Contents

🔲 X-Force Datalink Process
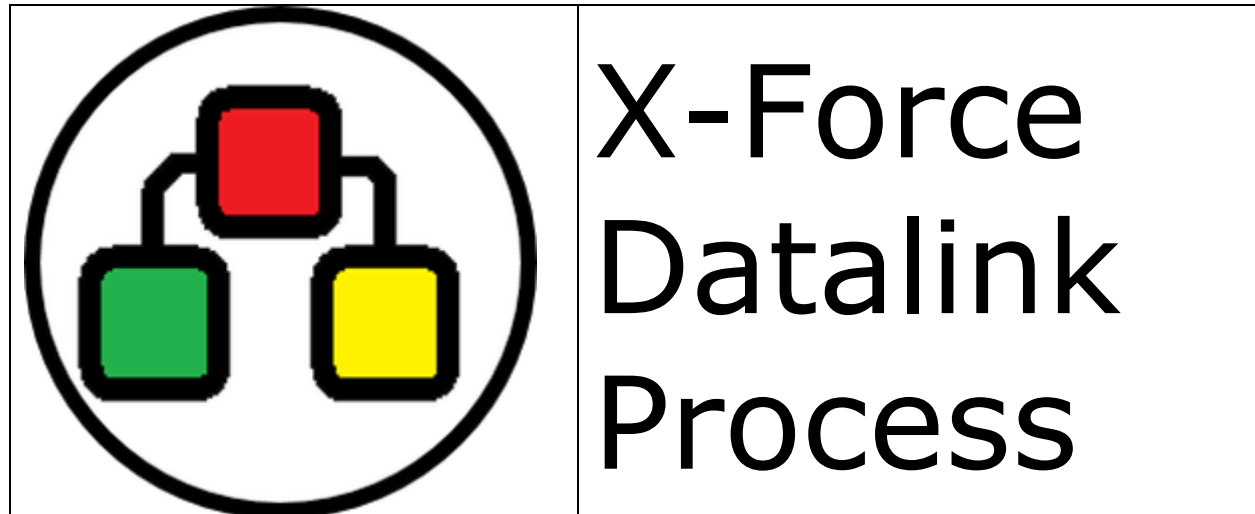
After configuring alarm(s) in X-force Alarm Configurator, it must be processed by Data Link which utilizes alarm configuration to segregate data properly and dump it in database that allows user to do more analysis in effective way and used data by other applications to generate production Report, to Send notification in Form of SMS, DO &PLC outputs, and emails etc... It also uses remove, replace, and ignore string processing while data processing.

1. Datalink not dumping data into database

1.1. Event / Symptoms

Datalink started successfully. However, it is not dumping the data into database.

<< What are the symptoms of problem>>

Datalink application's registry is updating, and pointer is increasing but the Capture file is not reading.

This issue occurs because of multiple causes.

1.2. Cause Identified

<<Description of Cause>>

- This issue occurs because if the Everyone's right to the "C:\Program Files\AlarmSuite\CapturedAlarm"

- XForce database is in recovery mode, and the datalink app not able to insert the data in XForce database **(For Static Version)**,

- In **Dynamic version** the datalink app not able to read the archive database name, and not able to insert data in the archive database.

- AIMS system is hang due to some application, which is using the entire RAM, and datalink do not have enough RAL to process the data and stop inserting data in the database.

<<Step-by-Step investigation carried out>>

- Check if system hanged or not, if not then restart the datalink to check if it is starting to read the data and dump into database. If yes, then restart the system.

- Check is the registry is updating the file name and pointer. If yes, then check data reading in the application UI. If you are getting the data in the UI of app, then the issue is with SQL database. Either the database is in recovery, emergency or single mode. Look for the solution in the Microsoft service center in web.
- Check is the capture file created for latest hours, if not then data not coming from the DCS.

1.3. Resolution

<<Description of Resolution. Steps carried out to resolve the issue>>

- AS in investigation carried out, the capture file is not creating then data are not coming from the DCS.

- If the data base in recovery mode.
  - Reasons Behind SQL Database Stuck in "In Recovery or Suspect" Mode
    - Following are the reasons that may cause an SQL database stuck in recovery mode:
      - A long-running transaction is rolling back
      - Transaction log file size is huge
      - Too many Virtual Log Files (VLFs) are inside the DB transaction log
      - There was a bug in the SQL Server, which is now fixed.
      - Database partition is full or absence of memory space
      - Failure of hardware
      - When log files got corrupted
      - Sudden power off in between a task
      - MDF files got damaged or corrupted
      - When the database id not properly shutdown. One or more unfulfilled database transaction is acting at that time.
  - Possible solution methods.

Method 1
ALTER DATABASE (Database Name) SET EMERGENCY GO ALTER DATABASE (Database Name) SET single_user GO DBCC   CHECKDB   ([Database   Name], REPAIR_ALLOW_DATA_LOSS) WITH ALL_ERRORMSGS; GO ALTER DATABASE (Database Name) SET Multi_user
Method 2
ALTER DATABASE (Database Name) SET EMERGENCY; ALTER DATABASE (Database Name) SET Multi_user EXEC sp_Detach_db (Database Name) EXEC sp_attach_single_file_db @Database Name = '(Database Name)',@physname = N'(mdf path)'

- If database in Emergency.
- If database in single mode.

1.4. Measures / Precautions