# Steps to Create SSIS Package for Datasafe ODS

1. Prepare the list of source tables which needs to be brought over to M360 server
2. Prepare DDL for M360 **STAGE**, **ODS** & **ARCHIVE** tables which would include source columns and control columns.

*Note: Archive tables are applicable if the source is a database and not a flat file*

* 1. **Control Columns on STAGE Table**
     1. [HASHBYTES\_VALUE] [VARBINARY](20) NULL
     2. [BATCH\_AS\_OF\_DATE] [DATETIME] NOT NULL
  2. **Control Columns on ODS Table**
     1. [CURRENT\_FLAG] [int] NOT NULL
     2. [HASHBYTES\_VALUE] [varbinary](20) NOT NULL
     3. [PROCESS\_FLAG] [int] NOT NULL
     4. [BATCH\_AS\_OF\_DATE] [datetime] NOT NULL
     5. [DW\_INSERT\_DATE] [datetime] NOT NULL
     6. [DW\_UPDATE\_DATE] [datetime] NOT NULL
  3. **Control Columns on ARCHIVE Table**
     1. [HASHBYTES\_VALUE] [varbinary](20) NOT NULL
     2. [BATCH\_AS\_OF\_DATE] [datetime] NOT NULL
     3. [DW\_INSERT\_DATE] [datetime] NOT NULL

1. Create STAGE, ODS & archive tables on M360 server with primary keys on STAGE & ODS table

**For STAGE table –**

CONSTRAINT [PK\_STAGE\_<stage table name>] PRIMARY KEY CLUSTERED

(

<column name> ASC,

[BATCH\_AS\_OF\_DATE] ASC

)

**For ODS table –**

CONSTRAINT [PK\_<ODS table name>] PRIMARY KEY CLUSTERED

(

<column name> ASC,

[BATCH\_AS\_OF\_DATE] ASC

)

1. Generate STAGE Package
   1. Populate [PACKAGE\_BUILD].[dbo].[DATASAFE\_STAGE\_ETL\_CODE]
      1. Insert SOURCE\_TABLE\_NAME & TARGET\_TABLE\_NAME

Execute Script file “*C:\AutoGeneratedSSISPackages\DATASAFE\_STAGE\_ETL\_CODE - Insert Table Names*”

* + 1. Update STAGE\_ETL\_CODE & ARCHIVE\_ETL\_CODE by executing script –

“*C:\AutoGeneratedSSISPackages\DATASAFE\_STAGE\_ETL\_CODE - Insert.sql*”

* 1. Populate [PACKAGE\_BUILD].[dbo].[DATASAFE\_STAGE\_PACKAGE\_XML]

Execute Script file “*C:\AutoGeneratedSSISPackages\Populate STAGE Package Build Tables.sql*” – step 1

* 1. Populate [PACKAGE\_BUILD].[dbo].[DATASAFE\_STAGE\_PACKAGE\_CODE]

Execute Script file “*C:\AutoGeneratedSSISPackages\Populate STAGE Package Build Tables.sql*”

* 1. Execute BCP scripts generated as a result by above step on Command prompt
  2. Open SSIS solution/project created for ODS and add the packages created for STAGE to the project

1. Generate ODS Package
   1. Create DATASAFE\_ODS\_Template.dtsx package to be used for loading below mentioned configuration tables.
      1. Right click on ETL\_ODS\_LOAD\_TEMPLATE.dtsx from the package solution and select ‘View Code’
      2. Copy the xml code and paste it on notepad
      3. Save the notepad as DATASAFE\_ODS\_Template.dtsx on and make sure to select “All Files” option for ‘Save as type’.
      4. Place the package created on C:\AutoGeneratedSSISPackages\ODS folder
   2. Populate [PACKAGE\_BUILD].[dbo].[DATASAFE\_ODS\_PACKAGE\_XML] & PACKAGE\_BUILD.[dbo].[ DATASAFE \_ODS\_PACKAGE\_CODE]

Execute Script file “*Populate ODS Package Build Tables - DATASAFE*” – except for ‘Generate BCP Script’ step

* 1. Generate BCP Scripts to be executed on command prompt
     1. Update the server name in ‘Generate BCP Script’ step in script file “*Populate ODS Package Build Tables - DATASAFE*”
     2. Execute the ‘Generate BCP Script’ and copy the result rows
  2. Execute BCP scripts generated as a result by above step on Command prompt
  3. Open SSIS solution/project created for ODS and add the packages created for STAGE to the project