X-Force OPC AE Client

OPC: An OPC is the interoperability standard for the secure and reliable exchange of data in the industrial automation space and in other industries. It is platform independent and ensure the seamless flow of information among devices from multiple vendors.

X-FORCE OPC AE CLIENT APPLICATION: OPC stands for Alarm Event. As its name suggest, it will get alarms from OPC and that will be thrown to the capture process or processed directly. User can configure channels through providing OPC server credential to establish connection, printer can be configured as it has to be provided to another machine. It also provides facility to configure ignore string with regular expression using various options. There can be omission of log or capture deleting schedule can be configured through UI. Channel(s) can be dependent on license authorisation.

Application Pre-Requisites

Before starting configuration of X-Force OPC AE Client, firstly we need to do major configuration.
1) OPC DCOM Configuration
2) Give Every One Rights to the folder where X-Force OPC AE Client application is installed. if user does not give sufficient privilege to the directory then application will exit automatically.
3) User have to Keep License file Named "ssmxforce.lic" in the root folder where application is installed. if there is not license file in the root folder or license file is not valid or expired application should exit automatically.
4) If any configuration is saved previously then application should load that configuration

- As per license OPC Channel Count feature, User should be able to configure number of channels from mentioned in license.

```
FEATURE AMS-CHANNEL-OPCAE 15.25.04.0000 31-Dec-2019 2 \
    HOSTID=94-18-82-08-9C-26 MAC ISSUER=""SSM InfoTech Solution
    NOTICE="" |  | ""| SIGN="0DV9HH2EAOAG1YAOY3JLXU5AGJJ0DZQSVR
```

Splash Screen

Splash Screen: A splash screen is a graphical control element consisting of a window containing image, a logo, and the current version of the software.
Splash screen typically used for notify the user that the program is in the process of loading. They provide feedback that a process is underway. Occasionally, progress bar within the splash screen indicates the loading progress. A splash screen disappears when the application's main windows appears.

Splash screen progress bar percentage wise list of application processes are as below.

- 10% - It will check that application directory having sufficient privilege or not. Application will close with "You have not sufficient privilege to directory." Message if application doesn't have sufficient.
- 20% - It will check that application having valid license or not, if application not having valid license then application will close with "License file does not exist. Please contact SSM InfoTech Solutions Pvt. Ltd. to get the valid license." Message.
- 30% - It will create one XML file with name password.xml for login authentication. File will be created with default user name admin and ssmits password. Password will be encrypted in XML file.
- 40% - It will create one XML file with name ApplicationPriority.xml for application configuration like log priority, delete log file configuration, delete capture file configuration and OPC Reconnect time. Default configuration for log priority is 3 and log and capture file delete are not enable.
- 50% - It will check that application having any channel no not. If application having any channel then it will connect with configure OPC server and fetch the data as per configuration of channel.
- 60% - It will check that application having any channel with printing enable. If printing is enable then application is start printing alarms on configure printer for specific channel.
- 70%,80%,90% - It is not having any process right now, in future if any feature are added then it will be used for that.
- Application will start

Configurator

Application Configuration: It is a basic configuration of application. It will having a configuration of log priority, delete log file and delete capture file.

Application Configuration window will be open from system menu, in system menu click on configuration. From configuration window user will be able to change default configuration.

Channel Configuration

Channel: A Channel is used to convey an information.

Below are list of channel configuration parameters.

- Channel Name: Name of the channel.
- Default Colour: Colour of the channel alarm line.
- Host Name: Name of machine or IP of OPC Server.
- User Name: User name of OPC Server machine.
- Password: Password of OPC Server machine.
- Domain: Domain of OPC Server machine.
- Reconnect Time: Reconnect time for OPC server connection in seconds.
- OPC Server: Name of the OPC Server.
- Browse OPC AE Servers: for browse all the OPC Server for configure host name.
- Connect: for connect OPC AE Server.
- Set Attribute: For Set OPC AE Server attributes. In simple term, User have to configure list of column names to be fetched from OPC server.
- OPC Server and Client on same System: set true if both the server and client on same system.
- OPC Data Field Configuration: set true for configure field of OPC Server.
- Source Column: OPC AE server column name.
- Size: Size of the specific source column.
- IncludeInPrint: set true for print specific source column.

Printer Configuration

Printer: A “Printer” is a peripheral device which makes a persistent representation of graphics or text on paper.

Below are list of fields of printer configuration.

- Printer Type: Type of printer like network of serial.
- Printer: Name of the printer.
- Port No: Port no on which printer is connected to print.
- Stop bit: Stop bits separate each unit of data on an asynchronous serial.
- Speed: The rate at which information is transferred in a communication.
- Flow Control: The extra input and outputs used on the serial device to perform this type of handshaking.
- Parity: Parity bit in the communication.
- Parity Replace: To replace the parity bit during Communication.
- Data bit: Two bytes are sent, each consisting of a start bit, followed by data bits.
- Input Length: The Length of the data while receiving.
- Output buffer size: Size of the input buffer For Receiving data.
- Input buffer Size: The Length of the data while receiving.
- EOF: To enable disable "END OF FILE".
- Discard Null: Gets or sets a value indicating whether null bytes are ignored when transmitted between the port and the receive buffer.
- Add button: for add printer configuration
- Test Page: For print test page.
- Clear button: for load default configuration.
- Save button: for save configuration.
- Close button: for close channel configuration.

Edit/Delete Channel Configuration

Edit Channel Configuration: User can edit channel configuring by click on edit channel menu. User can find edit channel menu by right clicking on particular channel.

Delete Channel Configuration: User can edit channel configuring by click on delete channel menu. User can find edit channel menu by right clicking on particular channel.

Ignore Message