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**Title: eCoaching\_Generic\_Load**

**SSIS Detail Design Document**

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|  |  |  |
| --- | --- | --- |
| Last Revision | Last Review | Description |
| 12/28/2017 |  | TFS 7854 – Encryption related changes for feed files and staging tables |

Prepared by: Susmitha Palacherla Date: 12/12/2016

Department, Location: Health Solutions Division

Approved by: Date:

**Change History Log**

| **Date** | **Change Description** | **Author** |
| --- | --- | --- |
| 4/11/2016 | 1.0 Initial revision. TFS 2470 | Susmitha Palacherla |
| 12/12/2016 | 2.0 Updates for TFS 4916. Adding an additional container for non-SEA Ad-hoc generic feeds where attributes will be included in the file. | Susmitha Palacherla |
| 8/14/2017 | 3.0 TFS 7105 – Upgrade to SQL Server 2012 | Susmitha Palacherla |
| 9/1/2017 | 4.0 TFS 7647 – Incorporate Attendance discrepancy (DTT) feed | Susmitha Palacherla |
| 12/28/2017 | TFS 7854 – Encryption related changes for feed files and staging tables | Susmitha Palacherla |
|  |  |  |
|  |  |  |

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# Overview

## Project Description

The coaching process is a standard process to facilitate consistent communication when a performance opportunity or reinforcement exists. It provides a method to make a determination of whether coaching is needed, when to initiate coaching and verification that the performance issue has been addressed. The Generic (General) feed(s) will be used for mass loading of general ecls that would have normally been submitted through the User Interface into the database. Utilizing the eCL work-flow, items can be tracked from start to finish to verify if items have been addressed.

## Document Scope

This document describes the load of the ‘Generic’ or general feeds that will be used to mass load ecls into the database. Once the reports are loaded into the database the logs are tracked through the workflow like any Coaching log entered from the web interface.

## Source Files

The table below shows the attributes for the ‘Generic’ reports.

Files are loaded from [\\f3420-ecldbp01\data\Coaching\Generic\Decrypt\_Out\](\\\\f3420-ecldbp01\\data\\Coaching\\Generic\\Decrypt_Out\\)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Metric/Report** | **Active Feed** | **Code** | **eCL Workflow** | **Entry** | **Coaching Reason** |
| 1 | Generic Other Report | Y | OTH | Indirect Coach | Feed | Current Coaching Initiatives |
| 2 | Seasonal Employee Attendance Report | Y | SEA | Indirect Coach | Feed | CCO Processes and Procedures |
| 3 | Attendance Discrepancy Report | Y | DTT | Indirect Coach | Feed | Attendance |

Encrypted files are staged at [\\f3420-ecldbp01\data\Coaching\Generic\Encrypt\_Out](\\\\f3420-ecldbp01\\data\\Coaching\\Generic\\Encrypt_Out ) with naming convention eCL\_Generic\_Feed\_XXX[\_ZZZ]<YYYYMMDD>.csv.zip.encrypt until scheduled load time.

Files are decrypted during the load process to naming convention eCL\_Generic\_Feed\_XXX[\_ZZZ]<<YYYYMMDD>.csv where

<YYYYMMDD> represents the Year, Month and Day and XXX is the 3 letter OTH Report Code for the generic report and \_ZZZ represents a specific Report Code.

## Module List

* SQL agent job
* SSIS Package
* Tables
* Procedures

## Software and Hardware Interfaces

### Software

* SQL Server 2012 SP3 Suite

### Hardware

* F3420-ECLDBD01 – Dev DB Server
* F3420-ECLDBT01 – Test DB Server
* F3420-ECLDBP01 – Prod Server
* [\\F3420-ECLDBD01\data\](file:///\\F3420-ECLDBD01\data\) - Dev File staging share
* [\\F3420-ECLDBT01\data\](file:///\\F3420-ECLDBT01\data\) - Test File staging share
* [\\F3420-ECLDBP01\data\](\\\\F3420-ECLDBP01\\data\\) - Prod File staging share

## Users

* The first set of users for the Generic records loaded into the eCL database are the CCO Supervisors as all records have default state of ‘Pending Supervisor Review’ at the time of the load.
* After a Supervisor reviews the log, the logs goes to Pending Employee review and the Employee becomes the user.
* CCO Supervisors and Managers and specific HR staff will be able to access the logs from the historical Dashboards.

# Details



## Source Files

eCL\_Generic \_Feed\_xxxyyyymmdd.csv is the naming convention for the feed where xxx is the 3 letter Report code.

Source system: NA

* Staging location: [\\F3420-ECLDBP01\data\](\\\\F3420-ECLDBP01\\data\\)Coaching\Generic\
* File name eCL\_Generic \_Feed\_xxxyyyymmdd.csv
* Frequency: Ad-hoc
* File arrival time: NA
* Destination Table: Coaching\_Log and Coaching\_Log\_Reason

### File layout and Mappings

* + - 1. **SEA/DTT Files**

|  |  |  |  |
| --- | --- | --- | --- |
| Element # | File Element | Staging table  [EC].[Generic\_Coaching\_Stage] | Destination table(s)  [EC].[Coaching\_Log]CL  [EC].[Coaching\_Log\_Reason]CLR |
|  | numReportID | Report\_ID | CL.numReportID |
|  | strReportCode | Report\_Code | CL.strReportCode  (SEA – Seasonal Employee Attendance, DTT – Discrepancy Time Tracking)  CLR.SubCoachingReasonID(Derived) |
|  | strFormType | Form\_Type | CL.SourceID (Derived)  SEA – Internal CCO Reporting  DTT – Empower |
|  | strSource | Source |
|  | strFormStatus | Form\_Status | CL.StatusID(Derived)  SEA – Pending Acknowledgement  DTT – Pending Acknowledgement |
|  | EventDate | Event\_Date | CL.EventDate |
|  | SubmittedDate | Submitted\_Date | CL.submittedDate |
|  | StartDate | Start\_Date | CL.StartDate |
|  | strSubmitterName | Submitter\_Name | CL.SubmitterID(Derived) |
|  | strSubmitterEmail |  | NA |
|  | EmpID | CSR\_EMPID | CL.EmpID |
|  | strCSRSite | CSR\_Site | CL.SiteID(Derived) |
|  | strCoachReason\_Current\_Coaching\_Initiatives | strCoachReason\_Current\_Coaching\_Initiatives | CLR.CoachingReasonID (Derived)  SEA – Opportunity  DTT – Opportunity |
|  | txtDescription | TextDescription | CL.Description |
|  | strProgram | Program | CL.ProgramName |

* + - 1. **OTH File**

|  |  |  |  |
| --- | --- | --- | --- |
| Element # | File Element | Staging table  [EC].[Generic\_Coaching\_Stage] | Destination table(s)  [EC].[Coaching\_Log]CL  [EC].[Coaching\_Log\_Reason]CLR |
|  | numReportID | Report\_ID | CL.numReportID |
|  | strReportCode | Report\_Code | CL.strReportCode  CLR.SubCoachingReasonID(Derived) |
|  | numModuleID | Module\_ID | CL.ModuleID |
|  | strFormType | Form\_Type |  |
|  | numSourceID | Source\_ID | CL.SourceID |
|  | numisCSE | isCSE | CL.isCSE |
|  | numStatusID | Status\_ID | CL.StatusID |
|  | numCRID | CoachingReason\_ID | CLR.CoachingReasonID |
|  | numSubCRID | SubCoachingReason\_ID | CLR.SubCoachingReasonID |
|  | Value | Value | CLR.Value |
|  | EventDate | Event\_date | CL.EventDate |
|  | EmpID | CSR\_EMPID | CL.EmpID |
|  | LANID | CSR\_LANID | CL.Formname  CL.EmpLanID |
|  | SubmittedDate | Submitted\_Date | CL.SubmittedDate |
|  | StartDate | Start\_Date | CL.Start\_Date |
|  | SubmitterID | Submitter\_ID | CL.SubmitterID |
|  | txtDescription | TextDescription | CL.Description |
|  | EmailSent | EmailSent | CL.EmailSent |

## Module Details

### SQL agent job

* Production Instance : F3420-ECLDBP01
* Production Job: CoachingGenericLoad
* Production Package: [\\F3420-ECLDBP01\ssis\Coaching\Packages\Generic \_Coaching.dtsx](file:///\\VDENSSDBP07\scorecard-ssis\Coaching\Training%20_Coaching.dtsx)
* Production Config File: Prod\_Generic\_Coaching.dtsConfig
* Owner: ecljobowner
* Run As: ECLProxy (ECL Credential using application service account VNGT\SVC-SQLECLP01
* Schedule: Tuesdays - On-demand
* Destination File Location: N/A

### SSIS Package

* + - 1. **Variables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Scope** | **Data**  **Type** | **Value** | **Evaluate As expression** |
| DecryptedOutPath | Generic\_Coaching | String | \\f3420-ecldbp01\data\coaching\Generic\Decrypt\_out\ | False |
| DecryptInPath | Generic\_Coaching | Int32 | \\f3420-ecldbp01\data\coaching\Generic\Decrypt\_in\ | False |
| EncryptedBackupPath | Generic\_Coaching | String | \\f3420-ecldbp01\data\coaching\Generic\\Backups\ | False |
| EncryptedOutPath | Generic\_Coaching | String | \\f3420-ecldbp01\data\coaching\Generic\Encrypt\_out\ | False |
| EncryptInPath | Generic\_Coaching | String | \\f3420-ecldbp01\data\coaching\Generic\Encrypt\_in\ | False |
| FailMessage | Generic\_Coaching | String | "Generic Coaching Load of file \"" + @[User::VarFileName] + "\" failed in " + @[User::VarDBName]+"." | True |
| StagedCount | Generic\_Coaching | Int32 | 0 | False |
| RejectedCount | Generic\_Coaching | Int32 | 0 | False |
| LoadedCount | Generic\_Coaching | Int32 | 0 | False |
| varDBName | Generic\_Coaching | String | Prod | False |
| varFileName | Generic\_Coaching | String |  | False |
| varEncryptedFileName | Generic\_Coaching | String |  | False |
| varFailedFile | Generic\_Coaching | String |  | False |
|  |  |  |  |  |

* + - 1. **Connection Manager Entries**
         1. Destinationdb
* Dev – F3420-ECLDBD01 DB – eCoachingdev
* Test - F3420-ECLDBT01 DB – eCoachingtest
* Prod - F3420-ECLDBP01 – eCoaching
  + - * 1. SEA\_DTT\_File
* \\vrivscors01\bcc scorecards\Coaching\Generic\eCL\_Generic\_Feed\_OTH\_[DTT/SEA]\*.csv





* + - * 1. OTH\_File
* \\vrivscors01\bcc scorecards\Coaching\Generic\eCL\_Generic\_Feed\_OTH\*.csv







* + - * 1. Encrypted\_File

Expression: @[User::EncryptedOutPath]+ @[User::VarEncryptedFileName]

* + - * 1. Failed\_File

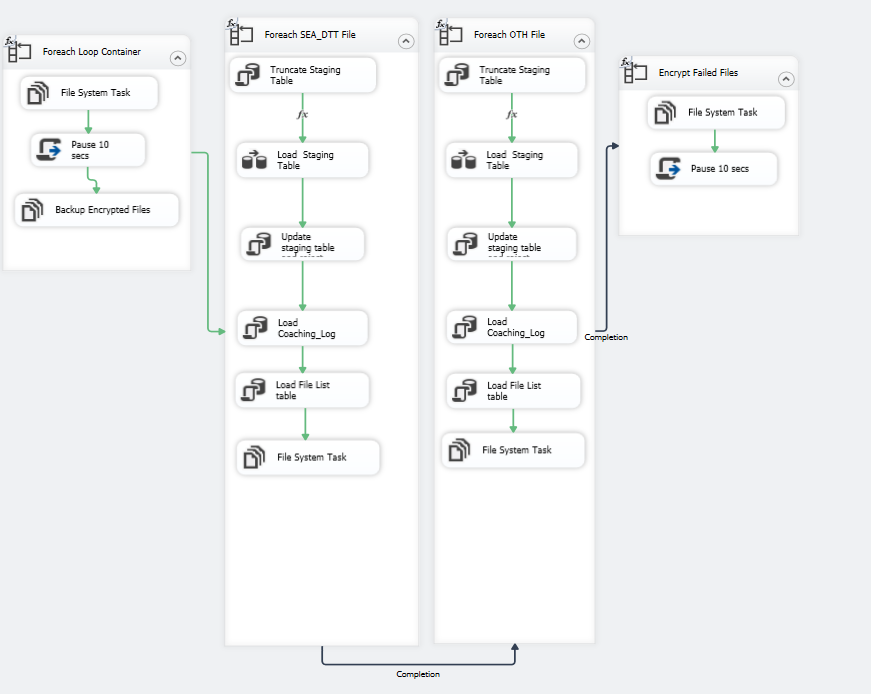
Expression: @[User::DecryptedOutPath]+ @[User::VarFailedName

* + - * 1. SMTP Connection Manager

smtpout.gdit.com



* + - 1. **Package Content(Control Flow)**



* + - * 1. **Foreach Loop Container ( Decrypt and stage files)**

**Summary of Steps**

1. File system task – Decrypt files
2. Script task - Pause 10 seconds
3. File system task – Backup encrypted files

**Details**

Container: Foreach File Loop

Folder: \\f3420-ecldbp01\data\coaching\Generic\Encrypt\_out\

Files: eCL\*Generic\_\*.encrypt

Retrieve file name: Name and Extension

1. File system task – Decrypt files



1. Script task- Pause 10 secs



public void Main()

{

// TODO: Add your code here

// Sleep for 10 seconds (\*1000)

System.Threading.Thread.Sleep(10000);

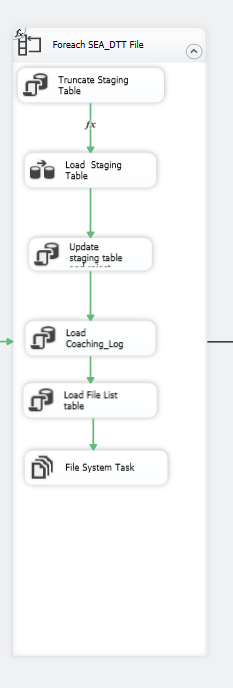
Dts.TaskResult = (int)ScriptResults.Success;

}

1. File System task – Backup Encrypted files



* + - * 1. **Foreach OTH [DTT/SEA] File container**



**Workflow**

**For each SEA file in staging directory workflow**

Container: Foreach [DTT/SEA] file

Collection:

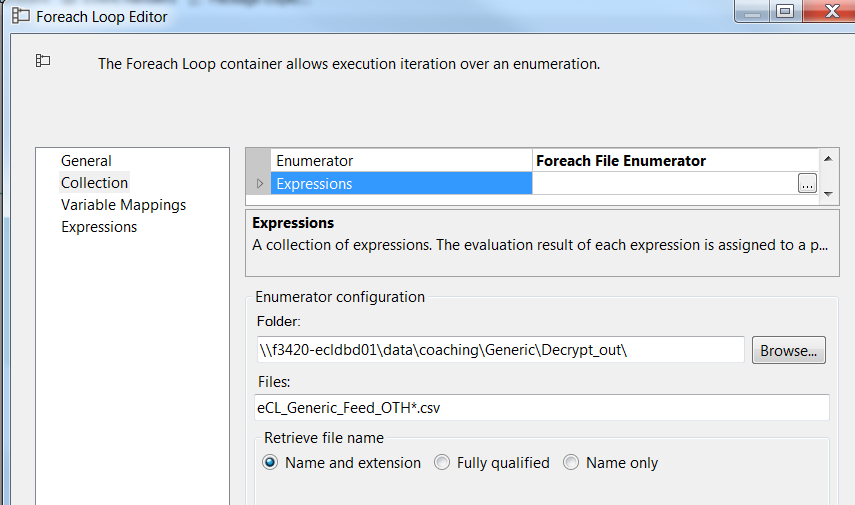
Enumerator: Foreach file enumerator

Expression: Directory: @[User::DecryptedOutPath]

Evaluates to: \\f3420-ecldbd01\data\coaching\Generic\Decrypt\_out\

Files: eCL\_Generic \_Feed\_OTH\_[DTT/SEA]\*.csv

Retrieve file name: Name and Extension



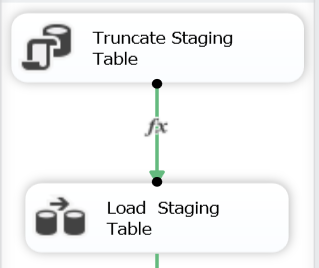


**Summary of Steps**

1. SQL task – Truncate Generic Staging table
2. DFT – Stage Generic Staging table
3. SQL task – Update Staging table and Reject records
4. SQL task Load Coaching\_Log and Coaching\_Log\_Reason tables
5. SQL task – Load File list table
6. File system task – Backup files to Backups directory

**Details of Steps**

1. SQL task – Truncate Generic Staging table

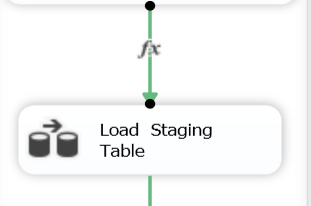


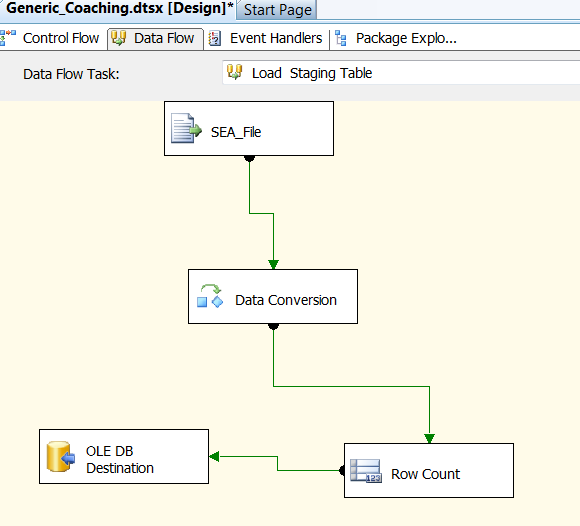
Executes Truncate Table [EC].[Generic\_Coaching\_Stage]

Precedence Constraint Editor

|  |  |
| --- | --- |
| Evaluation Operation | Expression and Constraint |
| Value | Success |
| Expression | (FINDSTRING(@[User::VarFileName],"SEA",1 ) > 0 ) ||(FINDSTRING(@[User::VarFileName],"DTT",1 ) > 0 ) |
| Multiple Constraints | Logical AND. |

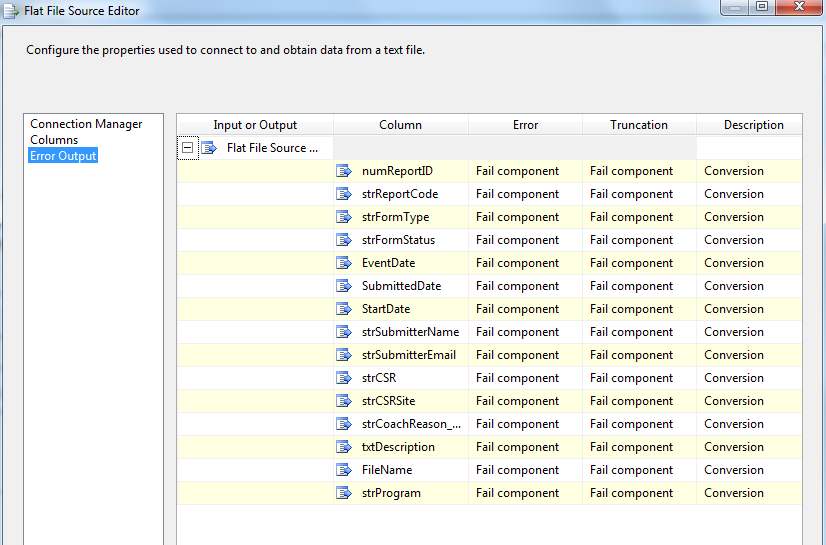
1. DFT: Load Generic staging table





1. Flat File source

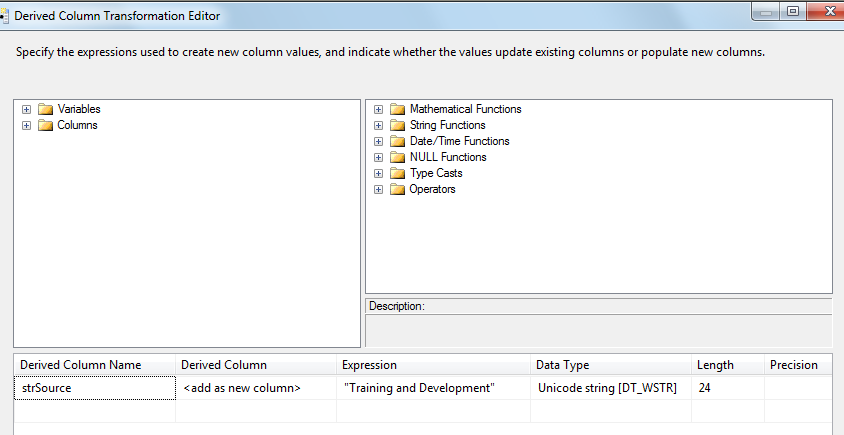




1. Data Conversion



1. Derived Column

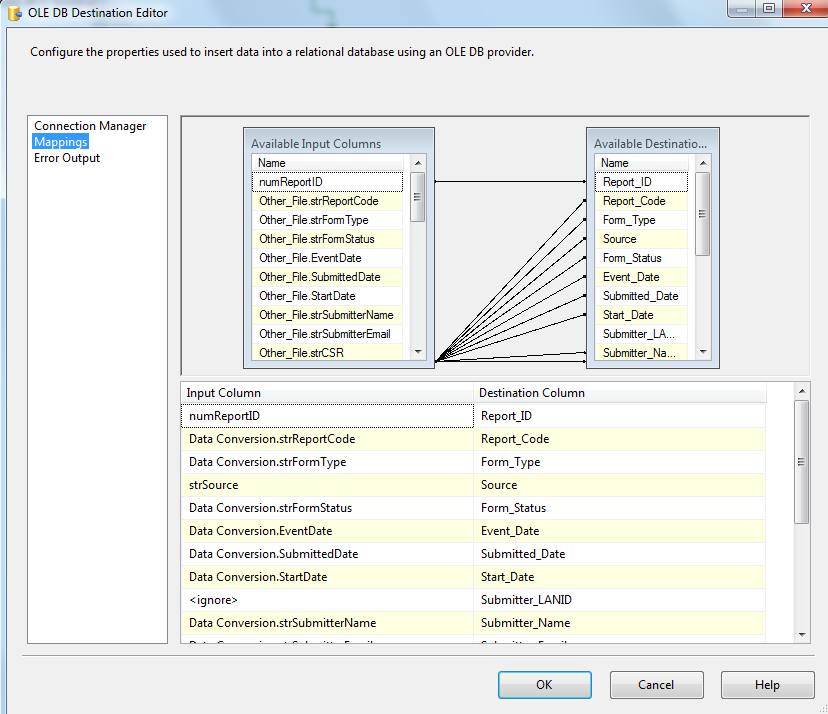


1. Row Count Transformation



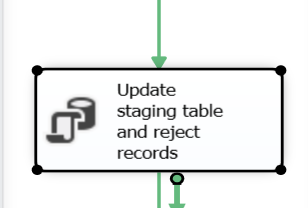
1. Oledb destination

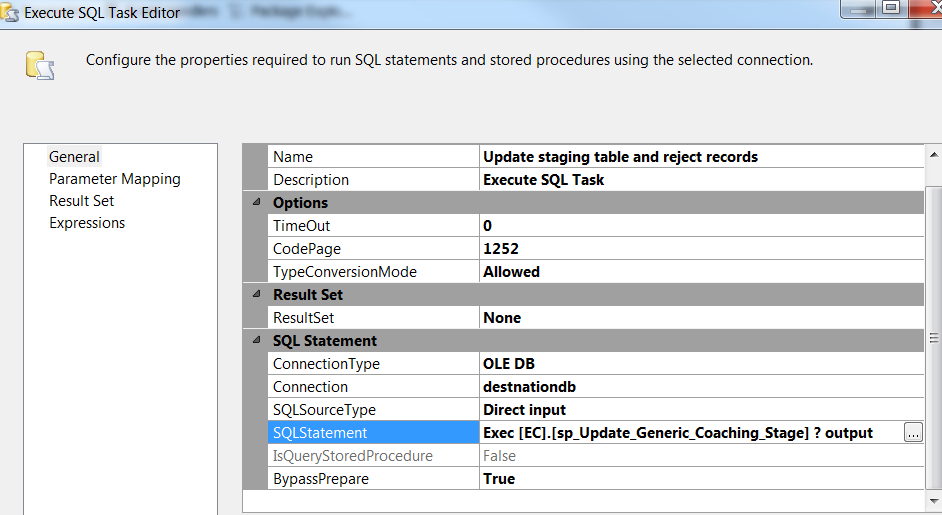


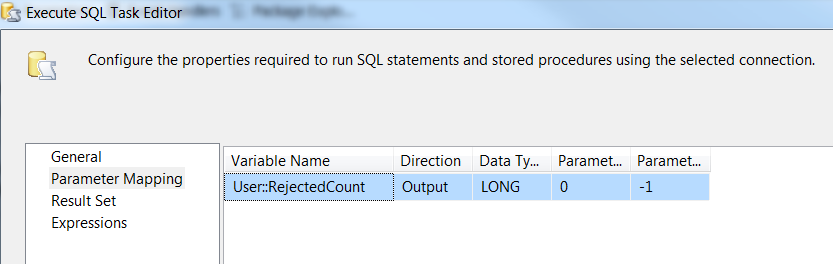




1. SQL Task: Update Staging table and Reject Records







1. SQL Task: Load Coaching\_Log table



SQLStatement: Exec [EC].[sp\_InsertInto\_Coaching\_Log\_Generic] ? output

Parameter Mapping:



1. SQL Task: Load Generic File List table







Executes the following sql

INSERT INTO [EC].[Generic\_FileList]

([File\_Name]

,[File\_LoadDate]

,[Count\_Staged]

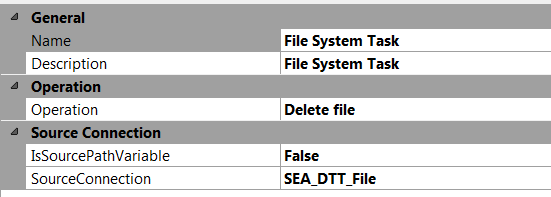
,[Count\_Loaded]

,[Count\_Rejected])

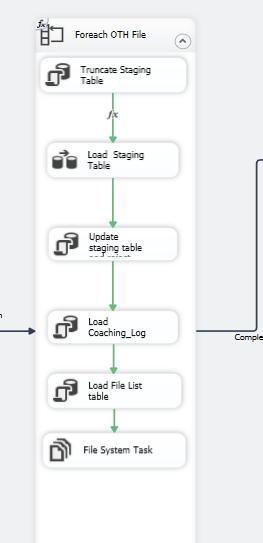
VALUES (?,GetDate(), ?, ?,?)

1. File System Task: Delete File





* + - * 1. **Foreach Generic OTH File container**



**Workflow**

**For each OTH file in staging directory workflow**

Container: Foreach OTH file

Collection:

Enumerator: Foreach file enumerator

Expression: Directory: @[User::FilePath]

Evaluates to: \\vrivscors01\BCC Scorecards\Coaching\Generic

Retrieve file name: Name and Extension

Files: eCL\_Generic \_Feed\_OTH\*.csv

**Summary of Steps**

1. SQL task – Truncate Generic Staging table
2. DFT – Stage Generic Staging table
3. SQL task – Update Staging table and Reject records
4. SQL task Load coaching\_Log and Coaching\_Log\_Reason tables
5. SQL task – Load File list table
6. File system task – Backup files to Backups directory

**Details of Steps**

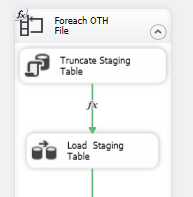
1. SQL task – Truncate Generic Staging table – similar to [SEA/DTT] files

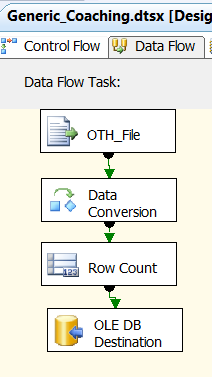
Executes Truncate Table [EC].[Generic\_Coaching\_Stage]

Precedence Constraint Editor

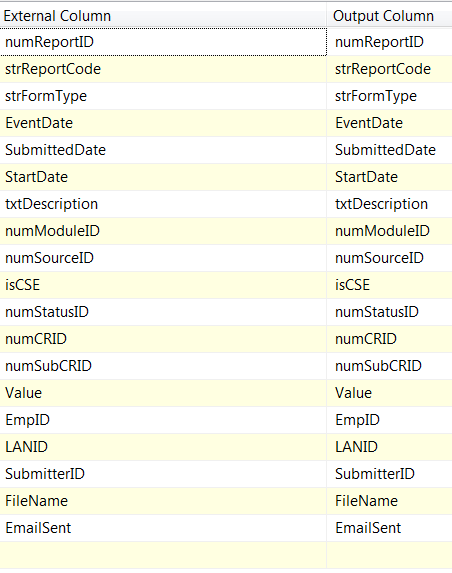
|  |  |
| --- | --- |
| Evaluation Operation | Expression and Constraint |
| Value | Success |
| Expression | (FINDSTRING(@[User::VarFileName],"SEA",1 ) == 0 ) && (FINDSTRING(@[User::VarFileName],"DTT",1 ) == 0 ) |
| Multiple Constraints | Logical AND. |

1. DFT: Load Generic staging table

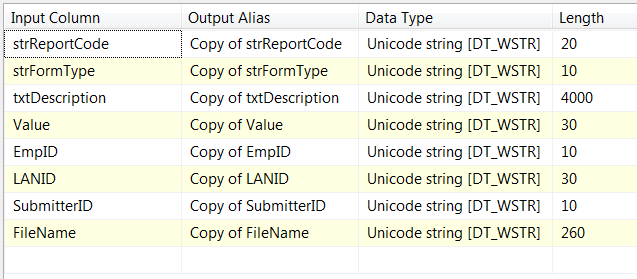




1. Flat File source



1. Data Conversion



1. Row Count Transformation



1. Oledb destination

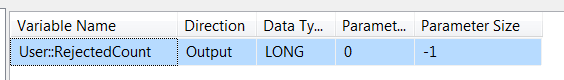




1. SQL Task: Update staging table and reject records

SQLStatement: Exec [EC].[sp\_Update\_Generic\_Coaching\_Stage] ? output

Parameter mapping:

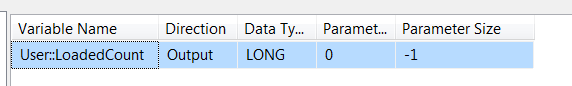


1. SQL Task: Load Coaching\_Log table



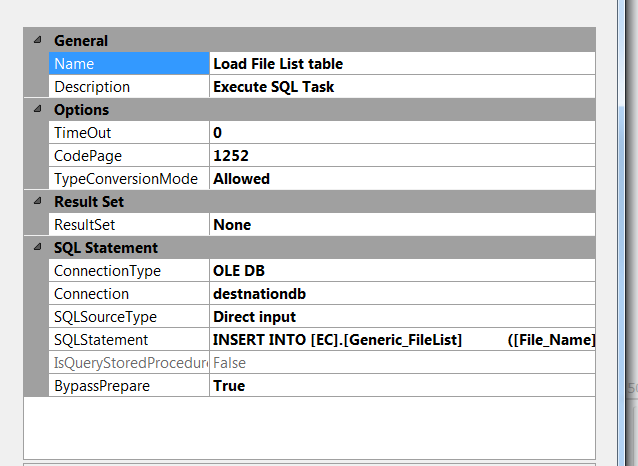
SQLStatement: Exec [EC].[sp\_InsertInto\_Coaching\_Log\_Generic]? output

Parameter mapping:



1. SQL Task: Load Generic File List table





INSERT INTO [EC].[Generic\_FileList]

([File\_Name]

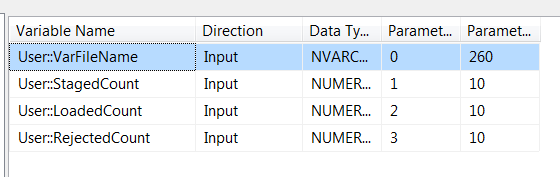
,[File\_LoadDate]

,[Count\_Staged]

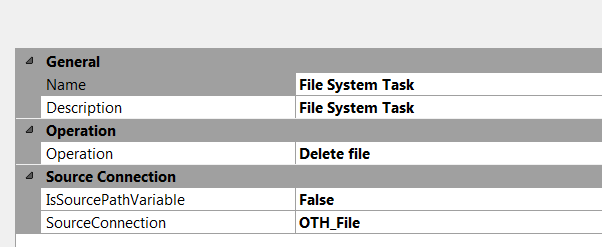
,[Count\_Loaded]

,[Count\_Rejected])

VALUES (?,GetDate(), ?, ?,?)



1. File System Task: Delete File



* + - * 1. **For each Loop Container ( Encrypt failed files)**

**Summary of Steps**

1. File system task – Encrypt failed files
2. Script task - Pause 10 seconds

**Details**

Container: For each File Loop

Precedence Constraint - Completion

Folder: \\f3420-ecldbp01\data\coaching\Generic\Decrypt\_out\

Files: eCL\*.csv

Retrieve file name: Name and Extension

1. File system task – Encrypt files



1. Script task- Pause 10 secs



public void Main()

{

// TODO: Add your code here

// Sleep for 10 seconds (\*1000)

System.Threading.Thread.Sleep(10000);

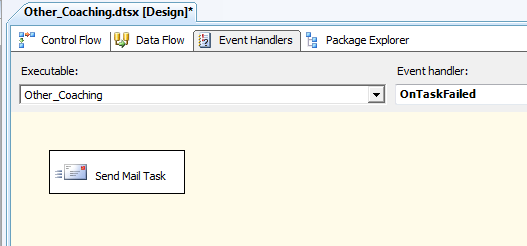
Dts.TaskResult = (int)ScriptResults.Success;

}

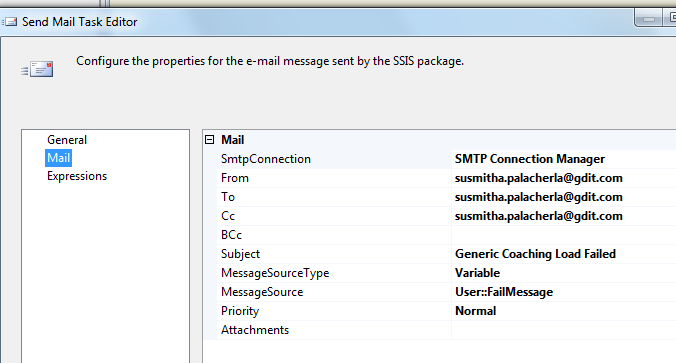
* + - 1. **Package Content(Event Handlers)**

Executables: Generic \_Coaching

EventHandler: OntaskFailed







### Tables

|  | **Table Name** | **Table Description** |
| --- | --- | --- |
| 1. | Generic\_Coaching\_Stage | Table used for staging the Generic records during the insert into Coaching\_Log table. |
| 2. | Generic\_Coaching\_Rejected | Table used for storing the rejected Generic records during the insert into Coaching\_Log table. Logs are rejected when an incoming Lan ID does not exist in the Employee\_Hierarchy table. |
| 3. | Generic\_Coaching\_Fact | Table used for storing Generic source records loaded into the Coaching Log table. |
| 4. | Generic\_FileList | Table used for storing the Generic file names and Load dates. |

Table structure and details in document: eCoaching\_Database\_DD.docx

### Procedures

|  | **Procedure Name** | **Usage** |
| --- | --- | --- |
| 1. | sp\_InsertInto\_Coaching\_Log\_Generic | Load: Generic Data |
| 2. | sp\_Update\_Generic\_Coaching\_Stage | Load: Populate attributes like lanid, site, program, Module etc |
| 3. | sp\_InsertInto\_Generic\_Rejected | Load: Reject records that do not belong to valid Active employee record for required Module. |

### Functions

|  | **FunctionName** | **Usage** |
| --- | --- | --- |
| 1. | fn\_intModuleIDFromEmpID | Load: Generic Data |
| 2. | n\_intSubCoachReasonIDFromRptCode | Load: Determine subcoachingReasonID |

Reference Document for Objects and Code: eCoaching\_Generic\_Load\_Create