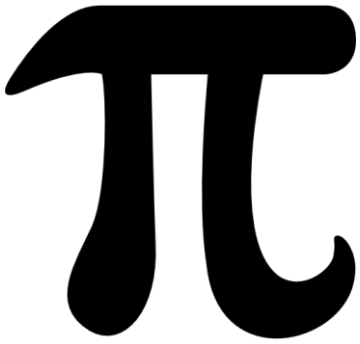
Smart Historian

Collect, Visualize and Analyse



ALLIED ELECTRICALS
Gala No.21, Lucy Indl. Estate, Near Blue chip Indl Estate,
Sativali,Vasai (E), Maharashtra, India.
vagish@alliedelectricals.com
9029901703

Table of Contents

1 Introduction

Smart historian is high end industrial data management software.

1.1 Features of Smart Historian Server

- Running on WinCC, Cimplicity and Wonderware Scada
- Support Redundant Server configuration
- Cyclic, Daily and Event based report
- Supports Win10, Win7 OS
- unlimited report
- Collect real-time data from OPC DA server (PLC, Scada)
- Store the data in user defined tabular format.
- Generate customize database table format with interactive UI
- Visualise data for management view.
- Consumes Less Database size.
- Minimum PC configuration required
- MySql support
- Web view on Chrome browser
- Trigger report from any PC from network

2 Smart Historian Architecture

Smart Historian can be used on same PC along with Scada or with ant dedicated historian PC on Network.

2.1 High level Overview

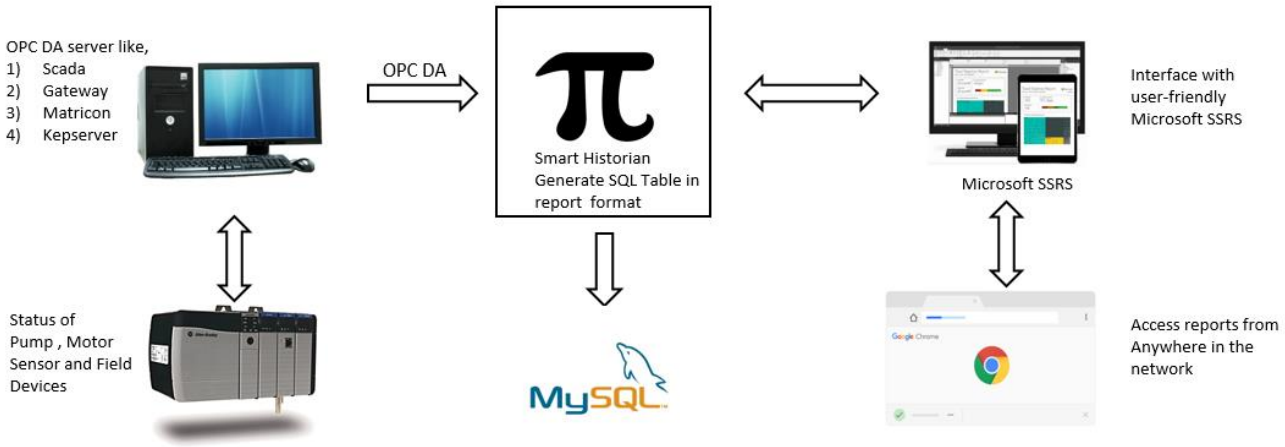


Figure 2.1-1: Smart Historian architecture

2.2 Device connectivity

Visual Connect supports OPC DA protocol, So it able to connect most of the scada like, WinCC, Cimplicity , Wonderware. Also with industrial software like matricon and Kepware .

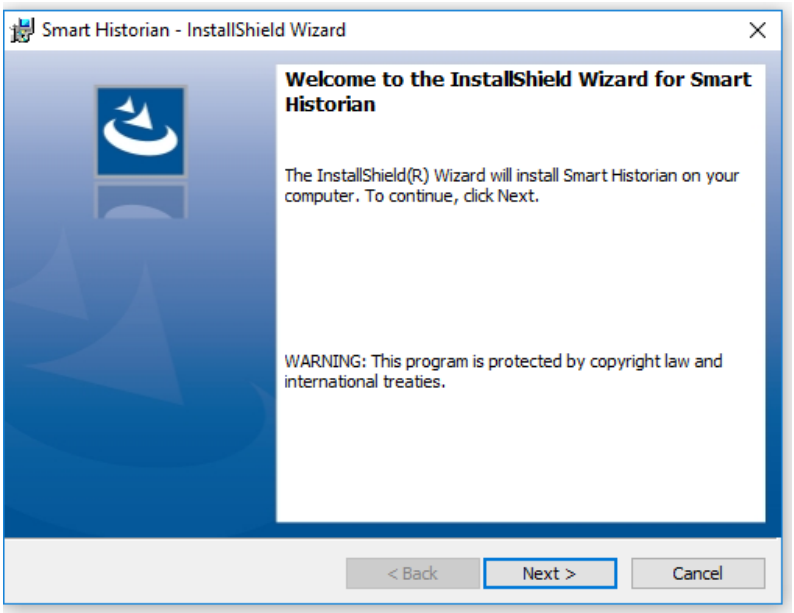
2.3 Installation of MySql and Smart historian

Step1: Install MySQL server

Download link for MySQL https://dev.mysql.com/downloads/mysql/

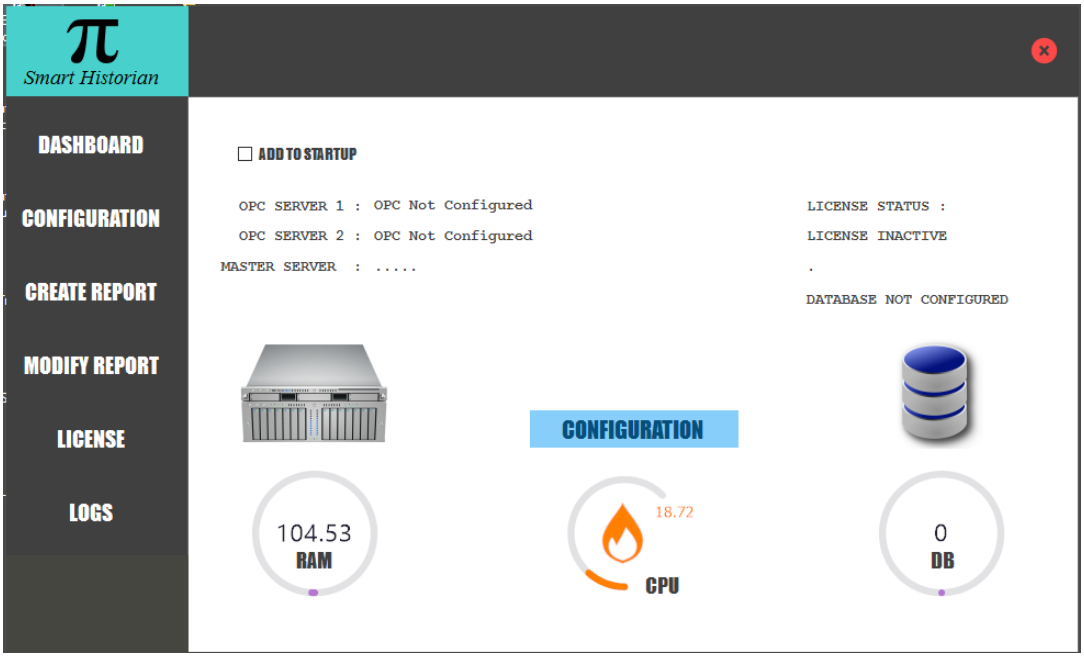
Install server and workbench both, also install ODBC connector for 32-bit version from https://dev.mysql.com/downloads/connector/odbc/5.3.html

Step2: Install Smart historian: Follow the instruction



2.4 Configuration of Smart historian

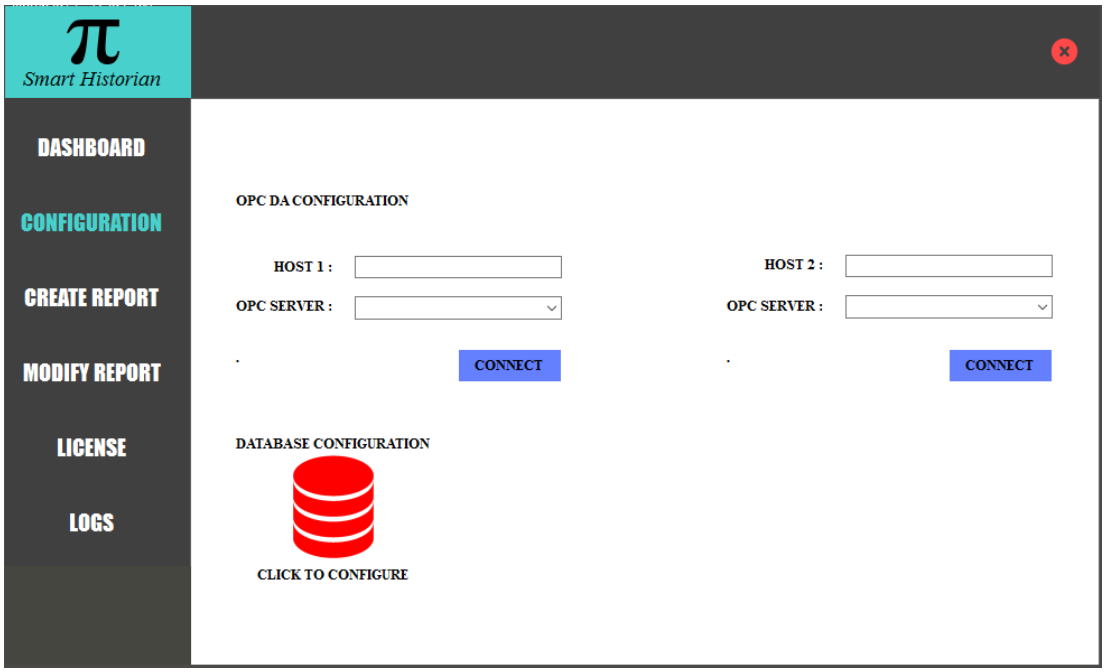
Below is the Dashboard for smart historian Server. Showing CPU uses and Connection status and RAM memory utilisation, active connection



2.4.1 Dashboard

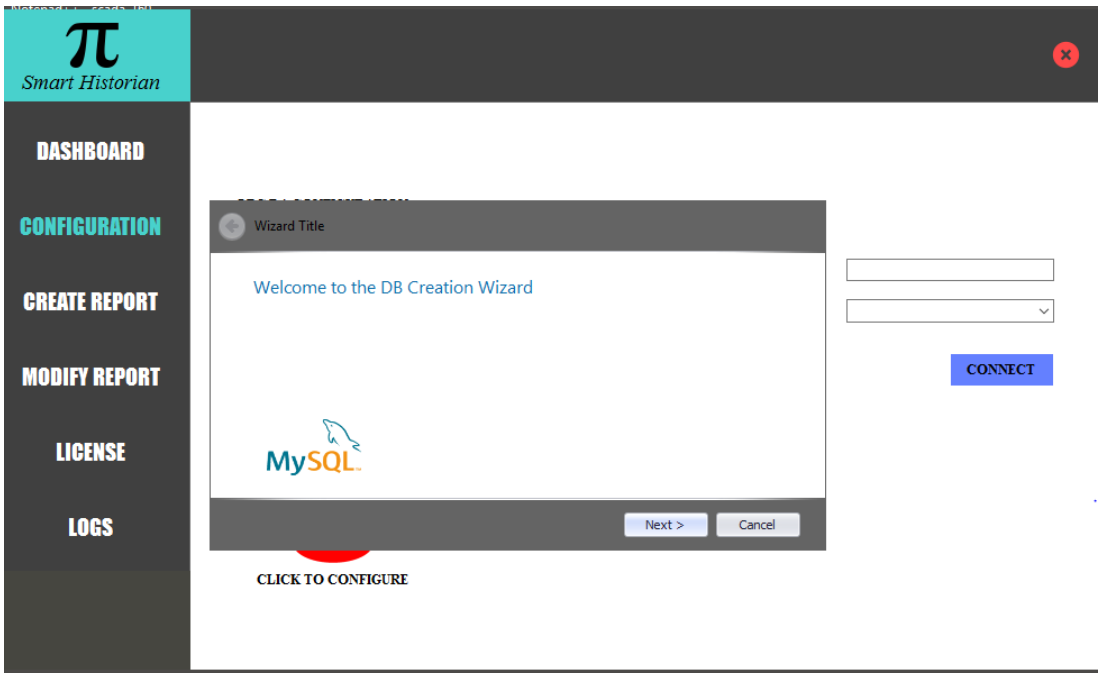
2.4.2 Licensing

Click on ***Database configuration*** to link connection with MySQL.

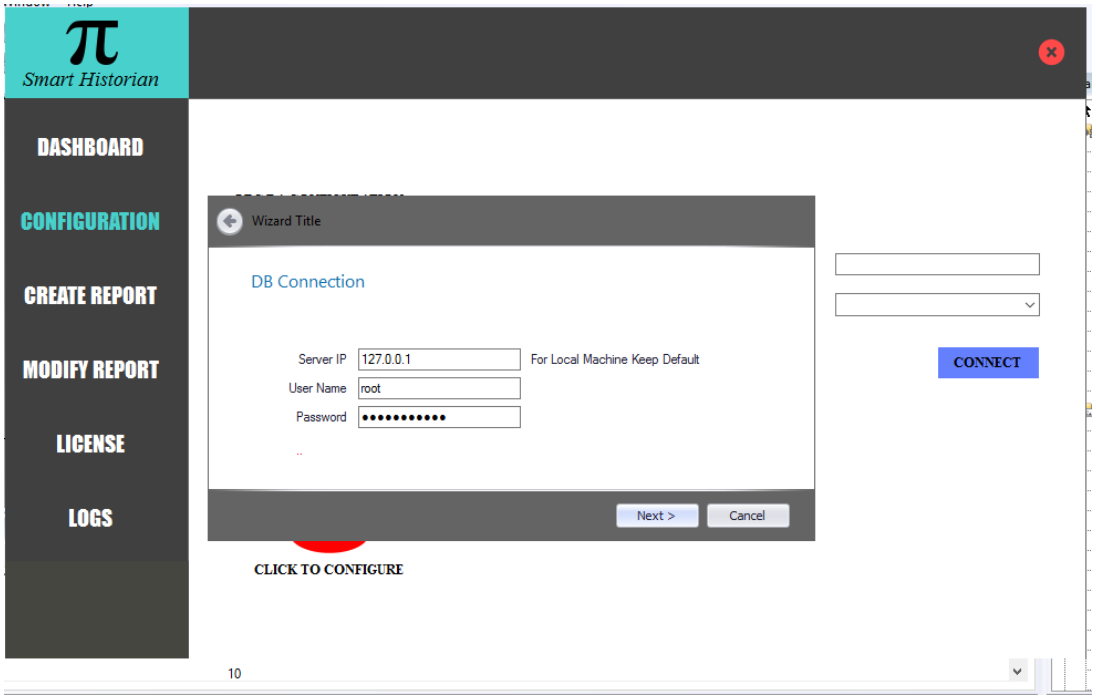


2.4.3 Configure database

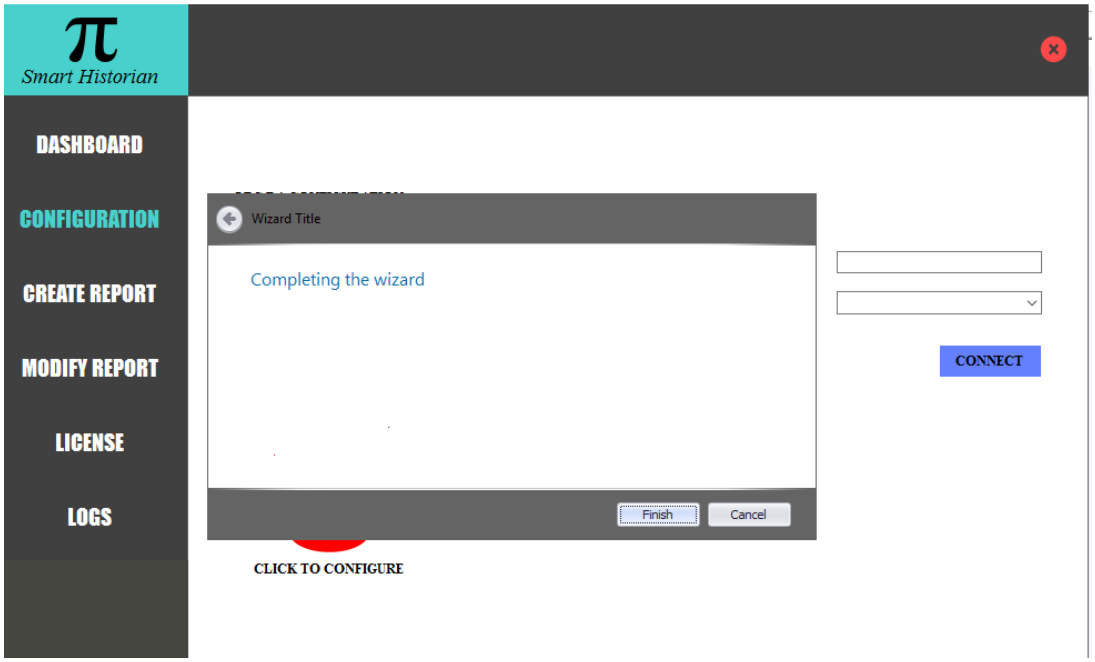
It will open **MySQL wizard**, follow the instruction



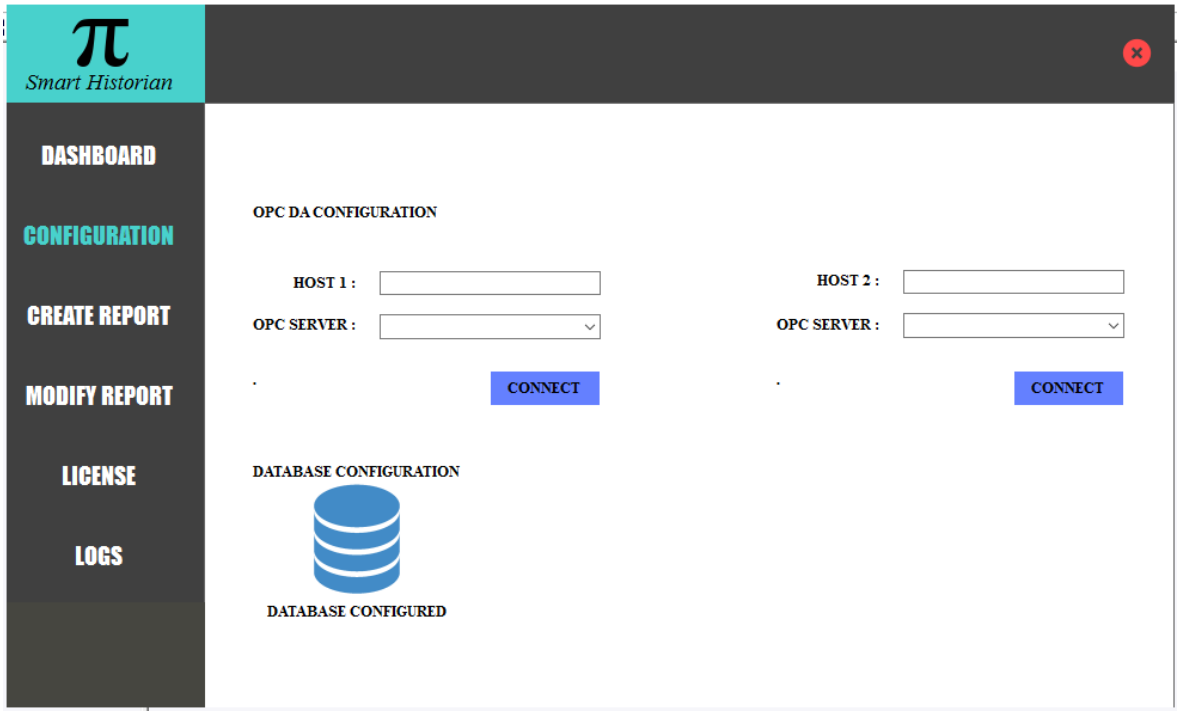
2.4.4.1 MySQL wizard



2.4.4.2 Login MySQL

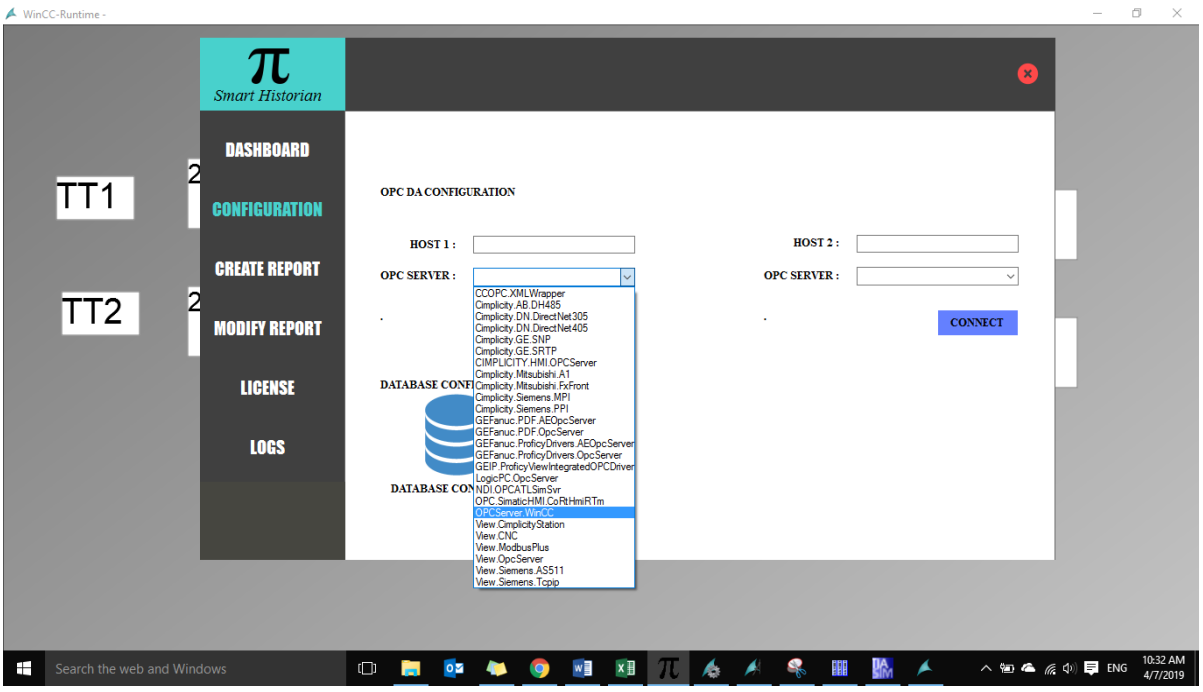


2.4.4.3 MySQL wizard complete



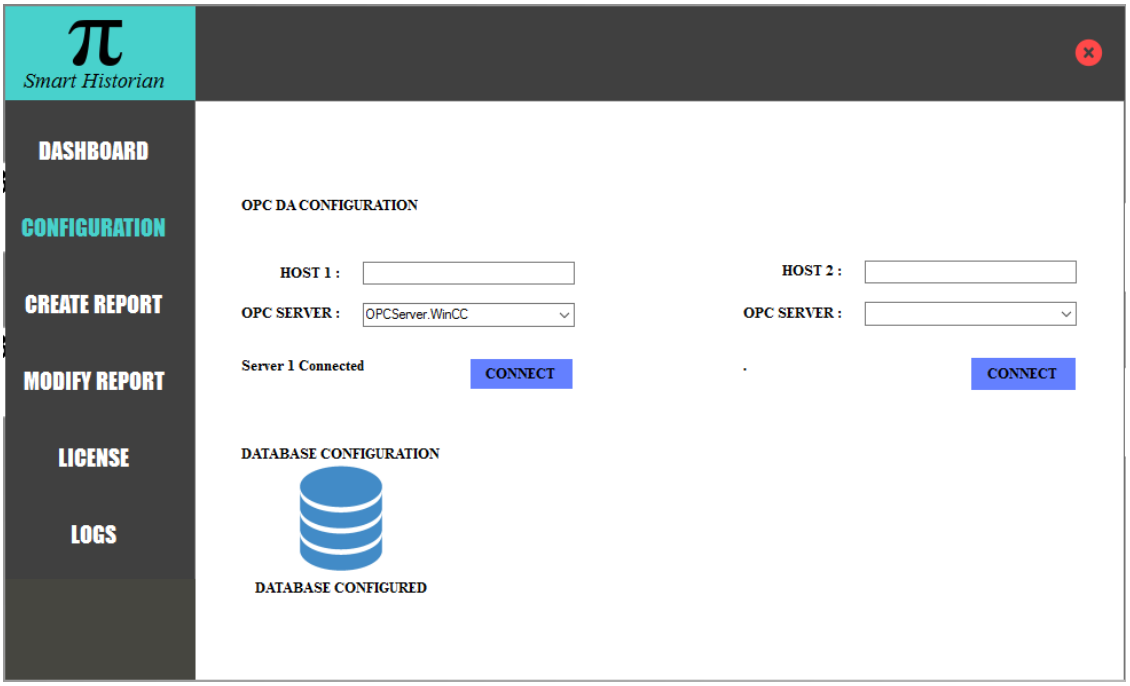
2.4.4.4 MySQL database configured

Browse the OPC-DA server from dropdown list. Select host name in case of LAN PC.

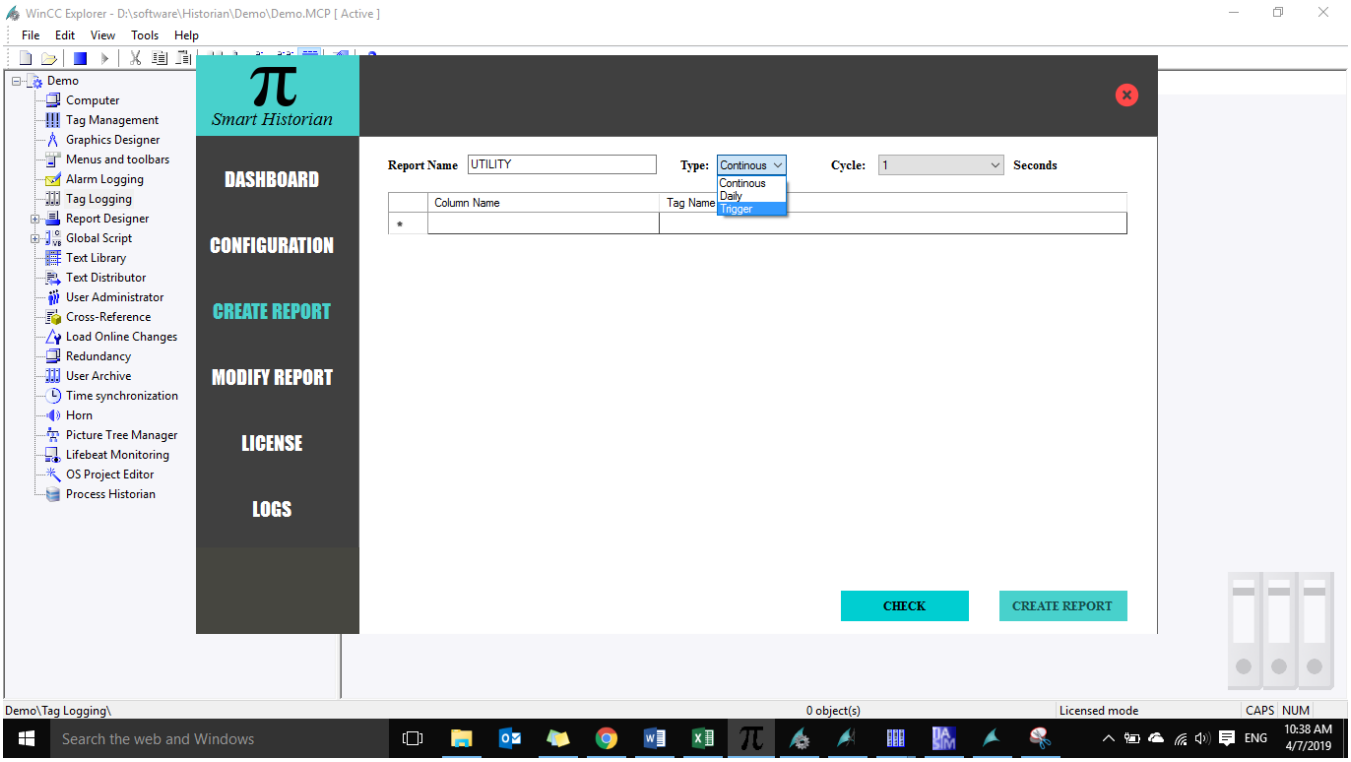


2.4.5 Select OPC Server from list

Click connect to make connection from selected server



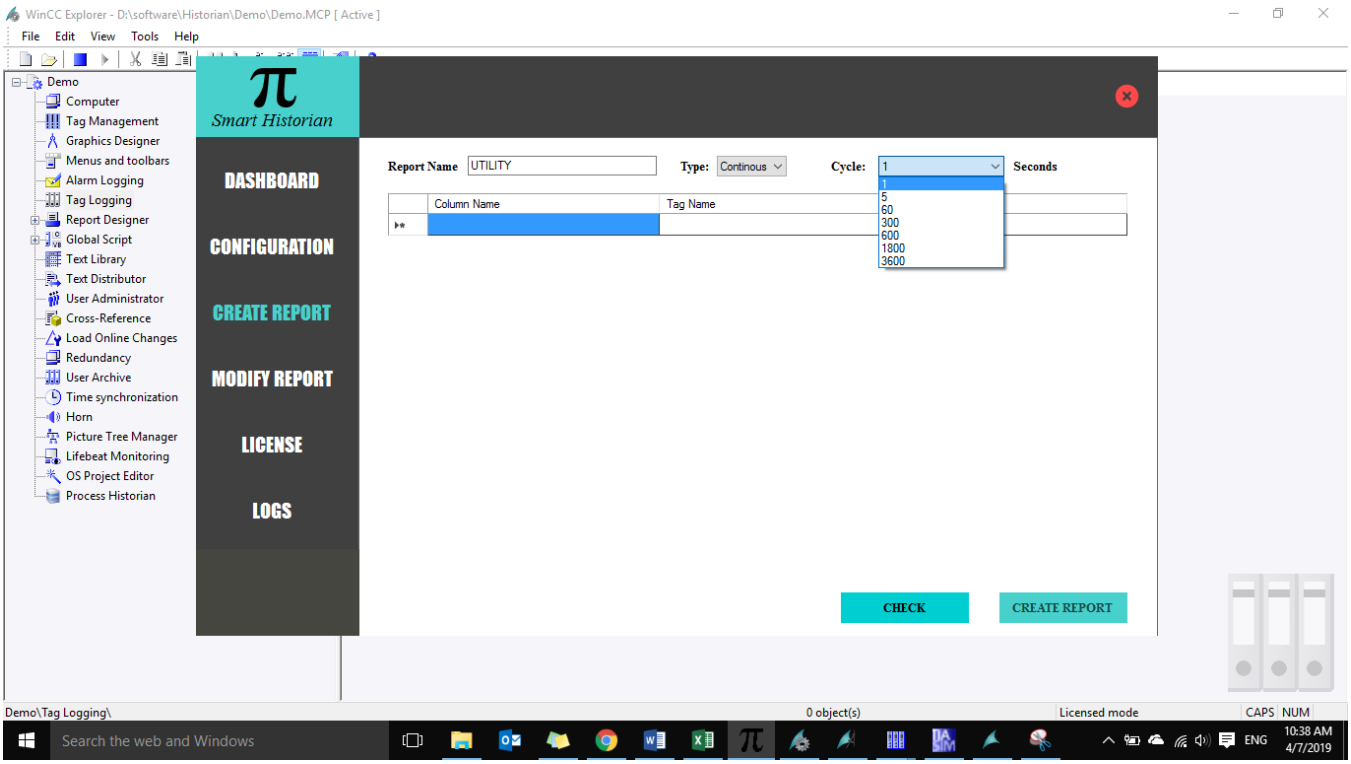
2.4.6 Server1 connected



2.4.6.1 Select attributes for report

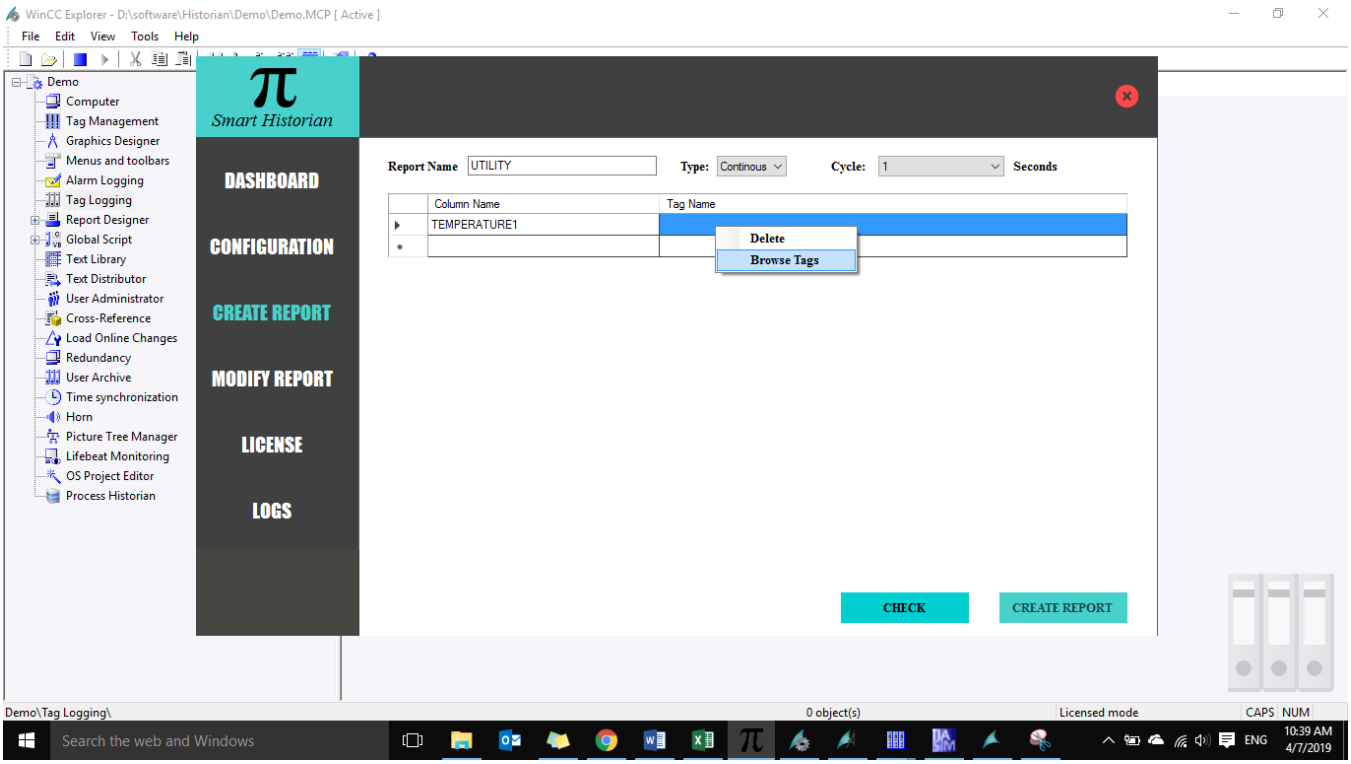
Following attributes is available

1) Continuous
2) Daily
3) Trigger based

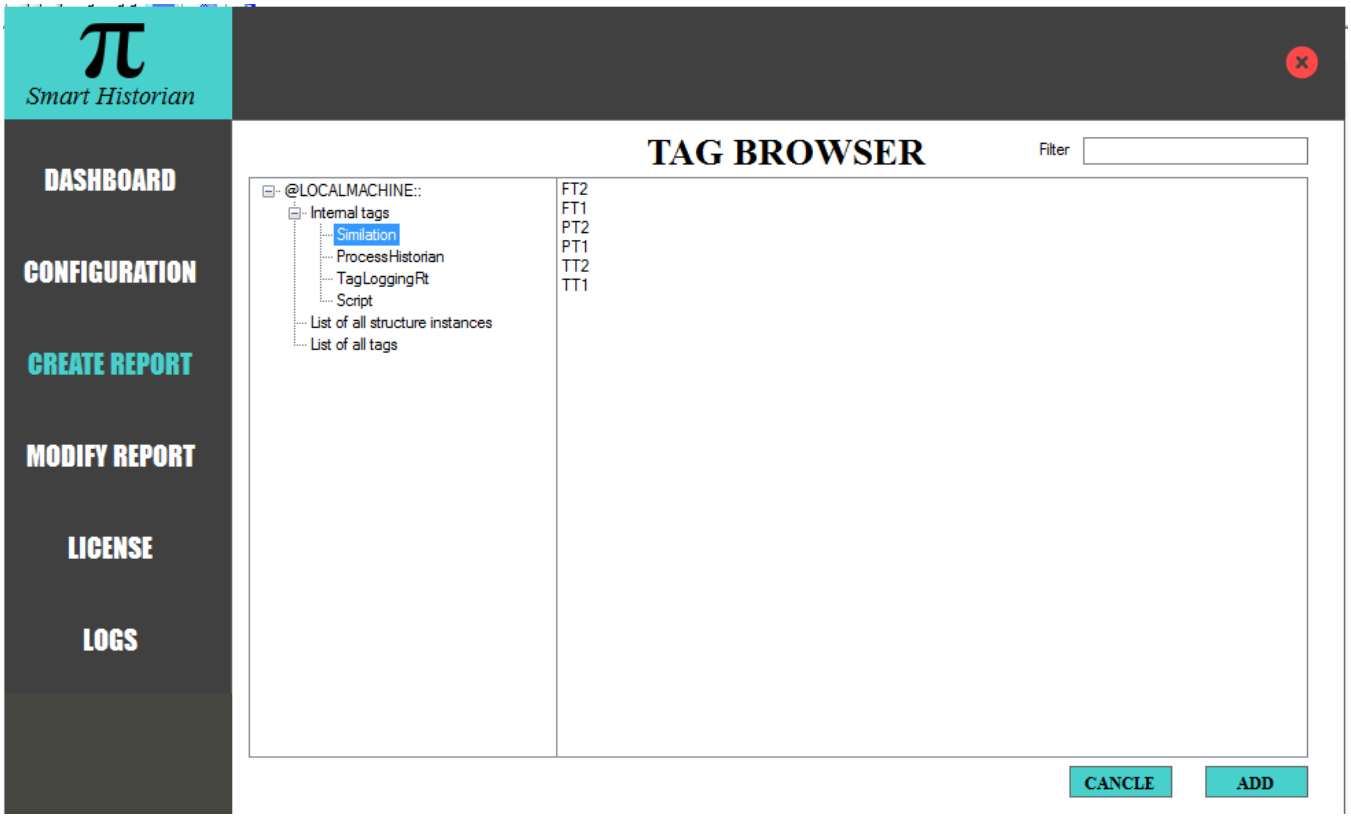


2.4.6.2 Select attributes for report

Browse tags or write down manually (like \\Demo\TT1.VALUE)

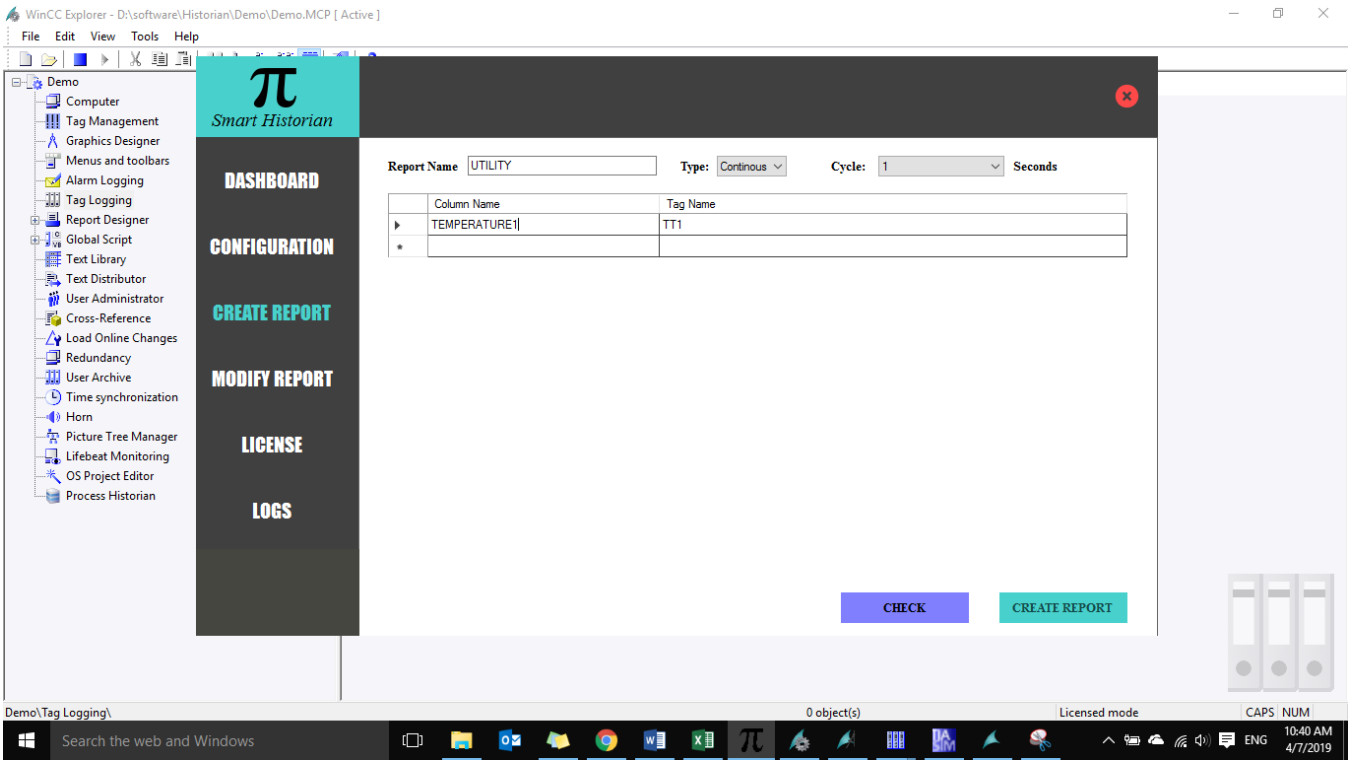


2.4.6.3 Browse tags or write down manually



2.4.6.4 Browse tags

Click **check** for real-time display

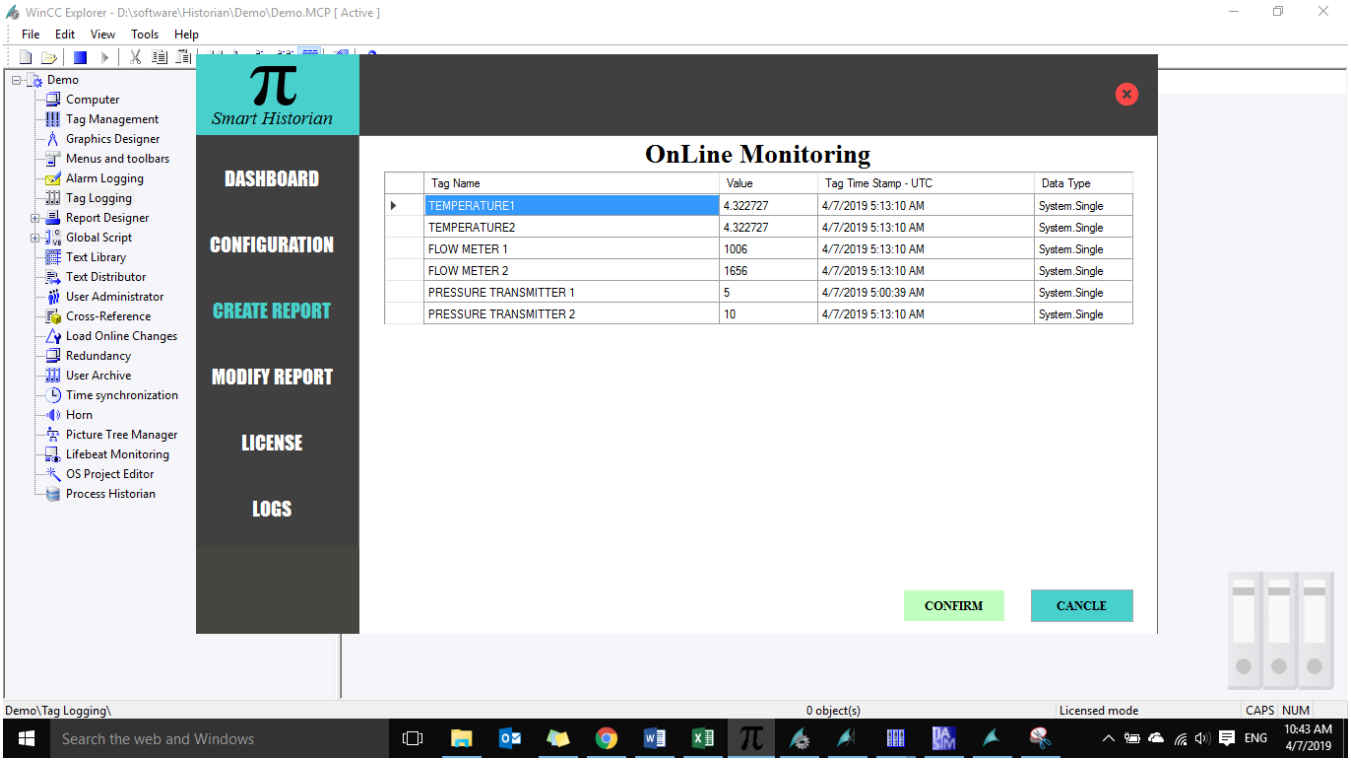


2.4.6.5 Check real-time values

Note:

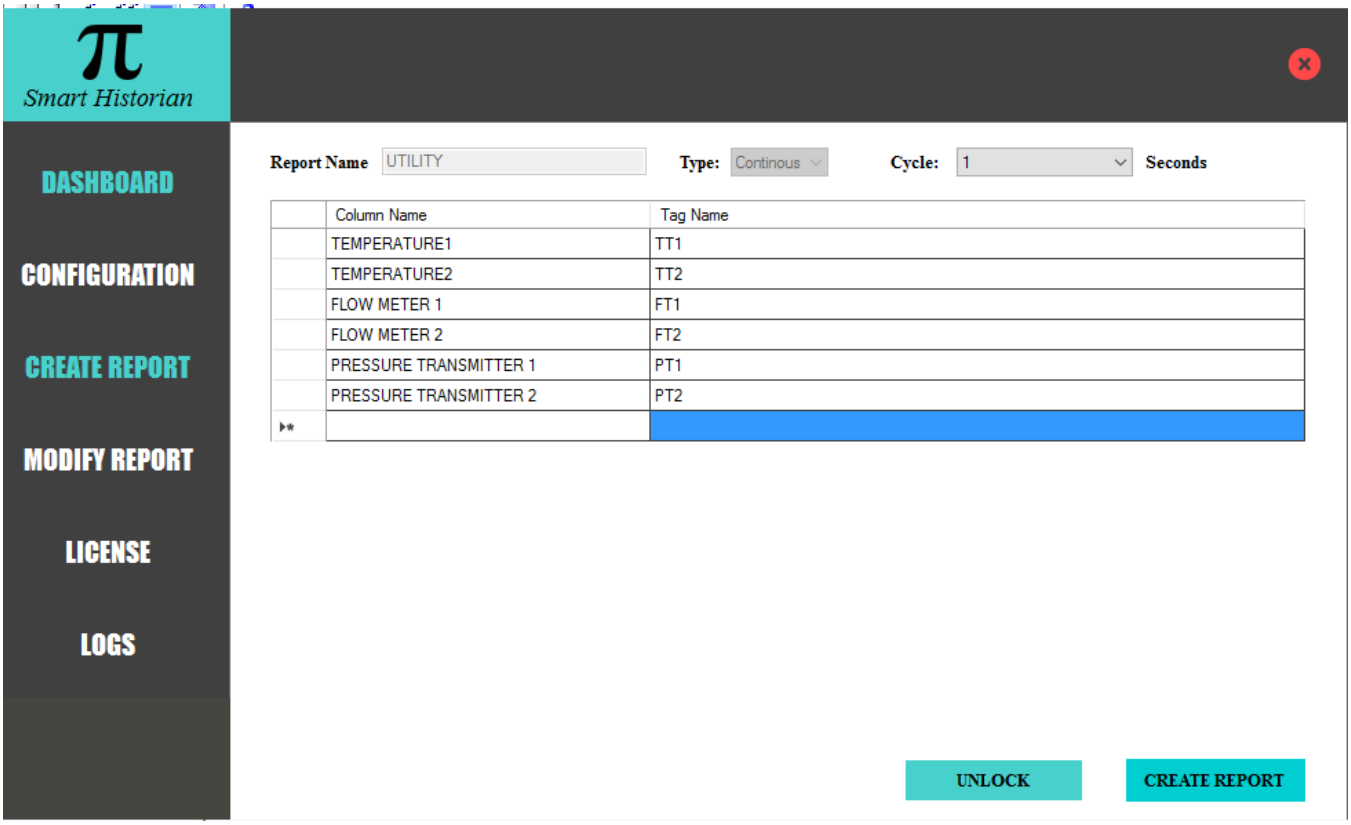
1) Do not use space or wildcard character for naming column name.

Click confirm



2.4.6.6 Check real-time values

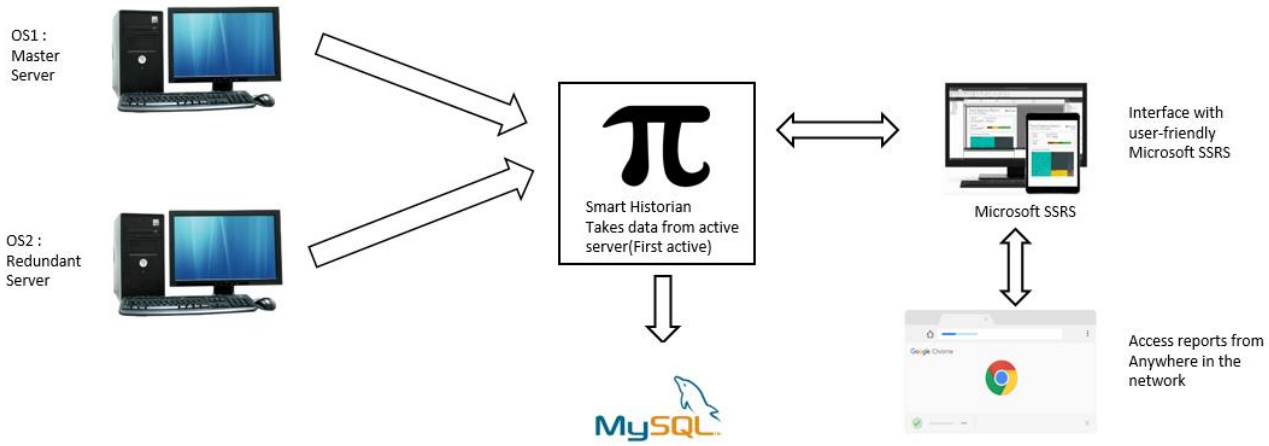
Click create report to generate table



2.4.1.7 **create report**

2.5 Redundant Configuration

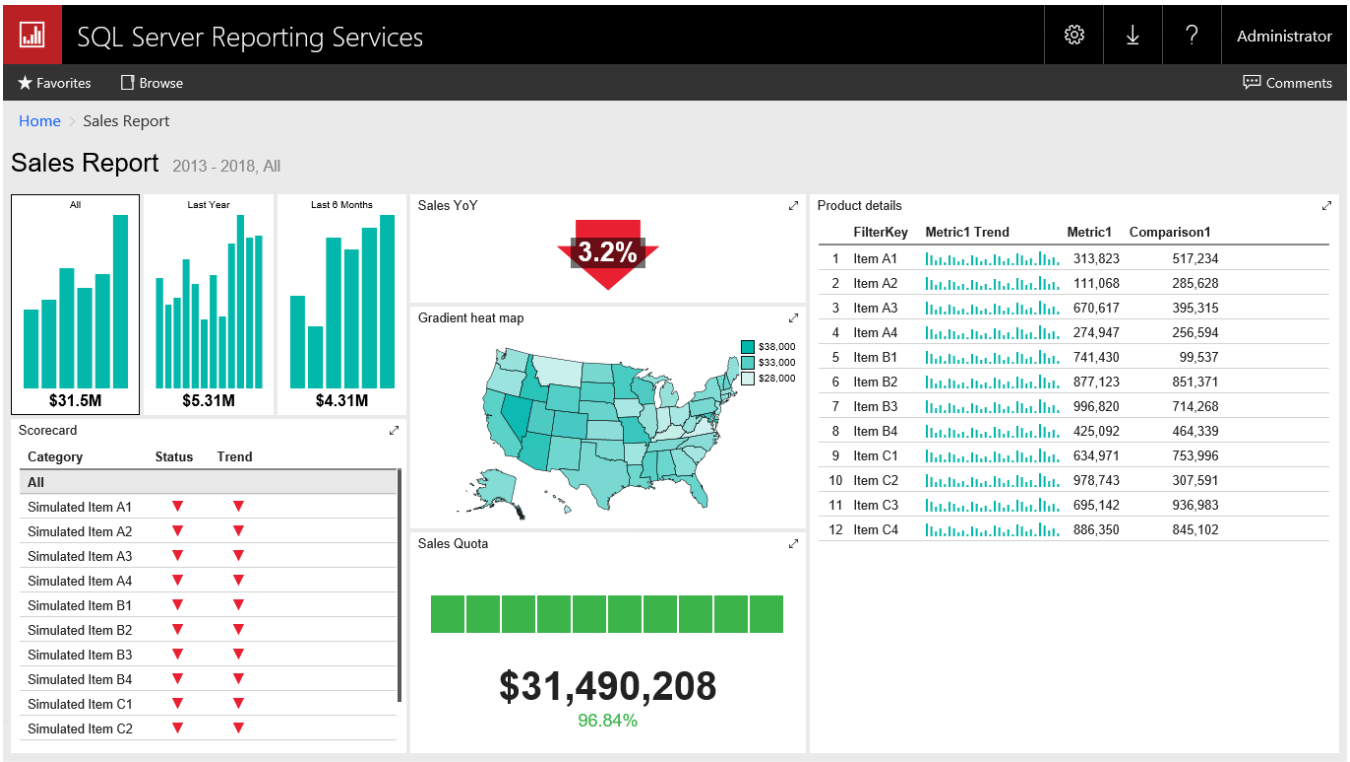
Smart Historian takes data from first active OPC server. If connection is failed, it will changeover to other server.



2.5.1 Redundant architecture

3 Microsoft SSRS

Front end development is done using Microsoft SSRS software. It is user friendly and widely used by automation engineers. It also support google chrome browser. Report can be triggered from any PC over the network using chrome.



3.1 Microsoft SSRS view

4. Licensing:

One time license without any limitations on creating number of reports.