



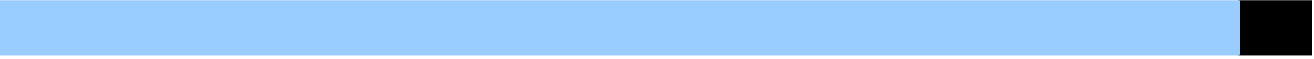
Rish*EMS*

A Complete Solution for Energy Management

User Manual

RISHABH INSTRUMENTS PRIVATE LIMITED

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RISH EMS (Energy Management System) is an supreme energy ma solution for all types of industries, manufacturing plants, shopping malls, commercial buildings or any situation where high amount of electricity is consumed. It helps to enhance your energy conservaton and utility management efforts by regularly polling the data from Rishabh **M**ulti **F**unction **M**eters on a Rs485 serial communication system using MODBUS. The data is collected on one centralized computer (Master PC) from where it can be accessed remotely through LAN connection or WAN and Internet.

■ Prerequisite for **RISH EMS** Installation:
Before starting installation of **RISH EMS** below applications are must be preloaded on you PC.

MySQL,
JAVA Runtime Environment and
RS485-Converter's Driver

■ Before starting the **RISH EMS** Application please verify below point:

RS485 converter is connected properly with proper serial port selection (To change or set the USB COM Port please refer procedure mentioned [Annexure A](#)).

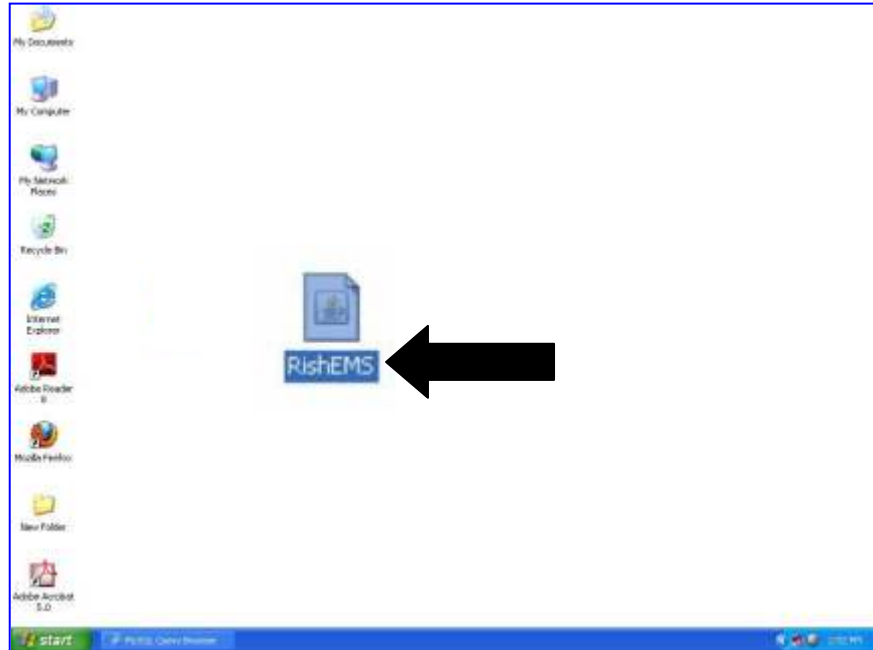
Mysql database structure deployed successfully.

Folders "rpts" and "EMSbackup" placed on local C drive.

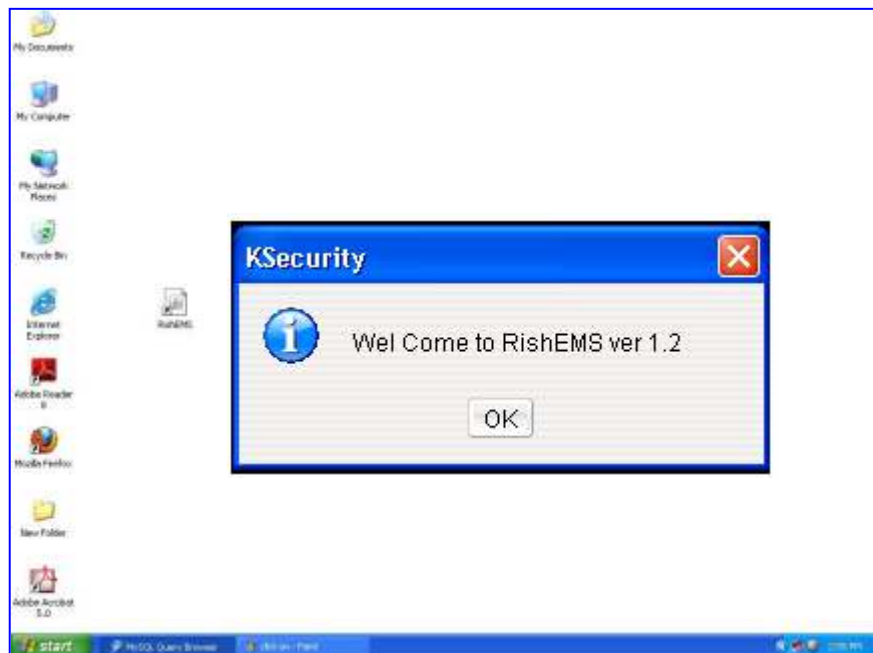
Make sure that icons for "RishEMS.jar" and "RishReports.jar" files are placed on your Desktop during the installation.

Steps to start the RishEMS Application

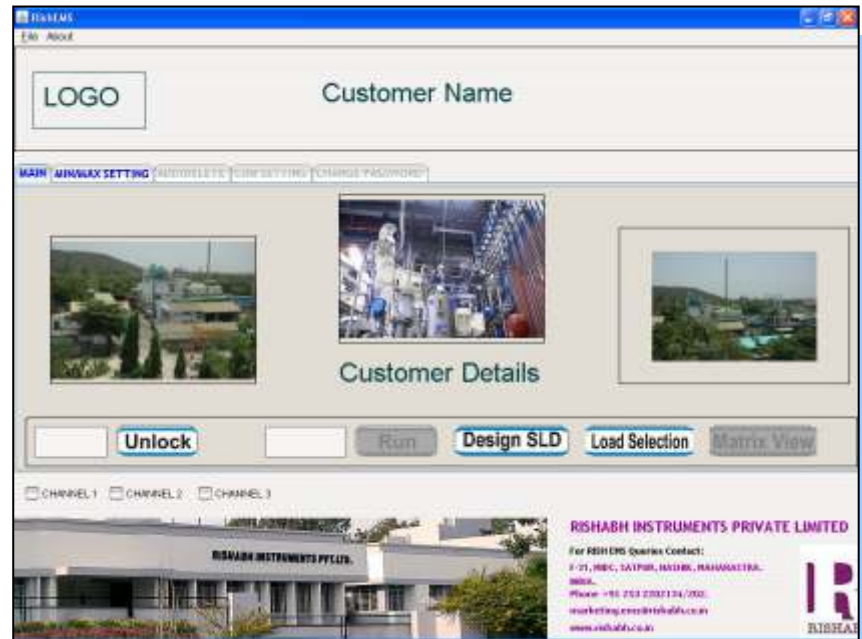
Double click on
"RishEMS" icon
which is on your
desktop screen.



"Welcome to
RishEMS" -
Screen appeared.
Click on **OK**
button.

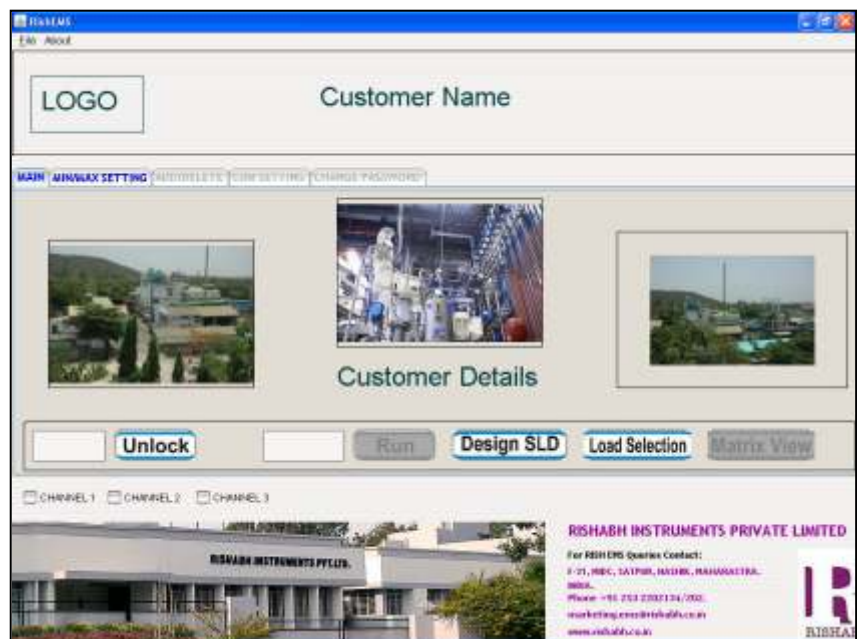


“RishEMS” Main screen displayed.

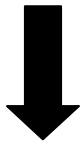


Steps to add nodes in RishEMS Application

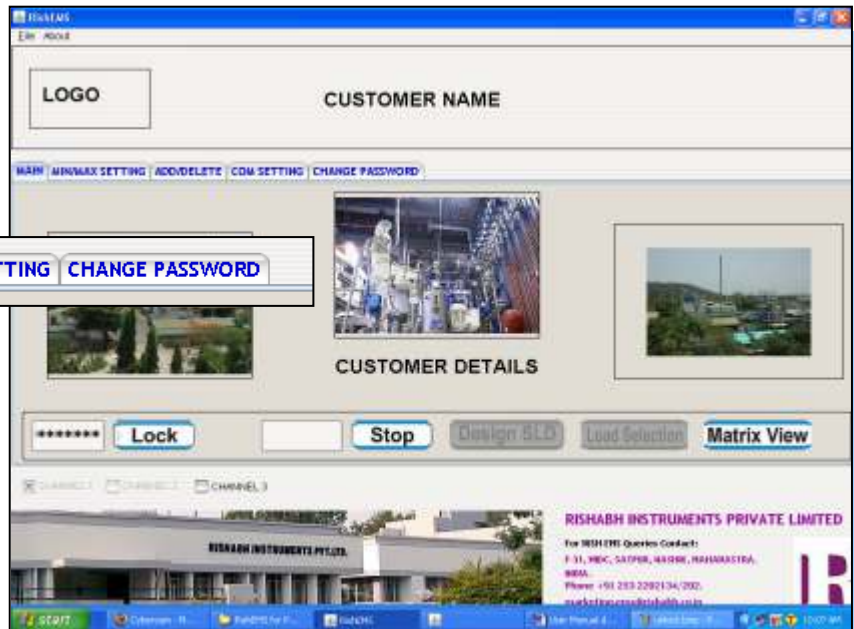
For configuring 'ADD/DELETE' and 'COM SETTINGS' you must select the Channel first then enter correct password in Unlock box.



Unlocked below menu.



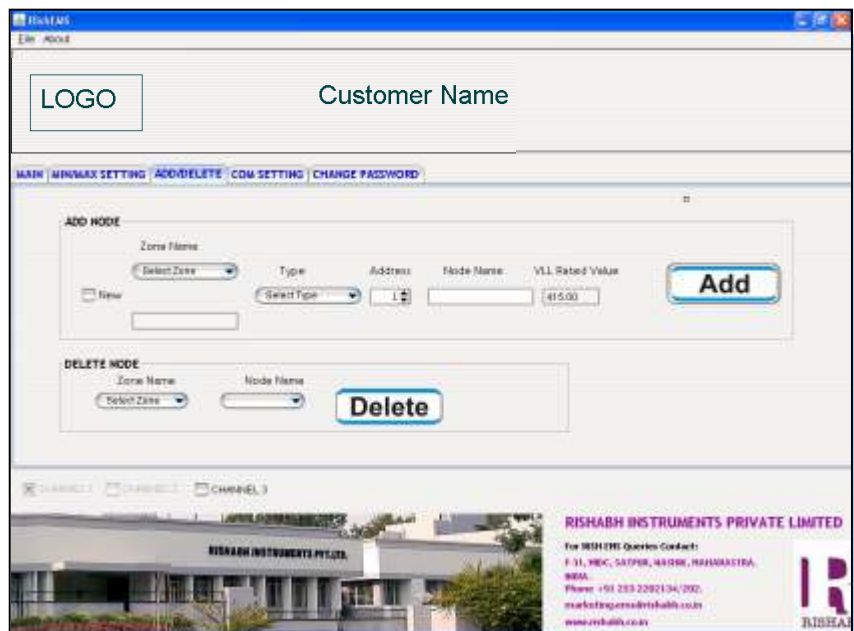
MAIN MIN/MAX SETTING ADD/DELETE COM SETTING CHANGE PASSWORD



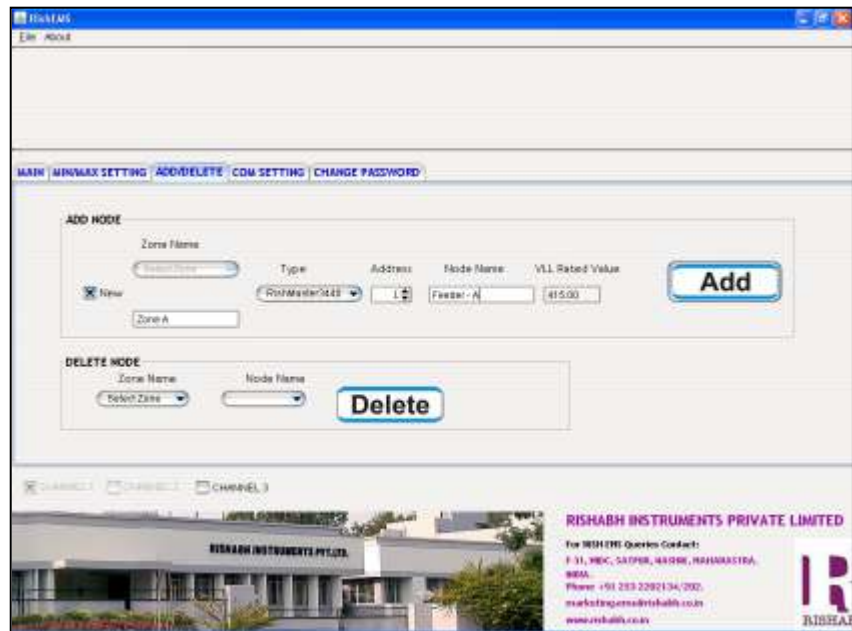
Click on 'ADD/DELETE' tab.



ADD/DELETE



-Tick on New.
 -Enter the Zone Name
 (Name of working
 area/place or working Zone
 place/ Area name) e.g.
 here we entered ZONE-A.



-Select your Rish Meter
 Type : Here we entered
 'RISH MASTER 3440'.
 -Enter Correct node
 Address which has set
 on your Rish Meter.
 -Enter the Node Name,
 Here we have entered
 'Feeder - A'.
 You can put – load
 Name where you are
 using this meter
 -Click on ADD button.



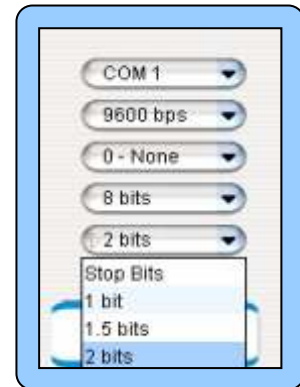
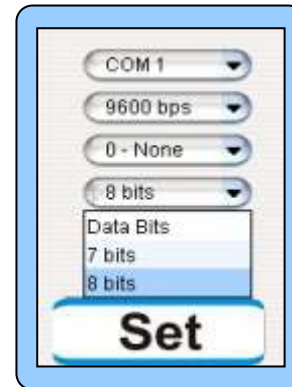
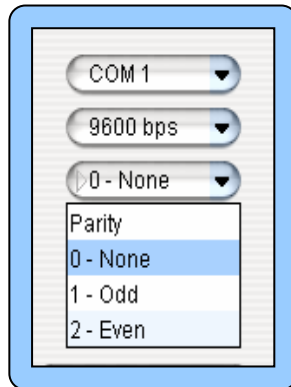
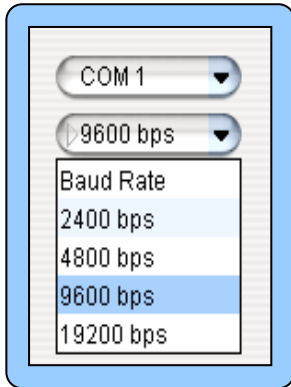
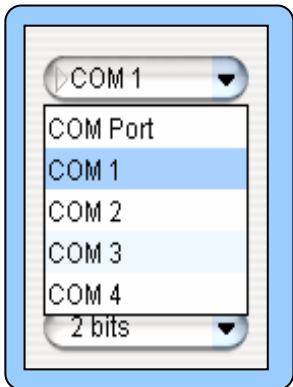
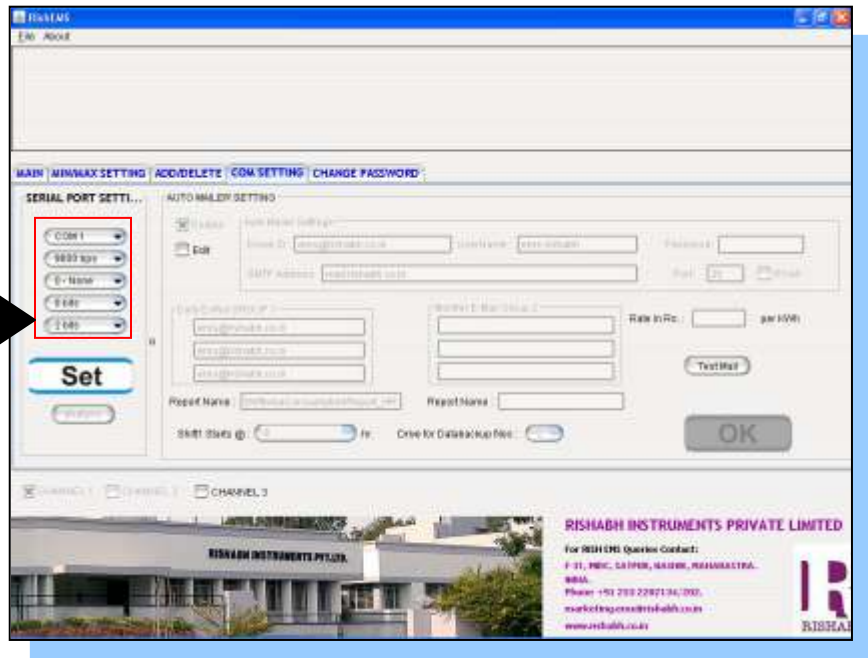
Steps to Delete the Node from the RishEMS Application

You have to select the
 existing Zone Name, Node
 Name and Click on Delete
 Button for deletion
 purpose.



Steps to Set Communication port

Select the tab :
"COM SETTINGS". This
Settings use for configuring
your RS485 Converter
Which is connected.
Set the Correct options in
SERIAL PORT SETTING.
These settings must match
with the set values in the
MFM.



We entered value as
our configuration and
click on SET button.



Steps to change the Password

For Security level of issue
You must change
Password

LOGO Customer Name

MAIN | MIN/MAX SETTING | ADD/DELETE | CDM SETTING | CHANGE PASSWORD

Old Password :

New Password :

Confirmation :

Set

CHANNEL 1 | CHANNEL 2 | CHANNEL 3

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The BEST ONE Quality Contact:
F-31, HEC, SAIFRA, KARORI, RAJASTHAN,
INDIA.
Phone : +91 283 2292134/202.
marketing@rishab.com
www.rishab.com

Steps to set Minimum and Maximum entries for each parameter for all meters

Select the Zone and Node
For which we are going to
set the Min / Max Settings.
Modify the values under
Minimum and Maximum
Columns. Lastly clicks on
“Set” button to apply it.

LOGO Customer Name

MAIN | MIN/MAX SETTING | ADD/DELETE | CDM SETTING | CHANGE PASSWORD

Parameter	Minimum	Maximum
W1-L1	0.00	999
W2-L1	0.00	999
W3-L1	0.00	999
Amp_1	0.00	999
Amp_2	0.00	999
Amp_3	0.00	999
PF-1	0.00	999
PF-2	0.00	999
PF-3	0.00	999
IC_Avg	0.00	999
Amp_Avg	0.00	999
WPL_Sum	0.00	999
PF_Sum	0.00	999
Flow	0.00	999
...

Zones: smartZone Nodes: []

Set

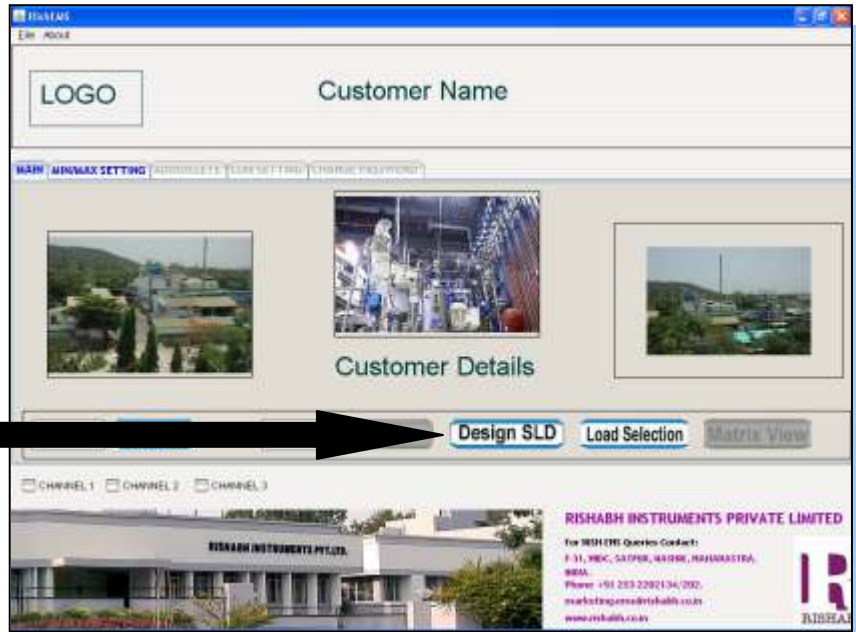
CHANNEL 1 | CHANNEL 2 | CHANNEL 3

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Steps for designing the SLD Screen as per site

Design SLD is a screen view of your real meter places. After selecting the Channel properly, Click on “Design SLD” button. You will get the new screen as shown bellow.



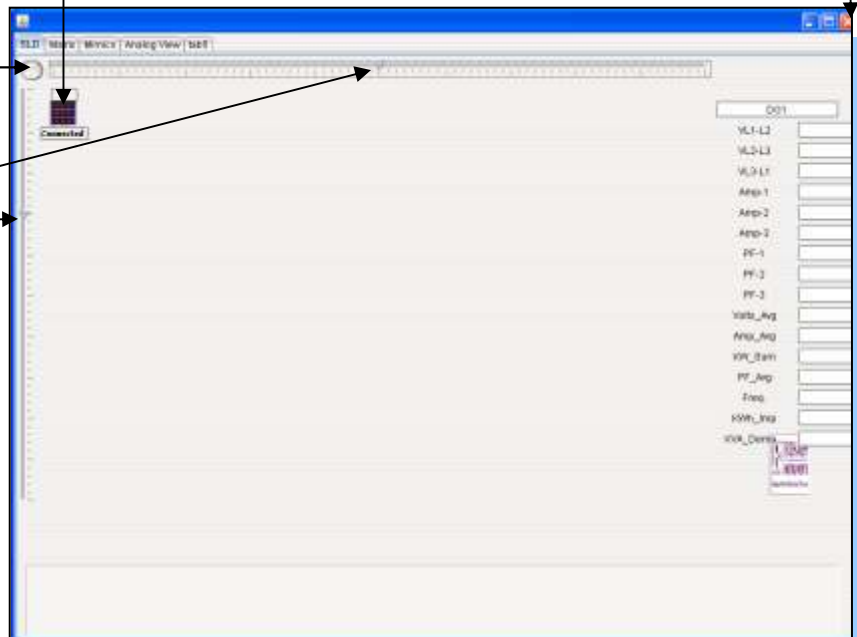
Follow the following steps (a,b,c,d) to relocate the nodes on SLD screen.

(b) Click on this specific meter image.

(d) Click on Close button for closing Design SLD

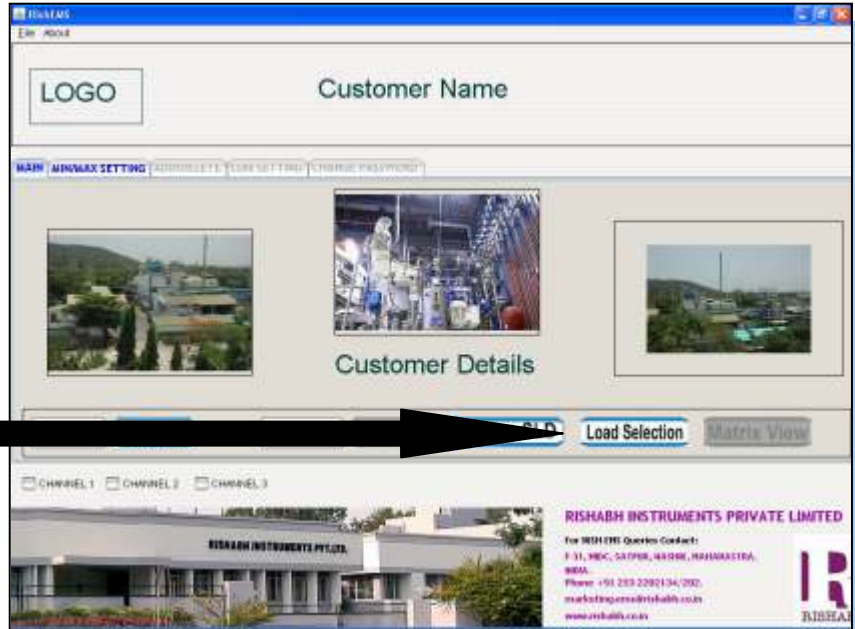
(a) Click here for set the final position of you meter

(c) Move the Arrow Vertical and Horizontal where you want the position of your meter on the screen. Again follow step (a) once. And goto Step (d).



Steps to select the used nodes only for sampling data in “Data Acquisition” process:

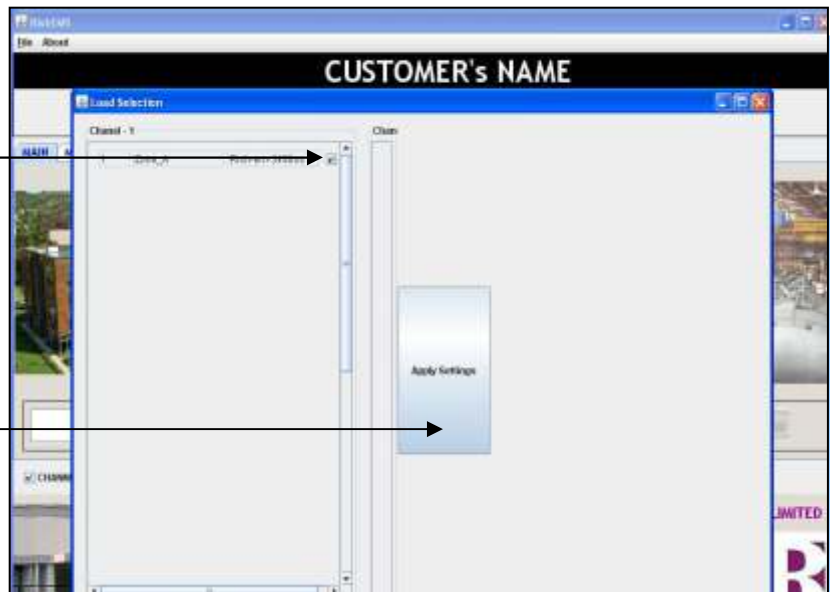
Load Selection: Is the Process of selecting active Node and those nodes are active for online data sampling mode.



From the List tick on the Node buttons which we want to make active while data acquisition process. Which you don't want just de-select them. Finally click on “Apply Settings”

(a) Click it and active this node

(b) Click on apply settings



Starting the RishEMS



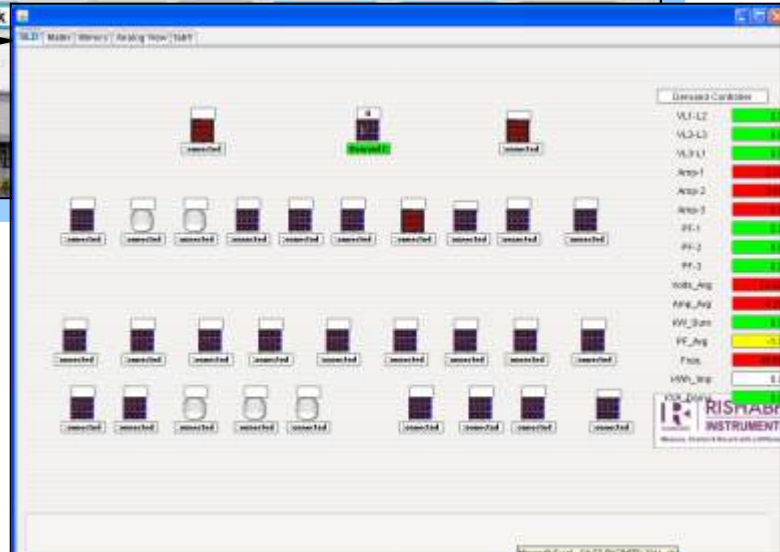
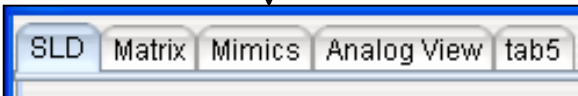
Tick the **Channel**, Enter the right **Password** and Click on **Run** button.

RishEMS Online

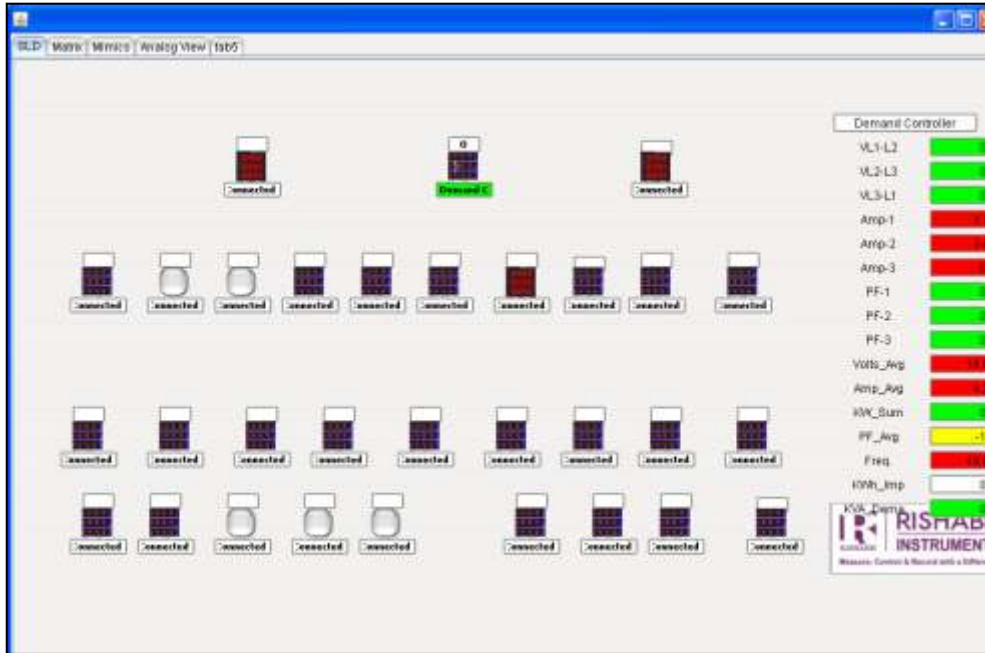
When you Run the RishEMS You will get – **RishEMS**, Five Operational Tab Screen

RishEMS

Five Operational Tab

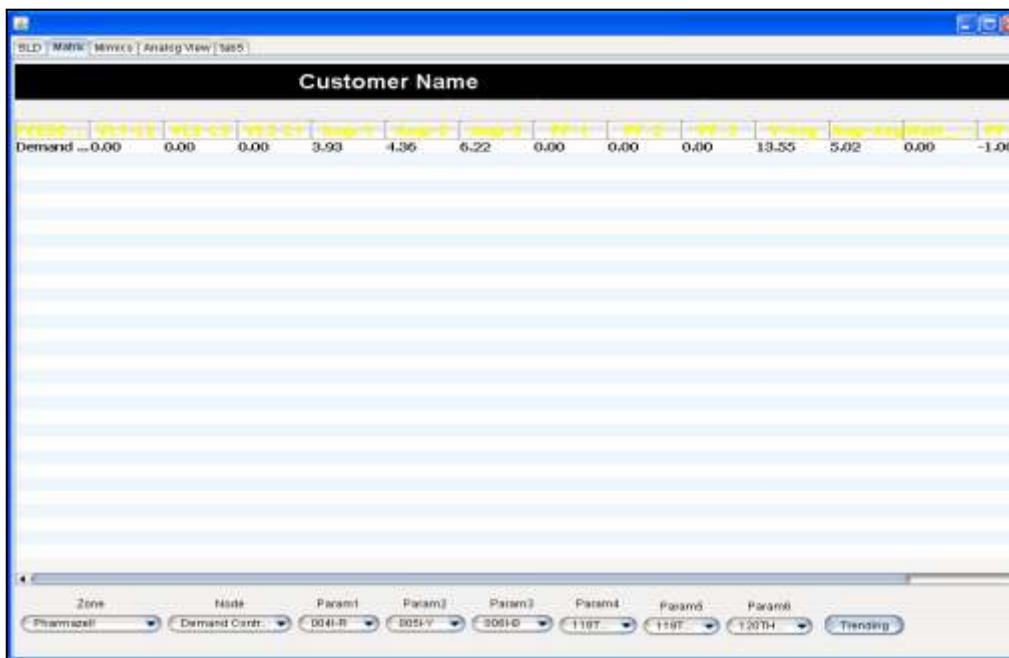


Runtime SLD Screen



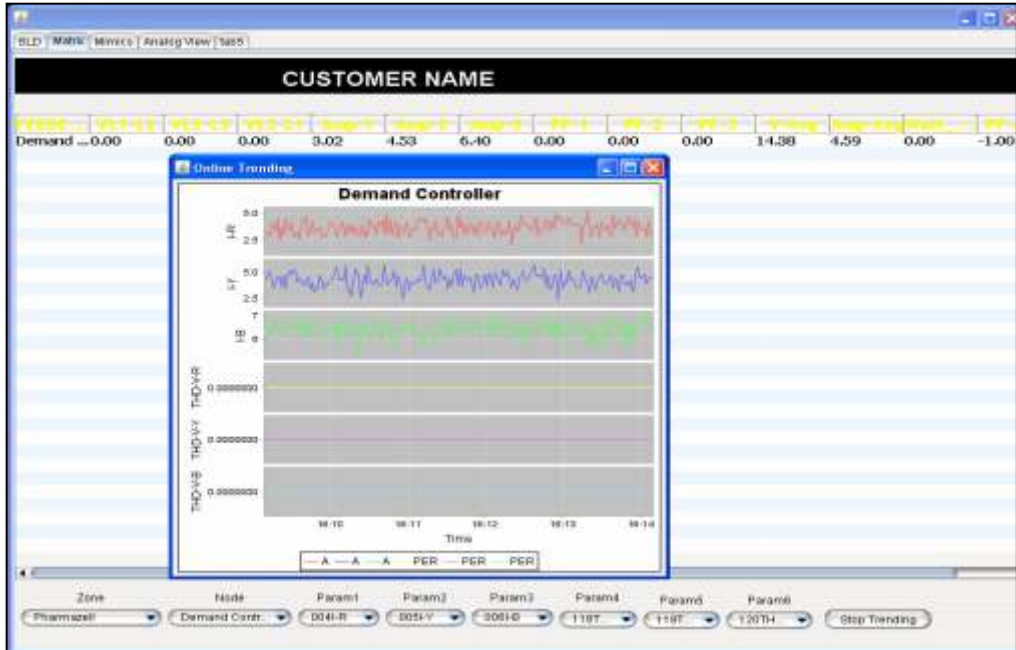
Above SLD Screen indicates the LIVE MFM or OFF MFM.

Matrix Screen (Trending)



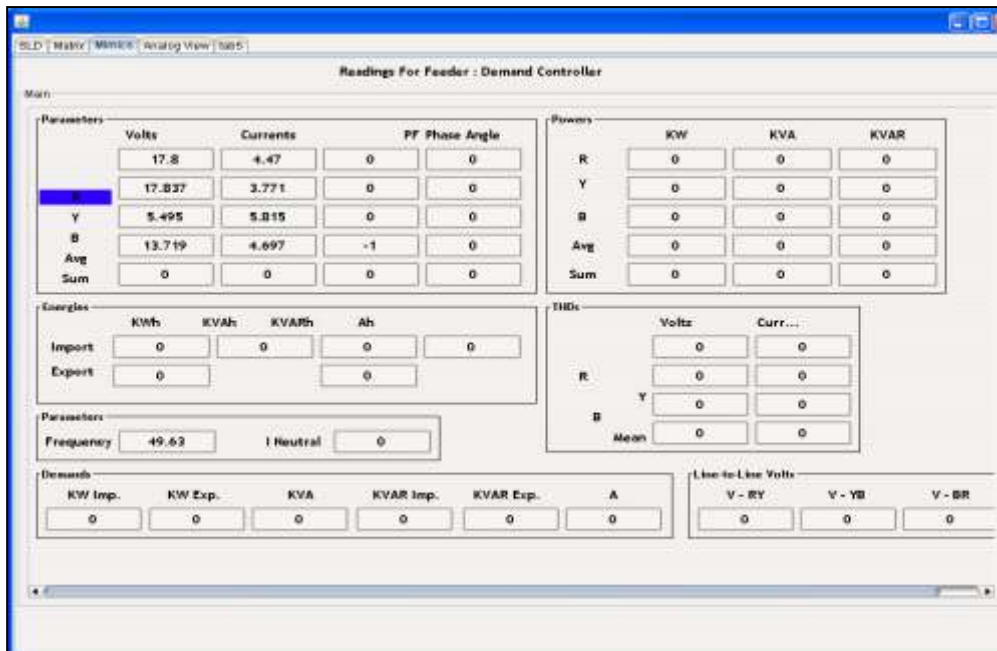
Above Matrix Screen indicates the live parameters sampling & selection for live Trending.

Matrix Screen (Trending)



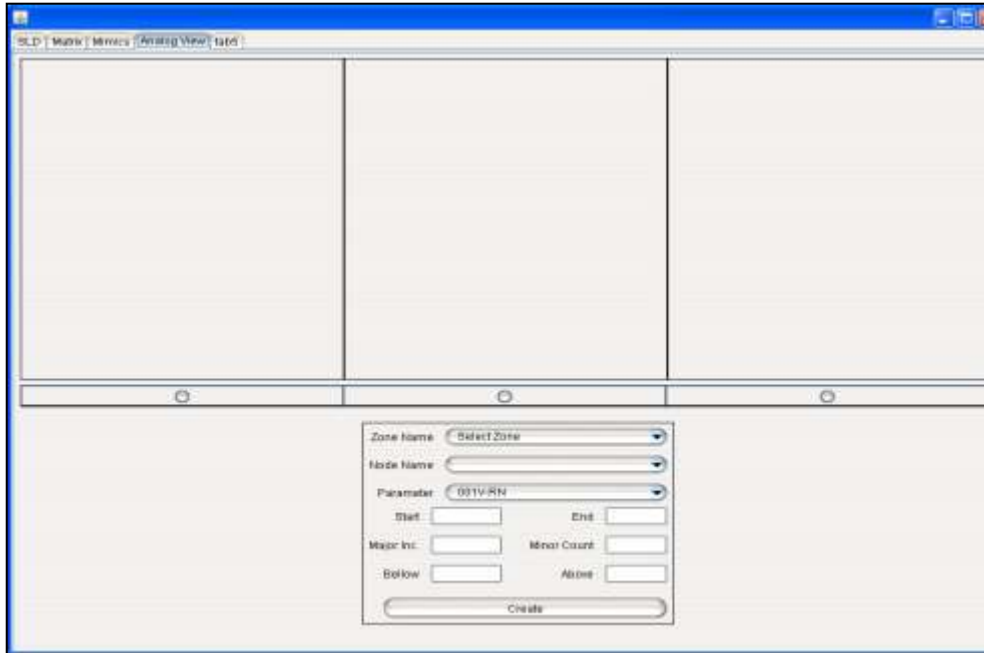
Above Matrix Screen indicates the live (runtime) Trending of parameters. For Save this Trending use right click and Save as PNG/JPG format also.

Mimics



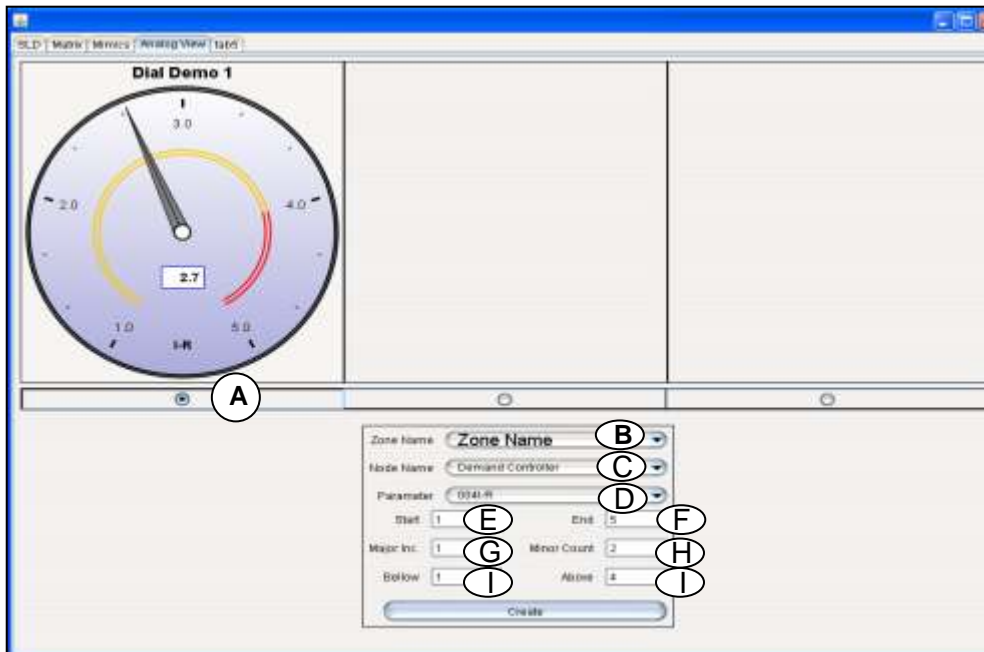
Above Mimics Screen indicates the live sampling of parameters.

3 Analog View



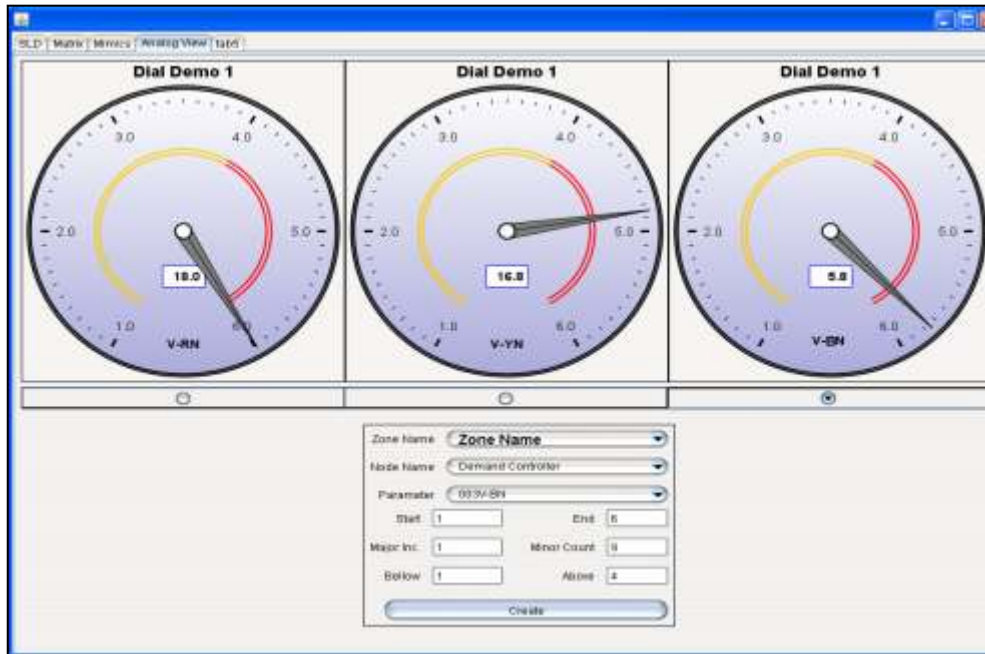
Above Analog View Screen Indicates live sampling parameters On Analog Mode.

Analog View Steps



A. Select the 1st View. **B.** Select Zone Name **C.** Select Node Name **D.** Select parameter from the list. **E.** Enter the Start & End Numbers Which is appears on Dial. **F.** Enter the Major Inc. for starts value. **G.** Enter the numbers of lines between two pick number. **H.** Below – Display Green color Indicates below (Low) of your entered number. **I.** Above – Display Red color Indicates above (High) of your entered number. Then Click On >>>Create Button.

Analog View

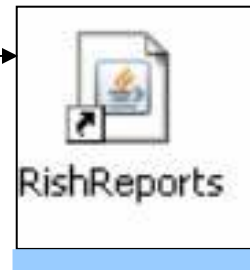


As per completed Steps A to I, Above Analog Views Screen Indicates live sampling parameters On Analog Mode in runtime mode.

Starting the RishReports

Steps for starting “RishReports” reporting tool for generating reports and historical trends process:

Click on this **RishReports** icon which is on your desktop screen.

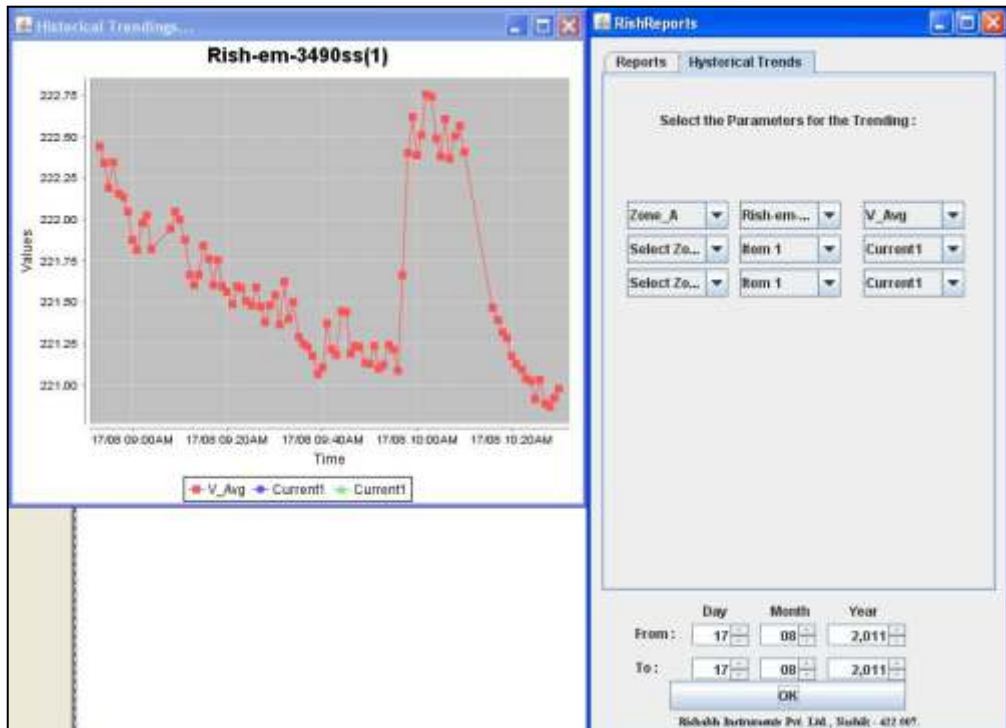
The RishReports application window. It has two tabs: 'Reports' and 'Historical Trends'. Under 'Select a Report:', there are several radio button options: 'Network Details' (selected), 'Analytical Report with interval: 1 min.', 'Hourly Consumption for a Node for a Day', 'Nodewise Daily Consumption Report', 'Nodewise Monthly Consumption Report', 'Total Consumption between Two Dates for a Node', 'Shiftwise Consumption Report', 'Feeder Consumption in Rs. Rate: 1.00 /kWh', and 'One Day Reading Report'. Below these are 'Select Zone:' and 'Select Node:' dropdown menus. At the bottom, there are date pickers for 'From:' and 'To:' (Day, Month, Year) and an 'OK' button. The footer text reads 'Rishabh Instruments Pvt. Ltd., Nashik - 422 007.'

Here are all reports you want see. Select one and select date, click on OK button.

You will get below Report Screen. You can also – Save, Print it

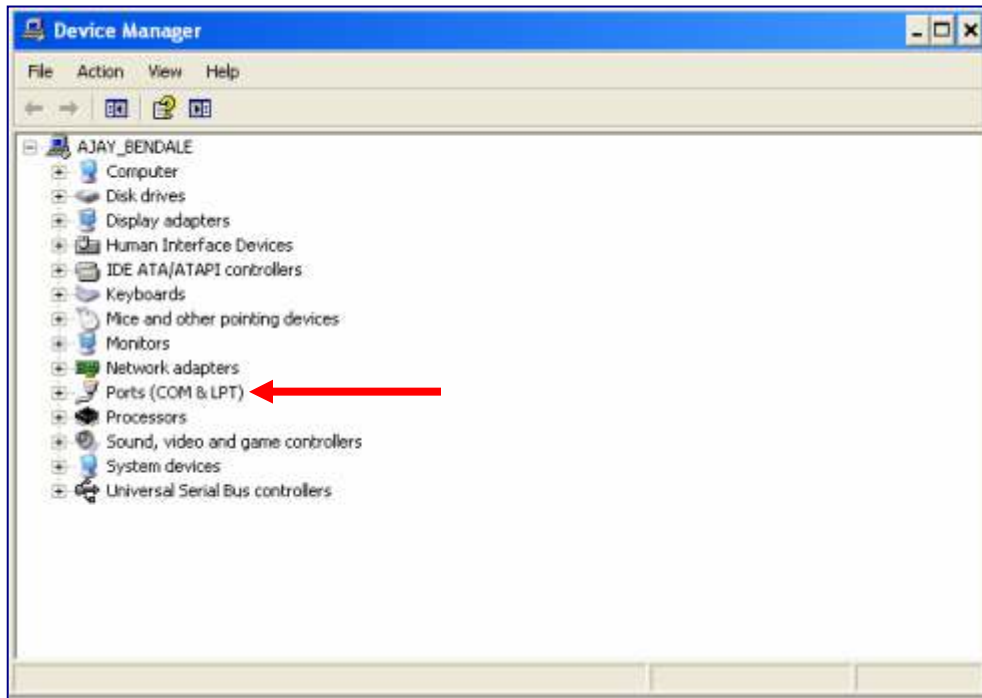
A screenshot of the 'ANALYTICAL REPORT' screen. It displays a table with columns for 'Date', 'L1', 'L2', 'L3', 'L4', 'L5', 'L6', 'L7', 'L8', 'L9', 'L10', 'L11', 'L12', 'L13', 'L14', 'L15', 'L16', 'L17', 'L18', 'L19', 'L20', 'L21', 'L22', 'L23', 'L24', 'L25', 'L26', 'L27', 'L28', 'L29', 'L30', 'L31', 'L32', 'L33', 'L34', 'L35', 'L36', 'L37', 'L38', 'L39', 'L40', 'L41', 'L42', 'L43', 'L44', 'L45', 'L46', 'L47', 'L48', 'L49', 'L50'. The report is titled 'Customer's Name' and 'Report Name - ANALYTICAL REPORT'. The instrument name is 'Rishabh-38888' and the for date is '17/08/2011'. The table contains numerical data for each of the 50 columns across multiple rows.

Historical trending of parameters- You can also zoom In /Out. It is past days trends of your parameters. Note: User must have to select three parameters from any nodes and zones.

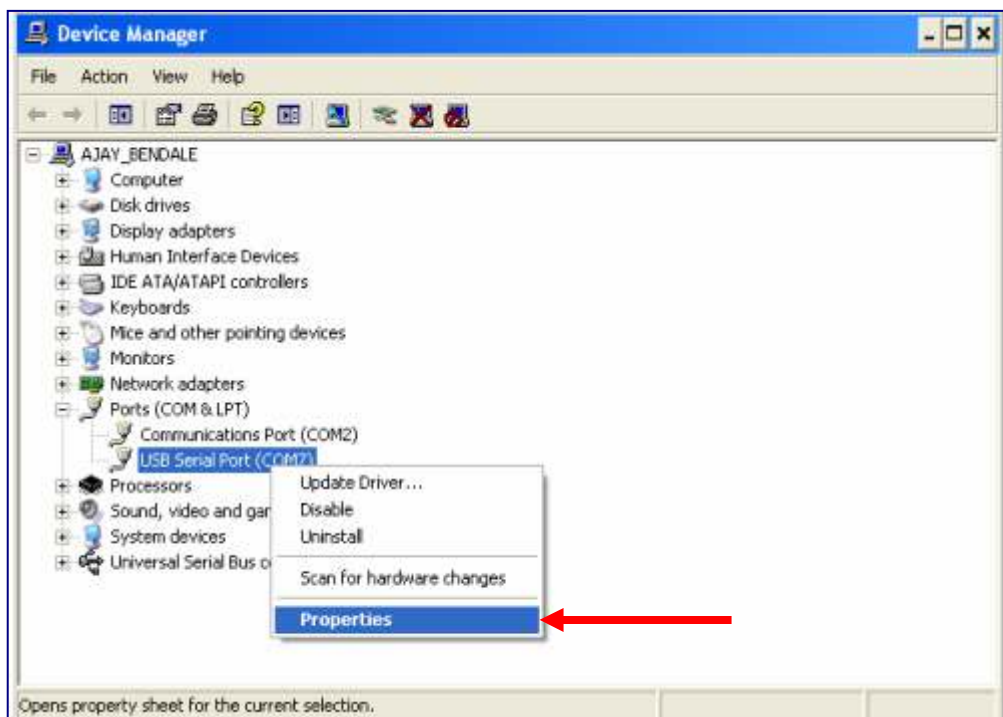


Annexure A

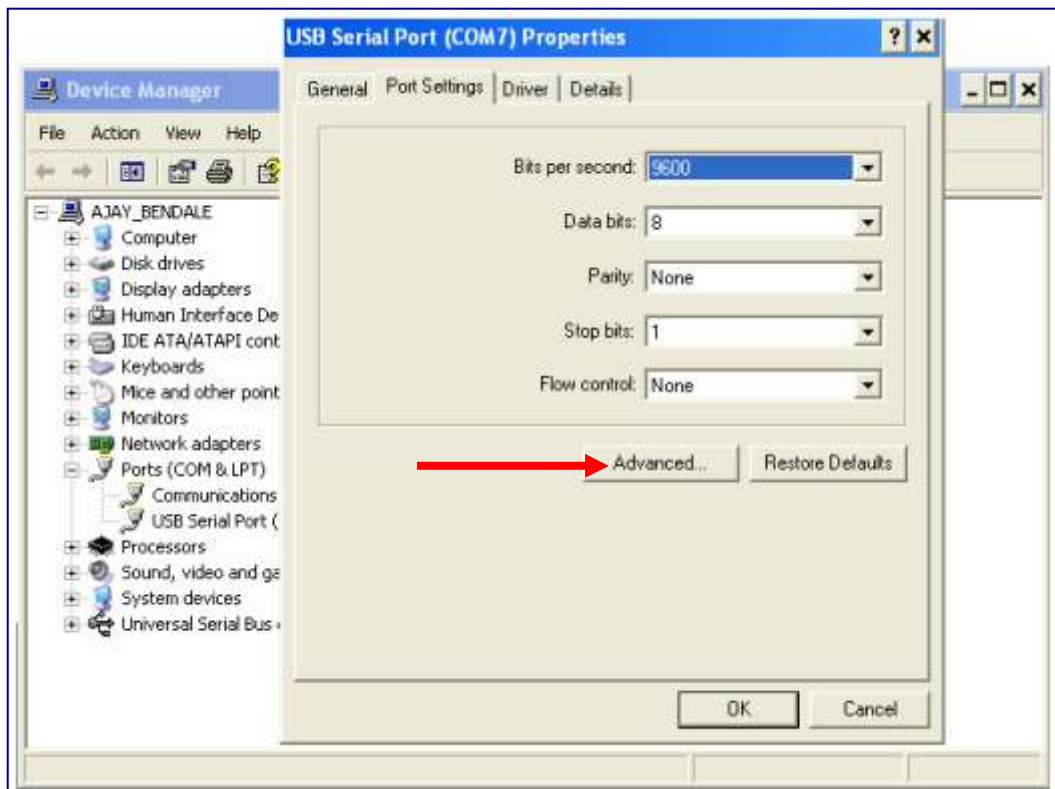
>>Press 'Start' >> Settings >> Control Panel >> System – Click ON 'Hardware ' Tab > Device Manager > appear Below screen



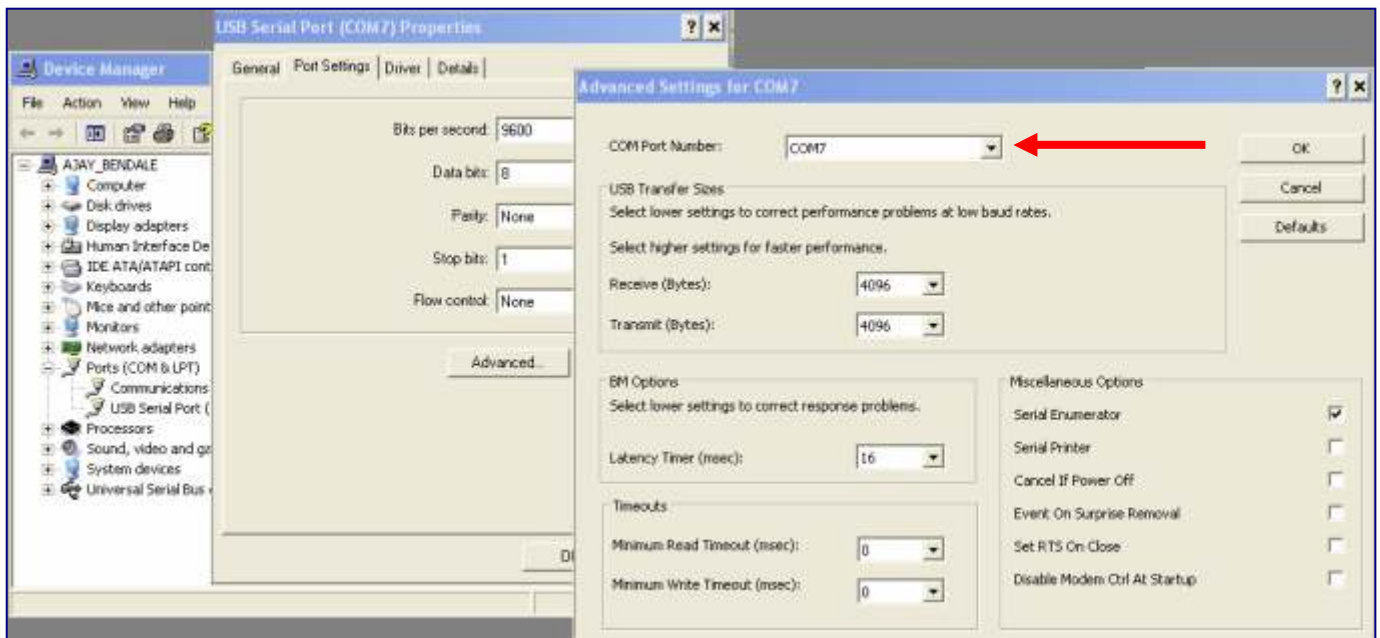
>>Right Click On 'USB Serial Port' at present. >> Click on **Properties**.



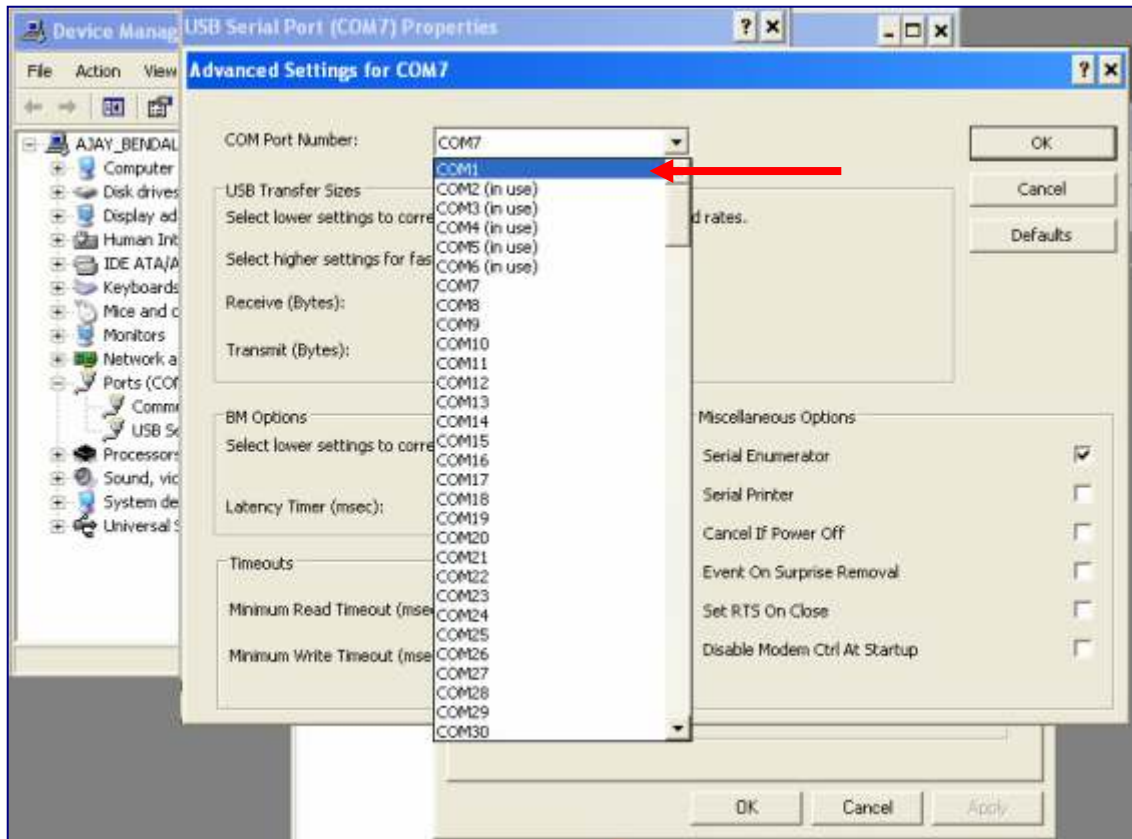
>> Click **Port Settings Tab**>> Click '**Advanced**' Button



>>Click on '**Com Port Number:**'

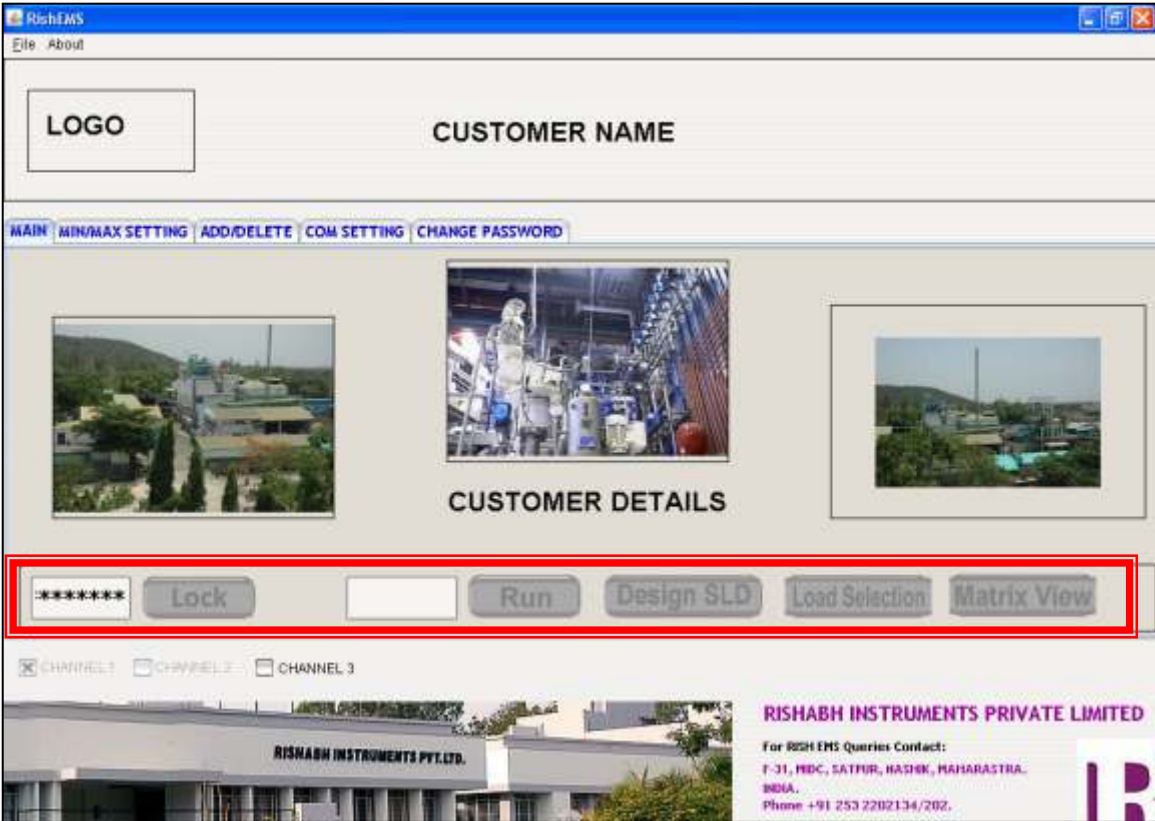


>>Select proper Port Here we selected 'COM1' port from option list. >> click on 'OK' >> Click on 'OK'. >> Close the Device Manager.



Annexure B

If RS485 Converter is Not Plug-in in USB Port or Any type of authentication error then RishEMS generates below Message. RS485 Converter must plug-in. Otherwise RishEMS cannot work, **getting you disable screen.**



Disable Screen

RISHABH INSTRUMENTS PRIVATE LIMITED

For RISH EMS Queries Contact:

**F-31, MIDC, SATPUR, NASHIK, MAHARASTRA.
INDIA.**

Phone +91 253 2202134/202.

marketing.ems@rishabh.co.in

www.rishabh.co.in

