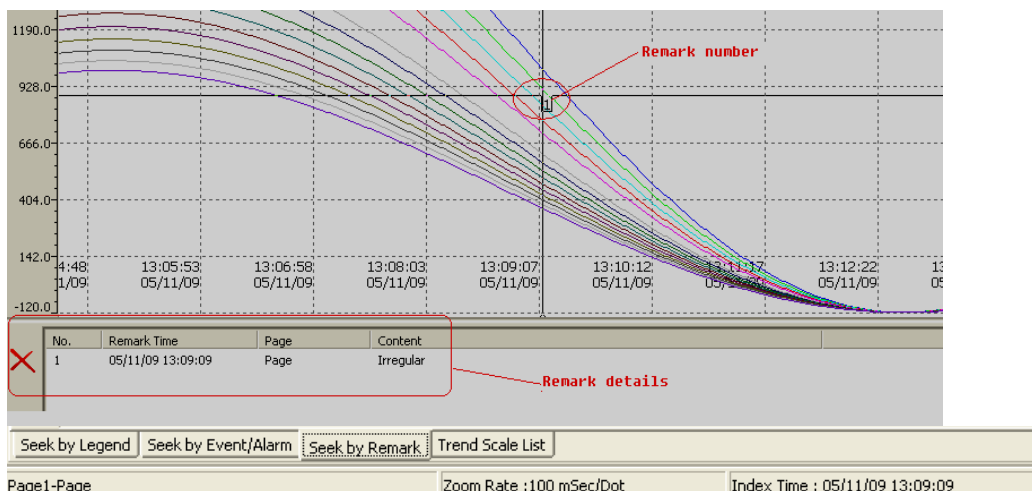


In historical viewer, there is a pointer which moves around the trend for selecting the data. Just use the mouse and left-single click on historical trend, then you can see pointer “+” as shown attached.



Place the pointer at exact date/time required, then in menu, click on “Edit”, then “Remark” and now, it prompts the following.

Click on “OK” after writing remark



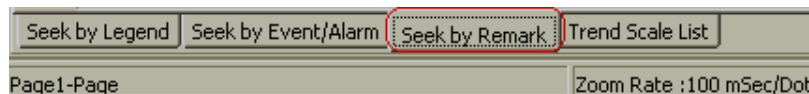
Later, it is possible to search data with respect to above remark by any one of the following ways.

Click on Remark icon 

In Menu, click on “Search”, then select “Remark”

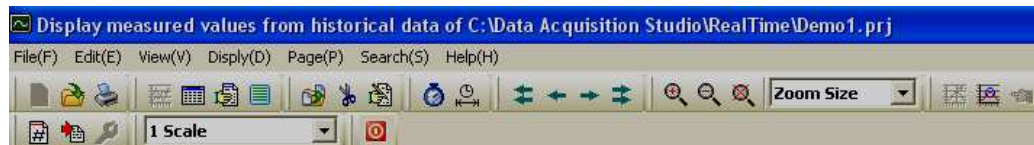


Alternatively, near the task bar at bottom area of the screen, click on “Seek by Remark”



Then, it will show list of Remarks available in a window. Just double click on selected Remark and pointer will navigate to specific remark number automatically at specific date/time.

## 6.7 View



This is to display trend in monitor with various zoom rate.

**Horizontally:** To view historical trend horizontally in screen

**Vertically:** To view historical trend vertically in screen

**Black background:** To set black back ground for historical trend

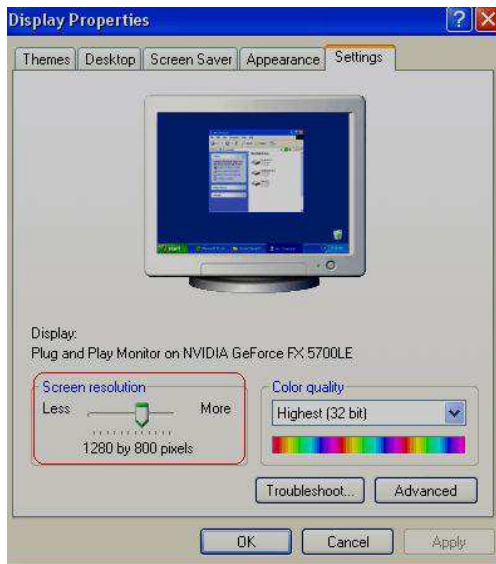
**White background:** To set white background for historical trend

For example: Zoom 1 sec/dot

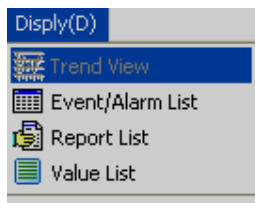
First check, monitor current display setting

If screen resolution is “1280 X 800” pixels, then you may be able to see data around 900 sec. at right side of the trend, it shows digital values and it occupies remaining pixels.



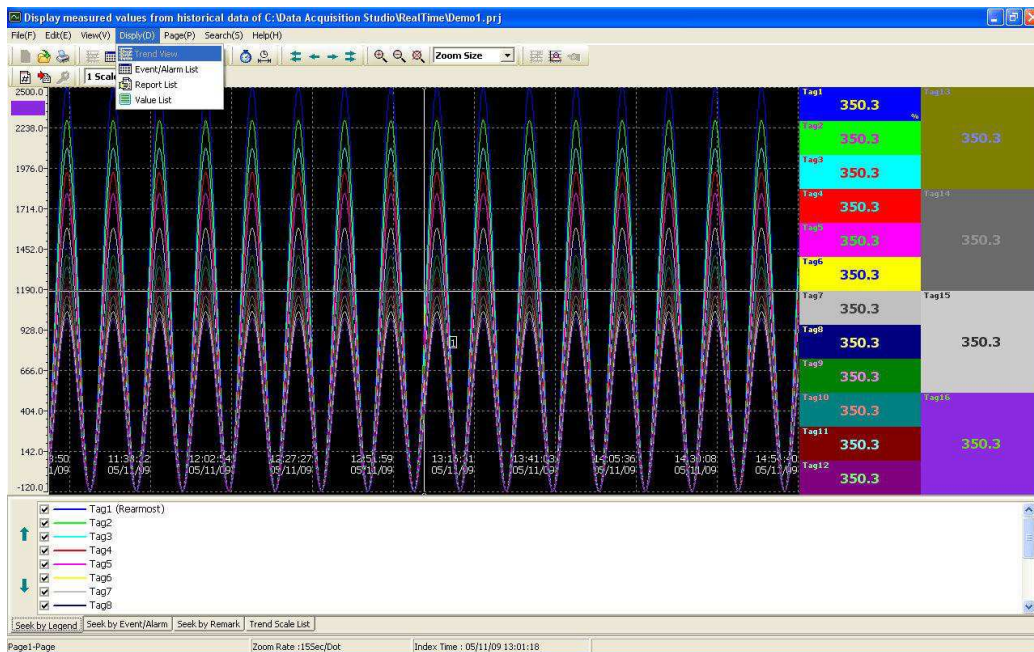


## 6.8 Display

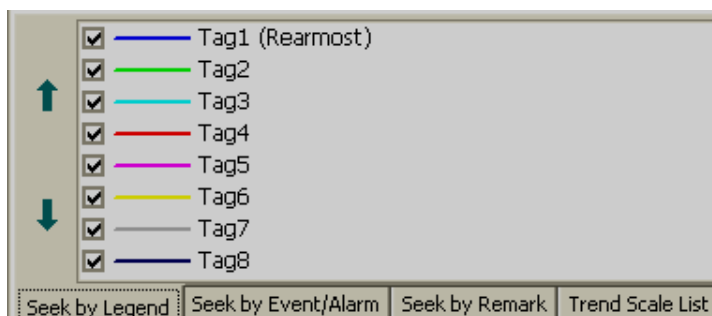


### 6.8.1 Trend view

It is to view historical trend



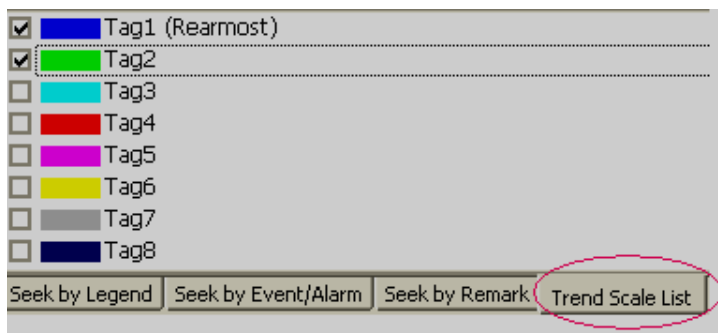
If 24 pens are configured in page1 and if it is required to view only 1 to 8 pens, then select them in window as shown.



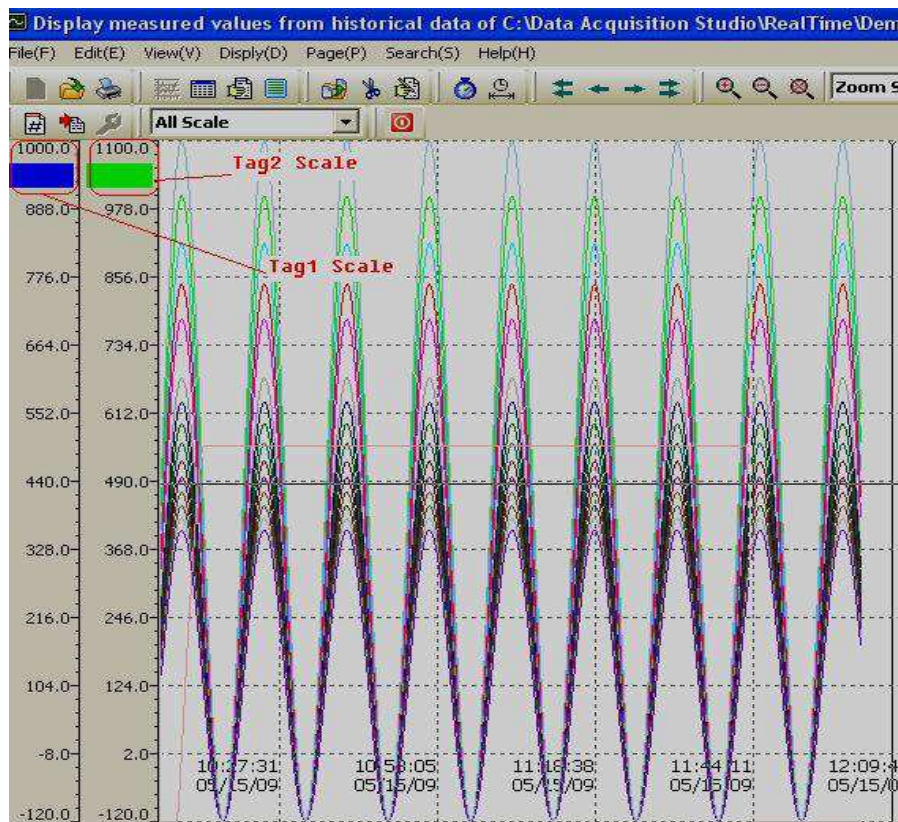
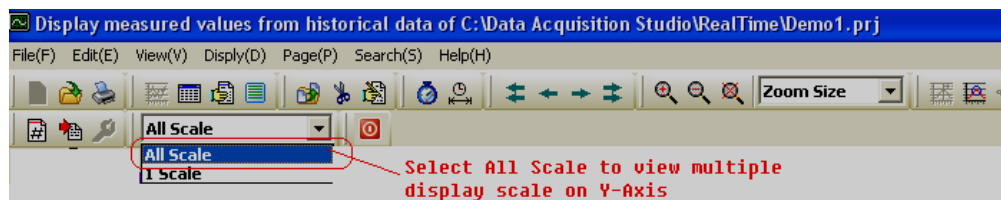
Tag1 scale is -120 to 1000

Tag2 scale is -120 to 1100

If it is required to see both the scales, then click on "Trend scale List", select the required tags.



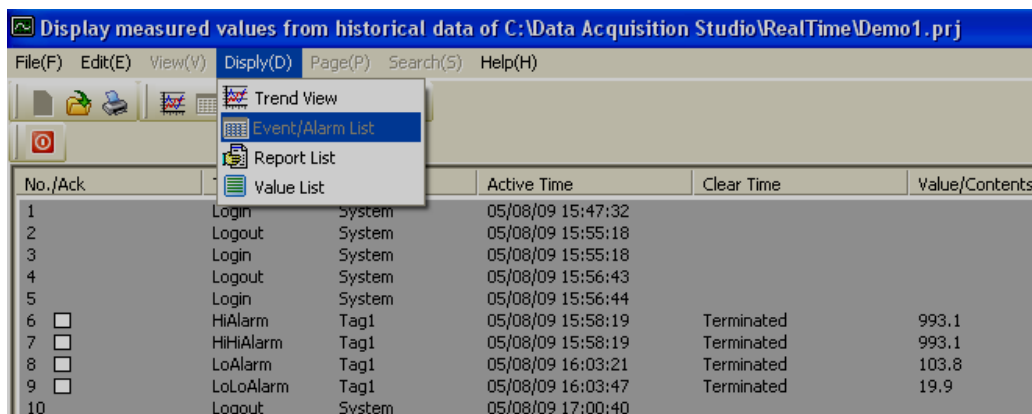
Select "All Scale" option as shown attached



If it is required to change color, width, display scale of specific pen, then do the settings in HMI configuration itself. The settings made at HMI shall be retrieved in historical viewer also. No separate display settings available for Historical viewer.

## 6.8.2 Events/Alarm List

It is to view list of Events/Alarms



It shows list of Alarms/events as per occurrence of event as per channel configuration.

Event/Alarm					
	Type	SetPoint	Job1	Job2	Hysteresis
1	H	776.0	Log Alarm	Log Message_Message1	0.0
2	L	104.0	Log Alarm	No Action	0.0
3	HH	860.0	Log Alarm	No Action	0.0
4	LL	20.0	Log Alarm	No Action	0.0
5	Error	0.0	No Action	No Action	0.0

### 6.8.3 Reports List (Only for Paperless Recorder)

At present, this is applicable only for Paperless Recorder (Not for HMI)

It is to view list of reports



#### 6.8.3.1 Reports Example

A factory operates for 8 hours a day from Monday to Friday, and the staff wish to get the total volume of production from daily, weekly and monthly reports.

Start totalizer at 8.00 hrs  
Stop Totalizer at 17.00 hrs

Source of Process value: Analog input1 (feed rate: 1000 M<sup>3</sup>/hr)

Totalizer1 configuration

The screenshot shows the 'RealTime Configure' window with the 'Totalizer' tab selected. The configuration for 'Totalizer1' is as follows:

- Name: Tolz1
- Desc: (empty)
- Source: Tag1
- Action: Enable
- Decimal: 1
- Period: Hour
- Unit: M3/hr
- Preset: 0.0
- Low Cut: 0.0

Below the configuration fields is an 'Event/Alarm' table:

No.	Type	SetPoint	Job1	Job2
1	No	100.0	Log Alarm(AutoAck)	No Action
2	No	100.0	Log Alarm(AutoAck)	No Action

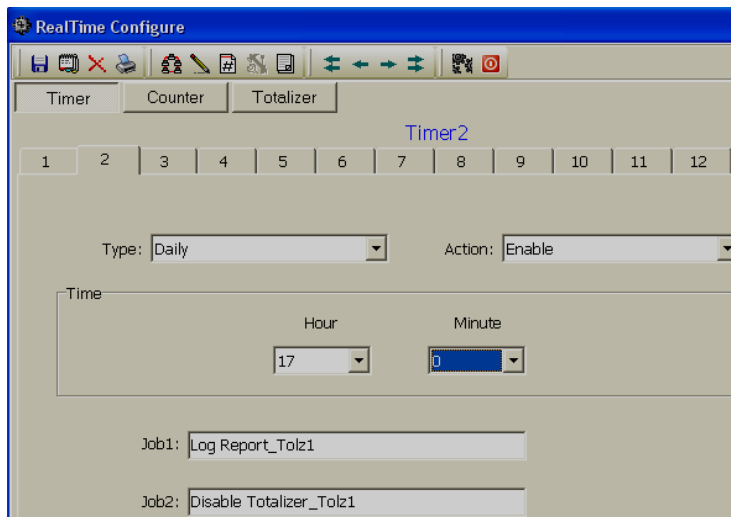
## Timer 1 Configuration

The screenshot shows the 'RealTime Configure' window with the 'Timer' tab selected. The configuration for 'Timer1' is as follows:

- Type: Daily
- Action: Enable
- Time:
  - Hour: 8
  - Minute: 0
- Job1: Reset Totalizer\_Tolz1
- Job2: Enable Totalizer\_Tolz1

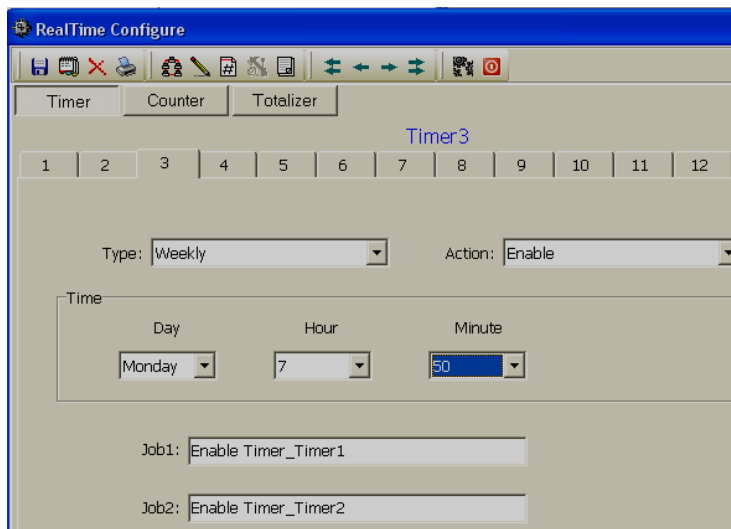
It require to Reset Totalizer at start of totalizing every day to begin recording of new data again

## Timer2 Configuration

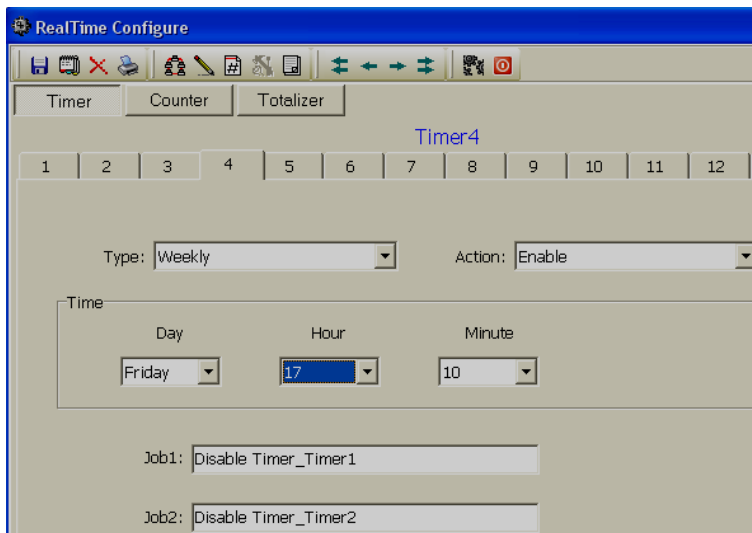


When Log Report function is used, it memorize Totalizer data at specific time which will be used later during reports archival as daily, weekly and monthly basis

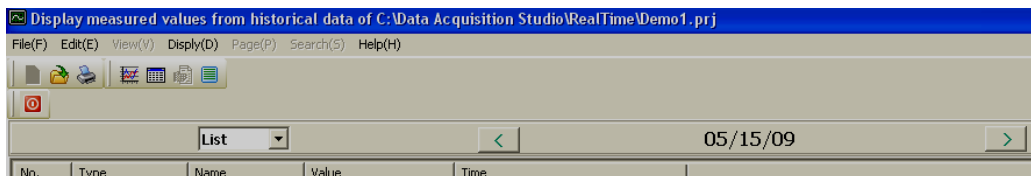
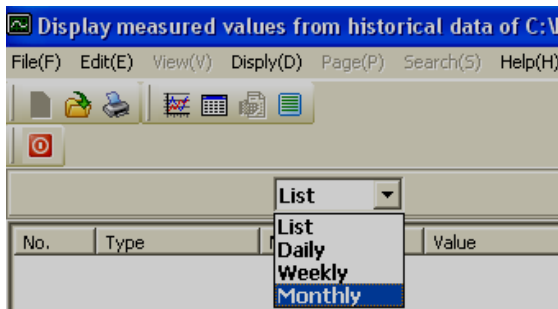
### Timer3 Configuration





### Timer4 Configuration







Now, you can view various reports as follows



**List:** It lists all the Reports logged with in a day. For ex: three shifts in same day

**Daily:** Select Daily to list log report for total day. Use  &  soft buttons to navigate reports of other days

**Weekly:** Select Weekly to list log report for current week (Sunday to Saturday). Use  &  soft buttons to navigate to earlier and next week

**Monthly:** Select Monthly to list log report for current month. Use  &  soft buttons to navigate to earlier and next months

For ex: 11 may, 2009, Monday, total feed rate is 1000 M<sup>3</sup>

12 may, 2009, Monday, total feed rate is 2000 M<sup>3</sup>  
 13 may, 2009, Monday, total feed rate is 3000 M<sup>3</sup>  
 14 may, 2009, Monday, total feed rate is 4000 M<sup>3</sup>  
 15 may, 2009, Monday, total feed rate is 5000 M<sup>3</sup>

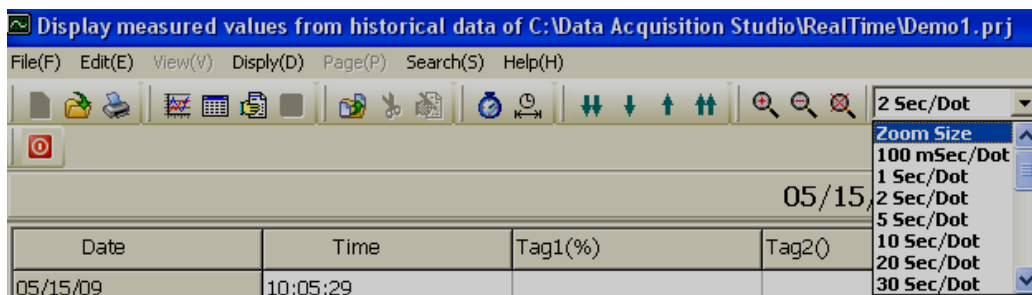
For the weekly report from May10 to May16, it shows 15000 M<sup>3</sup>

Ex: First week total is 10000 M<sup>3</sup>, second week total is 15000 M<sup>3</sup>, third week total is 10000 M<sup>3</sup> and fourth week total is 12000 M<sup>3</sup>, then in the monthly report, it will show a total of 47000 M<sup>3</sup>

## 6.8.4 Value List

It is to view data in tabular column

05/12/09 07:59:44 ~ 05/12/09 16:20:01					
Date	Time	Tag1(%)	Tag2()	Tag3()	Tag4()
05/12/09	14:28:36	897.5	897.5	897.5	897.5
05/12/09	14:28:03	961.0	961.0	961.0	961.0
05/12/09	14:27:31	995.4	995.4	995.4	995.4
05/12/09	14:26:59	996.6	996.6	996.6	996.6
05/12/09	14:26:26	964.5	964.5	964.5	964.5
05/12/09	14:25:54	903.2	903.2	903.2	903.2
05/12/09	14:25:21	812.1	812.1	812.1	812.1
05/12/09	14:24:49	702.4	702.4	702.4	702.4
05/12/09	14:24:16	577.8	577.8	577.8	577.8
05/12/09	14:23:44	440.9	440.9	440.9	440.9
05/12/09	14:23:11	308.2	308.2	308.2	308.2
05/12/09	14:22:39	179.1	179.1	179.1	179.1
05/12/09	14:22:06	69.2	69.2	69.2	69.2
05/12/09	14:21:34	-19.7	-19.7	-19.7	-19.7
05/12/09	14:21:02	-83.9	-83.9	-83.9	-83.9
05/12/09	14:20:29	-115.9	-115.9	-115.9	-115.9
05/12/09	14:19:57	-116.1	-116.1	-116.1	-116.1
05/12/09	14:19:24	-83.2	-83.2	-83.2	-83.2



Various Zoom rates are available for selection

100 msec/dot, 1 sec/dot, 2 sec/dot, 5 sec/dot, 10 sec/dot, 20 sec/dot, 30 sec/dot, 1 min/dot, 2 min/dot, 5 min/dot, 10 min/dot, 30 min/dot, 10 min/page, 30 min/page, 1 hr/page, 2 hr/page, 4 hr/page, 8 hr/page, day/page, week/page and month/page

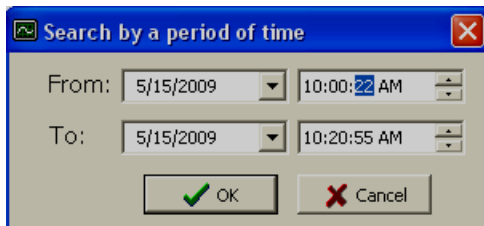




Search by specific time

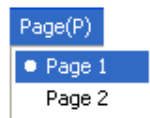


Search by a period of time



These are for navigation of pointer in tabular column fast backward, backward, forward and fast forward.

## 6.9 Page Selection



In Menu, click on “Page” and then select the required page.

Number of pages available for display depends on configuration of display pages in Real time.

Maximum 200 display pages are available and maximum 24 pens (channels) can be configured in each page.

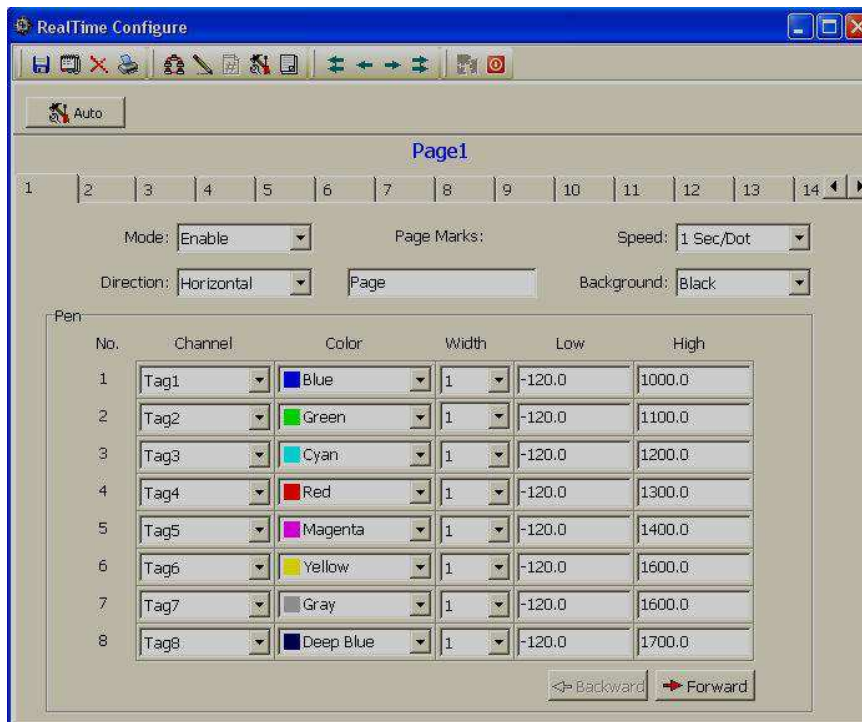


Fig: Display pages configuration in Real time.

Note: In Mode, if “Disable” is selected, then page will be not visible in either Real time viewer or Historical viewer.

## 6.10 Search

It is to search data and then take print out of trend if required.


Data can be searched with following criteria.

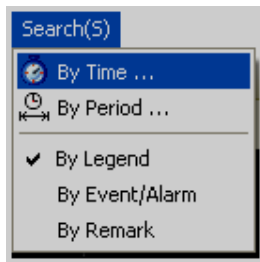
- By Time
- By Period of Time
- Seek by Tag Name
- Seek by Event/Alarm
- Seek by Remark



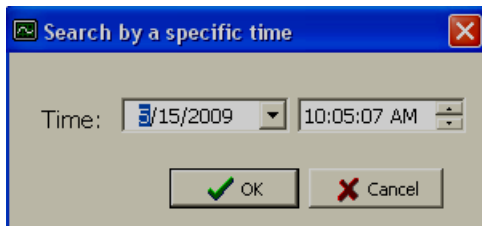
### 6.10.1 By Time

It is to search data by specifying exact date and time

Click on  icon for search by specific time, alternatively, in Menu, click on “Search” and then Select “By Time”.




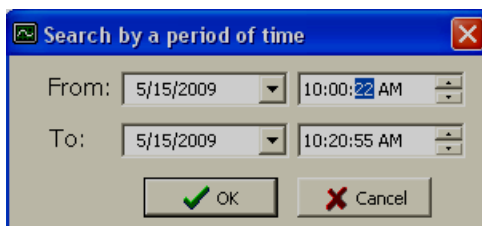
Enter the required date and time of the data to be searched and click on “OK”, then pointer in trend will go to specified date/time.





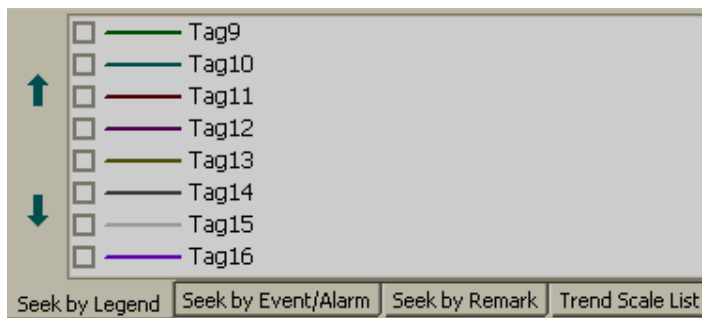
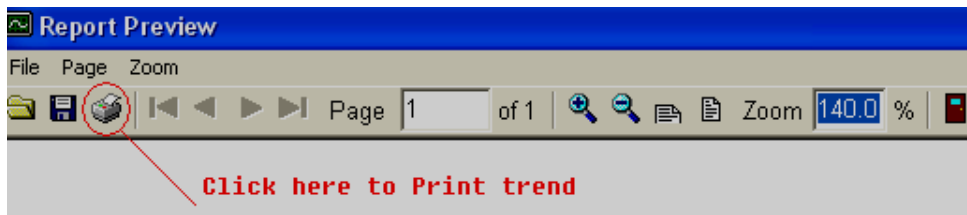
### 6.10.2 Period of Time

It is to search data specifying time interval

Click on  icon to search data by a period of time, alternatively, click on “Menu”, then select “By period”.

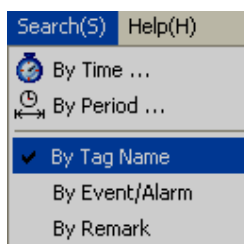


Enter Start date, end date, start time and end time for the data to be searched and click on “OK”, then it displays trend in specified range. To take print, click on Print icon  to open Print viewer and then click on  for printing the trend



### 6.10.3 By Tag Name

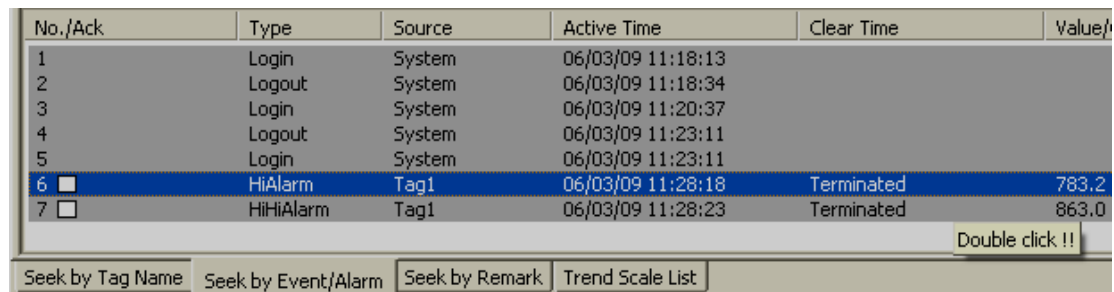
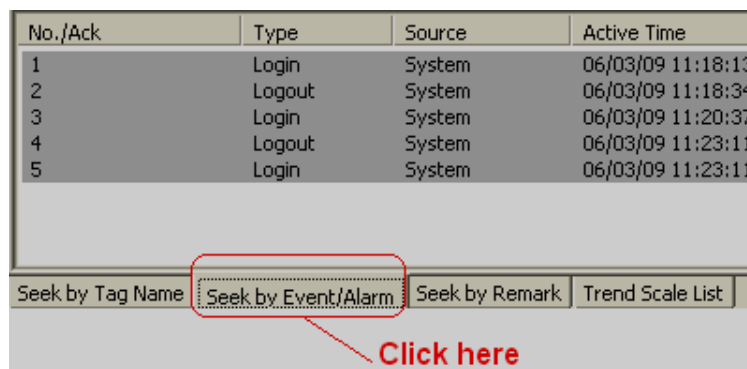
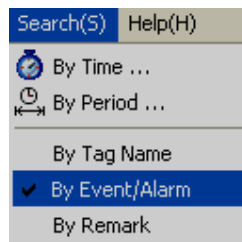
It is to select specific trend for display. For example: You have configured 8 tags in page no.1, to check tag1 clearly, you wish to see only trend1. Then, select this option and select the required tag.



Click on "Seek by TagName", and then select the required Tag to display in trend. If it requires viewing display scale, click on "Trend scale list" and select the required tag.

#### 6.10.4 By Alarm/Event

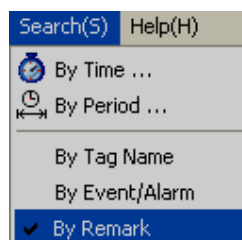
It is to view and point to data based on selected event.

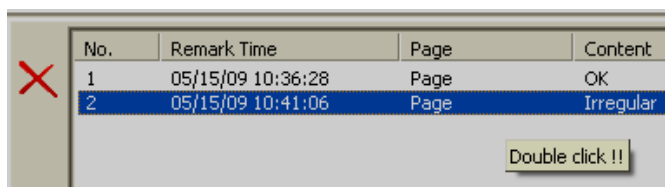
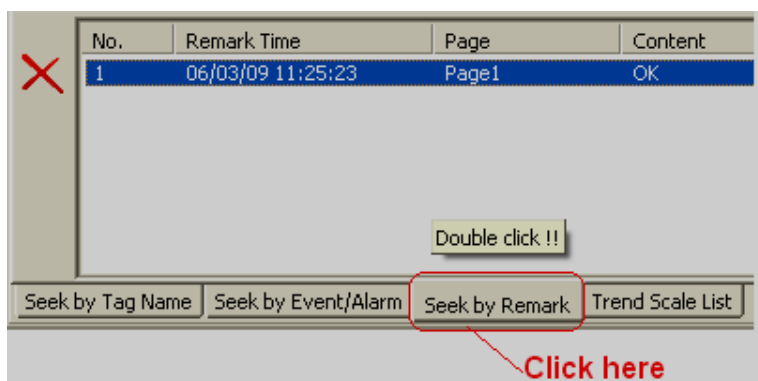


Select the required event/Alarm, then double click on it. Then, pointer in the trend will move to specific time at which event/Alarm is triggered.

#### 6.10.5 By Remark

It is to view and point to data based on selected Remark.



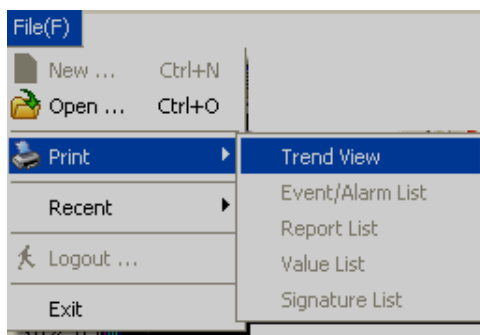


All the list of Remarks will be shown in window at the bottom side of the screen as shown above. Select the Remark and double click. Then, pointer in trend will go to data where specific remark is marked earlier.

## 6.11 Print

It is to print Trends, Events/Alarms, Reports, Process Values etc.

First it requires to search the historical data as explained in earlier section and then click on Print icon, it open Print preview first and then click Print icon again to take print out.



## 7. Frequently asked questions

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1. What is the difference between Data acquisition studio and IO studio software?

IO Studio software is a tool used for configuration of IO module from PC and it is also used for IO module diagnostics purpose. It is not for Real time Data logging and archival. Real time viewer is for data logging and archival

2. What is the difference between Observer software, Communicator software and DAQ software?

Observer software is used for Paperless Recorder

Communicator software is used for Temperature Controllers

DAQ software is used for IO modules, Paperless Recorders and Controllers

DAQ software is similar to Observer software but with additional features. Please check section 1.3 for details information about features available with DAQ software

3. Can I open IO Studio and Real Time viewer at same time in PC?

No. First open IO studio software for configuration of IO module. Close IO studio software and then open Real Time viewer

4. Can I open Observer software and DAQ software simultaneously in single PC?

No, it is not possible. It may conflict some of resources and it may generate some error messages.

It is not required to run Observer software and Data acquisition software simultaneously in same PC as Data acquisition software also covers paperless Recorders and Controllers shortly along with IO modules. In this case, it just need to uninstall Observer software and install data acquisition software

5. I want to run DAQ-Real time viewer in 3 different computers. Do I need to buy 3 nos. hardware lock?

Yes. It is required to buy 3 nos. USB based hardware lock (Keypro). This is license to use Data acquisition software in single PC. With out this hardware lock, data acquisition software will run in demo mode for 1 hr

6. I have only COM port in PC, I don't have USB port. How I can run DAQ software?

It requires another PC with USB port. Serial port based hardware lock is not available

7. I want to run Real Time viewer in single PC. I want to view historical data in other 2 computers in LAN. How many hardware locks I need to buy?