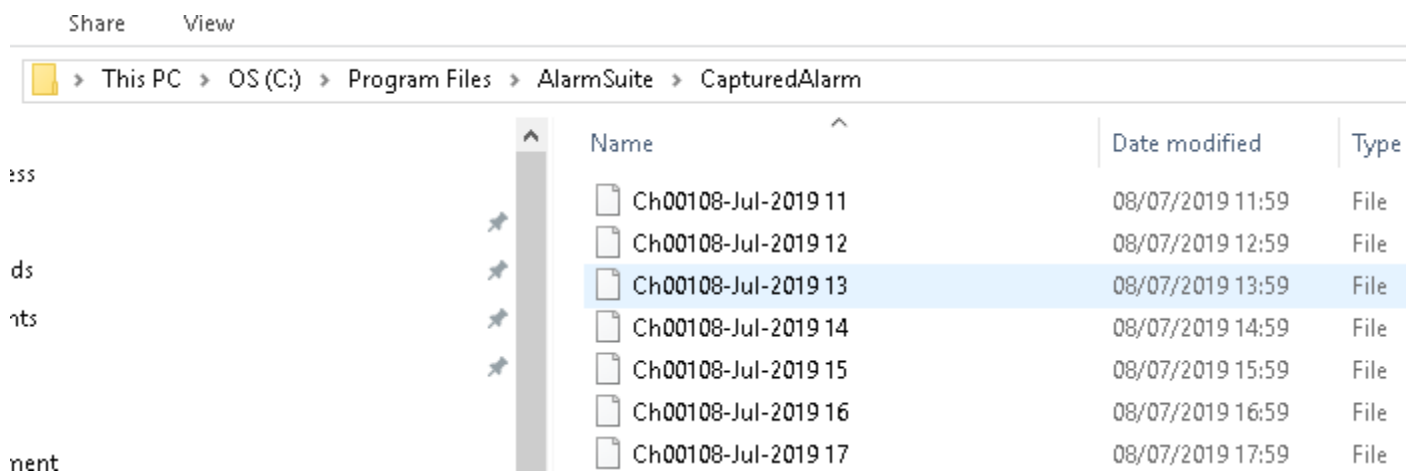# X-Force Capture Process

X-Force Capture process will capture the data from the DCS system and create hourly files and store the data in Flat files. Channel wise hourly files will be created which will be further used by X-force Data link application to dump the data in database.

The Data are with the DCS and it throws on the Printer port as logs of Plant Processing. As the AIMS system specifies to analyse and monitor the Alarm(s) it firstly need the data, this data is retrieved from this log through the mean of communication with different architectures. This whole process is carried out by the X-Force Capture process. Application will create hourly capture file for all channel. Data printing will be done channel wise. Naming convention will be <Ch><nnn><dd-MMM-yyyy> <HH>. E.g. Ch00112-Jun-2018 16

X-Force Capture Process get data through network or serial communication medium. Which can be from DCS, PLC/Triconex or OPC server. If there is any transmission failure and data stopped then it also generates mail to send on configured mail group. Application is able to change several attributes within itself i.e. swap port, Enable DTR/RTS and connection status.

Data transmitted through channels and that will be one or more than one. This overall configuration process is done through X-Force Alarm Web. It can receive data from DCS, OPC or Triconex.

Redundancy

During data capture in Capture process if application is not getting data from predefined port so at that time backup port
 will be used and application will read data from backup port which is defined during channel configuration in web portal and it will work as a redundant port .

Auto start all application

When Capture application is getting started it will check other application are running or not and if any application is not in running mode then it will manually start that application.

Below Application will automatically start when capture Process will get started.

1. DataLink Process

2. Server Application

3. Scheduler Application

4. Computed Alarm Engine

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 is not having any process right now, in future if any feature are added then it will be used for that.
- 40% - Connect to the data base and check it connection ,If there will be issue in DB connection then application will close with "Please do the proper database configuration." Message
- 50% - To check application version with stored version of application in database.if its not same then application will close with"application is not compitable with database version.
- 60% - It will check liencense validity it is expire or something then application will close with "License Validity of this application has expired. Kindly contact SSM Infotech for License Renewal." Message and Last login will update in tbl_Info_Server table.
- 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.

Capture Process Screen

The Data are with the DCS and it throws on the Printer port as logs of Plant Processing. As the AIMS system specifies to analyse and monitor the Alarm(s) it firstly need the data, this data is retrieved from this log through the mean of communication with different architectures. This whole process is carried out by the X-Force Capture process. Application will create hourly capture file for all channel. Data printing will be done channel wise. Naming convention will be <Ch><nnn><dd-MMM-yyyy> <HH>. E.g. Ch00112-Jun-2018 16

System manager menu will display all the created channels and on click of channel.
it will display data capturing through particular channel and its configuration parameters.
Below is the parameter description for the main window of capture process.

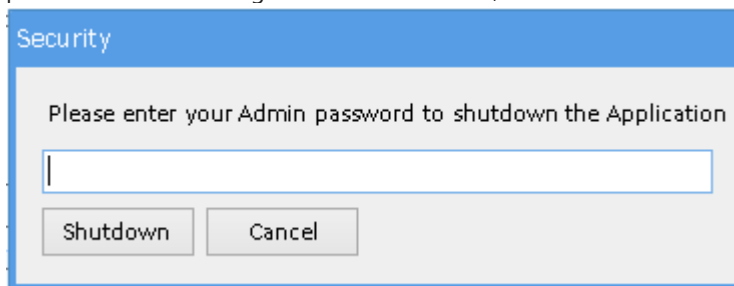| SR NO	FIELD NAME	DESCRIPTION
1	Channel Name	Display the name of the selected channel
2	Port No	Serial / network Port on which data is coming from DCS end
3	Local IP	IP of the Local / AIMS System
4	Remote IP	IP of the DCS system from when ae are fetching data
5	Backup IP	IP of the Backup System
6	Connected/Disconnected	Status of the channel

7	Enable option	Will allow to change the serial default parameter like CTS, DTR, CD, etc.
8	Apply	Apply the changes while capturing the data.

- · To Exit the system, go to system menu and select Exit option.
- · To open Help, go to Help menu and select View Help menu.
- · Select the capture application icon in notification tray where below listed 4 options are available.

SR NO	FIELD NAME	DESCRIPTION
1	Restore	Display the application in maximize form
2	Minimize	Display the application in minimize form
3	Shutdown	Exit / close the application
4	Cancel	Close the context menu

-
- On click of Shut down, it will open form as mention in below image which will ask for AIMS system
  password. After entering the correct Password, it will allow to exit the application.

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- If Wrong Password is entering, it will not allow to exit the application.

Database Configuration window

Below are the parameters for database configuration. Those needs to be provided for database connectivity.

- Server Name   : Name of the SQL Server / instance
- User Name   : Name of the User
- Password   : Password of the SQL Server for the given user
- Configuration Database   : Configuration database name
- Database Name   : Data database name