***Data Services Framework (Switchbox) Guide***

***Version 2.06***

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Overview

The DSI Framework (switchbox) is designed to standardize and simplify how custom interfaces are processed in UltiPro BackOffice and Web. It has the following features:

1. Ability to Process Files for Payroll Automation
2. Ability to Run Open Enrollment via .NET (Web Portal)
3. Set Unique File Path for ONDEMAND and TEST Sessions
4. Convert all characters to Upper Case
5. Additional Sub Sort Fields
6. Override Record Count
7. Disable switchbox\_v2 BCP Command
8. Override switchbox\_v2 BCP Command Parameters
9. Configure Export to Not Generate an Empty File
10. Convert files to UTF-16 Format
11. Convert files to UTF-8 Format
12. Running Custom Interfaces via .NET (Web Portal)
13. Skip RecordSets by Export Code or SQL Clauses
14. Archive a copy of file without an Aftercollect

***Please note*** - The DSI Framework should be used for all custom interface exports, updates, imports, and stored procedures. There is an older Switchbox V1 and newer Switchbox V2. In UD (Mid-Market), all custom interfaces should be on Switchbox V2 in order to run through the Web Portal. In UDE (Enterprise), there is still a mix of custom interfaces on both V1 and V2 which need to be migrated.

IMPORTANT – DO NOT IN ANY WAY MODIFY ANY OF THE DSI FRAMEWORK OBJECTS

Often times, the DSI Framework objects will be installed with product releases; therefore any modifications you make to any objects within the install script will be overwritten.

Quick Start

Executing a Custom Interface via DSI Framework (Switchbox) using SQL Server Management Studio (SSMS) should always be run through the Test Switchbox Stored Procedure:

Switchbox V1: EXEC dbo.dsi\_sp\_TestSwitchbox '<FormatCode>', '<ExportCode>';

Switchbox V2: EXEC dbo.dsi\_sp\_TestSwitchbox\_v2 '<FormatCode>', '<ExportCode>';

1. Set <FormatCode> to your unique Format Code for your custom interfaces, e.g. 'ETALX'
2. Set <ExportCode> to the Export Session setup for your corresponding Format Code, e.g. 'ONDEMAND'

*That’s it.*

Migrating from Switchbox V1 to V2

## Repoint Switchbox in Employee History Export Template

You will need to repoint “dbo.dsi\_sp\_switchbox” to “dbo.dsi\_sp\_switchbox\_v2” in BackOffice by updating the “is custom export” value in the Setup Table > Employee History Export Template screen.

Alternatively, you can run an update script:

UPDATE dbo.AscDefH SET AdhPreProcessSQL = 'dbo.dsi\_sp\_switchbox\_v2' WHERE AdhFormatCode = 'EFORMATCODE'

## Repoint TestSwitchbox in Build Driver Table Stored Procedure

In SQL Server Management Studio (SSMS), open the Build Driver Table Stored Procedure. You will need to update the Execute Script for TestSwitchBox in the Comments Section.

See Example Below:

CREATE PROCEDURE [dbo].[dsi\_sp\_BuildDriverTables\_EFORMATCODE]

@SystemID char(12)

AS

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Created By: [Developer Name]

Integration Analyst: [IA Name]

Create Date: [Creation Date]

Service Request Number: [SR #]

Purpose: [Description of Interface]

Revision History

----------------

Update By Date Request Num Desc

XXXX XX/XX/16 SR-2016-000XXXXX Added 1234

SELECT \* FROM dbo.U\_dsi\_Configuration WHERE FormatCode = 'EFORMATCODE';

SELECT \* FROM dbo.U\_dsi\_SqlClauses WHERE FormatCode = 'EFORMATCODE';

SELECT \* FROM dbo.U\_dsi\_Parameters WHERE FormatCode = 'EFORMATCODE';

SELECT \* FROM dbo.AscExp WHERE ExpFormatCode = 'EFORMATCODE';

Execute Export

--------------

EXEC dbo.dsi\_sp\_TestSwitchbox\_v2 'EFORMATCODE','ONDEMAND';

EXEC dbo.dsi\_sp\_TestSwitchbox\_v2 'EFORMATCODE','SCHEDULED';

EXEC dbo.\_dsi\_usp\_ExportRipOut @FormatCode = 'EFORMATCODE', @AllObjects = 'Y'

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

## Update Automated Schedule (SQL Agent Job)

In the SQL Agent Job, then update the Job Step Commands to point to the TestSwitchbox\_v2 SP.

## Remove ZAP Session Code

Remove the 'ZAP' Session Code in AscExp, below is a Script:

DELETE FROM dbo.AscExp WHERE ExpFormatCode = 'EFORMATCODE' AND ExpExportCode = 'ZAP'

FAQ – What are the Database Object Associated with DSI Framework:

## Tables

* dbo.U\_dsi\_Switchbox\_VersionHistory – Tracking Switchbox Versions
* dbo.U\_dsi\_InterfaceActivityLog – Locking Mechanism, Retain last 180 days of data
* dbo.U\_dsi\_InterfaceProcesses – Track each process 'step' within Switchbox
* dbo.U\_dsi\_Translations\_v2 – Used for translations/mappings
* dbo.U\_dsi\_CompList\_v2 – Company Filter List based on BackOffice Selections
* dbo.U\_dsi\_SelectByList\_v2 – Select By (Data) Filter List based on BackOffice Selections
* dbo.U\_dsi\_Count\_v2 – Record Count output by Switchbox
* dbo.U\_dsi\_SQLClauses – Tables used for associated RecordSet
* dbo.U\_dsi\_RecordSetDetails – Used to skip RecordSets by Export Code
* dbo.U\_dsi\_Configuration – Main Configuration Table
* dbo.U\_dsi\_Parameters – Tracks Parameters used by Switchbox
* dbo.ExportKeys – This is owned by Development to allow us to view the ‘OriginalExportCode’ in support of Open Enrollment via the Web.

## Stored Procedures

* dbo.\_dsi\_usp\_ExportRipOut – This stored procedure generates a ‘ripout’ script for a custom interface used to for saving to Subversion.
* dbo.dsi\_sp\_UpdateConfig – This allows the developer to update parameters in dbo.U\_dsi\_Configuration table easily.
* dbo.dsi\_sp\_BuildDriverTables\_v2 - Basic Data Collection for EE List, then runs BuildDriverTable SP for corresponding Format Code
* dbo.dsi\_sp\_DataDefinition\_v2 - Build INSERT statement into \_File table based on AscDefF (data definition)
* dbo.dsi\_sp\_CreateRecordSet\_v2 - Builds FROM/WHERE Clause and Sorting of Records. Calls dbo.dsi\_sp\_DataDefinition\_v2 SP.
* dbo.dsi\_sp\_Collect\_v2 - Handles skipping of RecordSets, calls dbo.dsi\_sp\_CreateRecordSet\_v2 SP.
* dbo.dsi\_sp\_SwitchBox\_v2 - Main DSI Framework SP. Locking Mechanism for Payroll Automation. Builds ExportPath, Create \_File Table, Create View, Handles 834's, Allows Aftercollect code execution, UTF8 Conversion, Builds BCP Statement for File Generation.
* dbo.dsi\_sp\_TestSwitchBox\_v2 - Used by Custom Interface Team for running a Custom Interface by FormatCode, ExportCode in SSMS.

FAQ – What is the EELIST?

The DSI Framework will use an EELIST table if the ‘EEList’ variable is set to ‘Y’ in the dbo.U\_dsi\_Configuration table. The EE List is filtered based on the Company and Data selector selections set in UltiPro.

FAQ – My 'ZAP' is Gone!

With Switchbox V2, the 'ZAP' Export Session is no longer needed since it has been replaced by the Locking Mechanism for managing processes through the U\_dsi\_InterfaceActivityLog table. If you run 'ZAP' on a Switchbox V2 interface, then nothing will happen.

Locking Mechanism for Payroll Automation (Batch Files)

Payroll Automation files are generated in batches meant to process simultaneously by the switchbox\_v2 framework. Unfortunately, switchbox\_v1 was unable to process files for the same FormatCode simultaneously due to shared tables within the system, thus a locking mechanism was developed in v2.

## How does the Locking Mechanism work?

A locking mechanism was developed to only allow one file to process at a time, while all other files in the same batch are placed in a “queue” to process in order received.

Once the first file has completed, then the lock is released and the next process in the “queue” is locked and can begin processing.

If the locked session fails and lock is not released, then the next process must wait the average run time + 1 minutes will be used or a default 1 minute wait time (which can be overridden by using ‘OverrideWaitTime’ in U\_dsi\_Configuration table) for the first process to be forcefully failed.

The locking mechanism utilizes the dbo.U\_dsi\_InterfaceActivityLog table for tracking Locked, Failed, Completed sessions.

## What if I need to manually unlock a session while testing and don’t want to wait?

You can manually fail the locked session by running the following script by FormatCode and RunID:

UPDATEdbo.U\_dsi\_InterfaceActivityLogSETFailed = 1, Locked = 0

WHEREFormatCode = 'EFORMATCODE' AND Locked = 1 AND Completed = 0 AND Failed = 0 AND RunID = [RunID]

Once the Locked Session is unlocked, then you can re-run the process.

Open Enrollment via .NET (Web Portal)

This functionality is only available in Switchbox V2 when run in UltiPro Web. Custom Interfaces running via .NET (Web Portal) have parameters dynamically assigned temporarily at run-time (i.e., FileName, ExportCode, etc) and then removed once completed.

Originally when a custom interface would run for Session called ‘Open Enrollment – Active’, then the ExportCode assigned by .NET would look like ‘A5HE7KD89D’.

For Open Enrollment Sessions to run in BDM, the ExportCode is normally used to check if a session is OE or Regular Production File within BuildDriverTable SP.

A new feature was added by Development in Q1 2015 to allow a custom interface running via the .NET (Web Portal) to see the Original Export Code (i.e., OEACTIVE) for Open Enrollment Session only.

The Export Code generated by .NET and Original Export Code values are stored for a period of time in a custom table called dbo.ExportKeys.

Set Unique File Path for Export Sessions

This functionality is only available in Switchbox V2 when run in UltiPro BackOffice. Custom Interfaces running via .NET (Web Portal) have parameters dynamically assigned temporarily at run-time (i.e., FileName, ExportCode, etc) and then removed once completed.

## What if I want the 'OnDemand' Export Session to generate to a different Path?

Bypass ‘ExportPath’ parameter for ExportCode in ('ON\_DEMAND', ‘ONDEMAND’) by setting a File Path using the ‘OnDemandPath’ parameter in U\_dsi\_Configuration:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @OnDemandPath VARCHAR(200)

SET @FormatCode = 'EFORMATCODE'

SET @OnDemandPath = '\\us.saas\e1\Public\[ClientID]\Exports\'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''OnDemandPath'', ''V'', ''' + @OnDemandPath + '''

'

EXEC (@sCmd)

## What if I want the 'Test' Export Session to generate to a different Path?

Bypass ‘ExportPath’ parameter for ExportCode containing ‘TEST’ or ‘TST’ by setting a File Path using ‘TestPath’ parameter in U\_dsi\_Configuration.

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @TestPath VARCHAR(200)

SET @FormatCode = 'EFORMATCODE'

SET @TestPath = '\\us.saas\e1\Public\[ClientID]\Exports\'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''TestPath'', ''V'', ''' + @TestPath + '''

'

EXEC (@sCmd)

## What if I want the 'OE' Export Session(s) to generate to a different Path?

This setting is also available in Switchbox V1 when run in UltiPro BackOffice. Bypass ‘ExportPath’ parameter for ExportCode starting with ‘OE’ by setting a File Path using ‘OEPath’ parameter in U\_dsi\_Configuration.

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @OEPath VARCHAR(200)

SET @FormatCode = 'EFORMATCODE'

SET @OEPath = '\\us.saas\e1\Public\[ClientID]\Exports\'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''OEPath'', ''V'', ''' + @OEPath + '''

'

EXEC (@sCmd)

Automatic Data Manipulation

This functionality is only available in Switchbox V2. By adding configuration settings to the dbo.U\_dsi\_Configuration table, then the DSI Framework (switchbox) will automatically handle some data manipulation.

## What if I need all alpha characters to be Upper Cases on the file?

By setting the ‘Upper’ parameter in U\_dsi\_Configuration, then all characters within in the U\_EFORMATCODE\_File table will be converted to Upper Case.

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @Upper VARCHAR(1)

SET @FormatCode = 'EFORMATCODE'

SET @Upper = 'Y'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''Upper'', ''V'', ''' + @Upper + '''

'

EXEC (@sCmd)

## How do I Override the Record Count output in BackOffice screen?

By setting the ‘OverrideCount’ parameter in U\_dsi\_Configuration, then the record count of the file can be controlled with an update statement within the BuildDriverTable SP.

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @OverrideCount VARCHAR(100)

SET @FormatCode = 'EFORMATCODE'

SET @OverrideCount = 100

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''OverrideCount'', ''V'', ''' + @OverrideCount + '''

'

EXEC (@sCmd)

Make sure you setup an Update Statement within the BuildDriverTable SP to update the counts:

UPDATEdbo.U\_dsi\_Configuration

SETCfgValue = (SELECT COUNT(\*) FROM dbo.U\_EFORMATCODE\_DrvTbl)

WHEREFormatCode = 'EFORMATCODE' AND CfgName = 'OverrideCount'

## What if I need additional Sort Fields outside of 'InitialSort' and 'SubSort'?

Two additional SubSort fields are available to provide additional sorting functionality. The new SubSort parameters ‘SubSort2’ and ‘SubSort3’. All SubSort fields have been widened to 50 characters to support larger fields.

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @SubSort2 VARCHAR(100) , @SubSort3 VARCHAR(100)

SET @FormatCode = 'EFORMATCODE'

SET @SubSort2 = 'drvSubSort2'

SET @SubSort3 = 'drvSubSort3'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''SubSort2'', ''C'', ''' + @SubSort2 + '''

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''SubSort3'', ''C'', ''' + @SubSort3 + '''

'

EXEC (@sCmd)

File Generation

This functionality is only available in Switchbox V2. By adding configuration settings to the dbo.U\_dsi\_Configuration table, then the DSI Framework (switchbox) will automatically handle some data manipulation.

## What if I don't want to send an Empty File?

You can configure the Switchbox not to send an Empty File if the Detail Records (RecordType = 'D') has a Record Count of Zero by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @NoEmpty VARCHAR(1)

SET @FormatCode = 'EFORMATCODE'

SET @NoEmpty = 'Y'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''NoEmpty'', ''V'', ''' + @NoEmpty + '''

'

EXEC (@sCmd)

**Note:** Header and Trailer records are not counted for an Empty File.

This functionality is only available in Switchbox V2.

## What if I want to disable the BCP command within switchbox to use a custom BCP command in an AfterCollect?

The disabling of the BCP command is used in conjunction with the use of an AfterCollect to generate multiple files / split files.

You can disable the Switchbox BCP command by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @MultFile VARCHAR(1)

SET @FormatCode = 'EFORMATCODE'

SET @MultFile = 'Y'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''MultFile'', ''V'', ''' + @MultFile + '''

'

EXEC (@sCmd)

This functionality is only available in Switchbox V2.

## How do I Override the BCP Parameters within Switchbox without using an Aftercollect?

You can override the BCP parameters within Switchbox without the need of an Aftercollect by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @BCPParms VARCHAR(100)

SET @FormatCode = 'EFORMATCODE'

SET @BCPParms = '-c -t -r "0x0A"'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''BCPParms'', ''V'', ''' + @BCPParms + '''

'

EXEC (@sCmd)

**Note:** The example above will generate a Line Feed {LF} for the Row Terminator instead of the default Carriage Return {CR} / Line Feed {LF}

This functionality is only available in Switchbox V2.

## I need to send a file with UTF-16 Format.

The Switchbox gives the ability to convert a file to UTF-16 format by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @IsUTF VARCHAR(100)

SET @FormatCode = 'EFORMATCODE'

SET @IsUTF = 'Y'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''IsUTF'', ''V'', ''' + @IsUTF + '''

'

EXEC (@sCmd)

**Note:** This setting adds the additional BCP argument "-w" to performs the bulk copy operation using Unicode characters using NCHAR storage type.

This functionality is only available in Switchbox V2.

## What if I need to send a file with UTF-8 Format instead?

The DSI Framework gives the ability to convert a file to UTF-8 format with BOM (Byte Order Marker) using a powershell script command built into Switchbox by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(1000), @IsUTF8 VARCHAR(1), @UTF8Path VARCHAR(1000)

SET @FormatCode = 'EFORMATCODE'

SET @IsUTF8 = 'Y'

SET @UTF8Path = '\\ez2sup4db01\ultiprodata\Tanya\Exports\UTF8\'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''IsUTF8'', ''V'', ''' + @IsUTF8 + '''

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''UTF8Path'', ''V'', ''' + @UTF8Path + '''

'

EXEC (@sCmd)

**Additional Notes:**

* Unfortunately at this time, we are unable to generate UTF-8 format without BOM until SQL Server 2014 SP2 is applied to SaaS Environments.
* The UTF-8 Converter utilizes Powershell v2.0 or higher, which is a built-in Windows application, to encode the file in UTF-8 format. The use of Powershell within switchbox\_v2 was approved by SaaS Security and DBA Team.
* The UTF-8 conversion process will pull all files in the UTF8Path folder and convert them, then move the converted files into the ExportPath folder. This will allow for UTF-8 conversion of multiple files generated via AfterCollect, as long as the files are generated to the UTF8Path folder.
* If you are using an after collect, include -w for widechar in your BCP statement.

SET @BCPStr = 'bcp "SELECT Data FROM ' + DB\_NAME() + '..' + @SourceTableName + '" QUERYOUT "' + @FileName + '" -S' + @@SERVERNAME + ' -T -w -t'

* You can validate the file is in UTF-8 Format with an Advanced Text Editor like Notepad++.

This functionality is only available in Switchbox V2.

## How do I Archive a Copy of the File?

You can archive a copy of the file within Switchbox without the need of an Aftercollect by adding a setting to the Configuration table:

DECLARE @FormatCode VARCHAR(10), @sCmd VARCHAR(200), @ ArchiveFile VARCHAR(100), @ArchivePath VARCHAR(100)

SET @FormatCode = 'EFORMATCODE'

SET @ArchiveFile = 'Y'

SET @ArchivePath = '\\us.saas\e1\Public\[ARNum]\Exports\Archive\'

SET @sCmd = '

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''ArchiveFile'', ''V'', ''' + @ArchiveFile + '''

INSERT INTO dbo.U\_Dsi\_Configuration

SELECT ''' + @FormatCode + ''', ''ArchivePath'', ''V'', ''' + @ArchivePath + '''

'

EXEC (@sCmd)

This functionality is only available in Switchbox V2. If the Switchbox BCP is disabled ('NoBCP' = 'Y'), then the Archive Routine will not run.

## How do I create a Custom Summary File without an Aftercollect?

You can create a Summary File within Switchbox without the need of an Aftercollect by adding a Summary View:

CREATE VIEW dbo.dsi\_vwEFORMATCODE\_Summary AS

SELECT Data = 'Record Count: ' + CONVERT(VARCHAR(10),COUNT(Data))

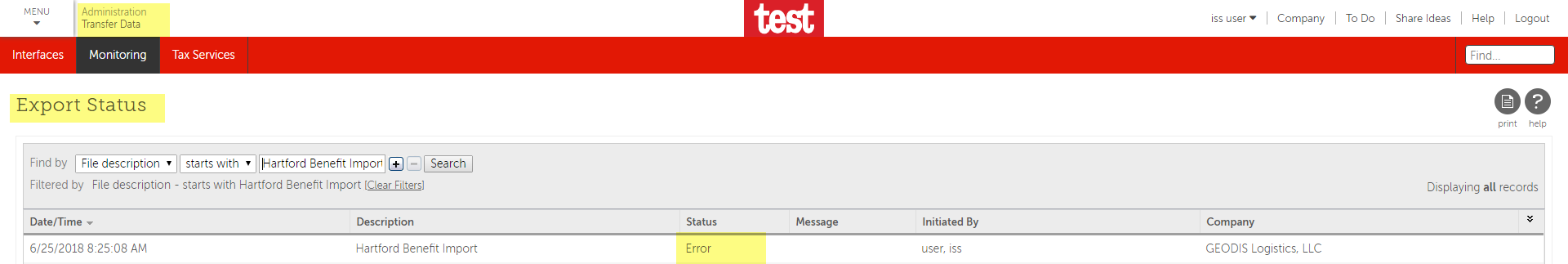
FROM dbo.U\_EFORMATCODE\_File (NOLOCK)

This functionality is only available in Switchbox V2. The 'NoBCP' flag must be set to 'N' in U\_dsi\_Configuration table (when set to 'Y' then BCP in switchbox is disabled). The filename convention will be the Export File Name with '\_Summary.txt' appended to the end of the file.

## What if I want to run the custom interface via the Web Portal?

This functionality of only available in Switchbox V2. Below is a guide on how to configure a custom interface via the Web Portal: [Setup Custom Interfaces for Web Portal](https://ulti.box.com/s/jnj2epgn35gp82wtivgz9p6jbx53g33z). Please note there are some limitations, such as a 3 minute timeout window.

If the interface takes longer than 3 minutes, then UltiPro Web will stop the process and the file will not generate to the Reporting > File Transfers screen. You will see an “Error” in the Transfer Data > Interfaces > Monitoring screen, see below:



Switchbox Output Record Errors (Negative Record Count)

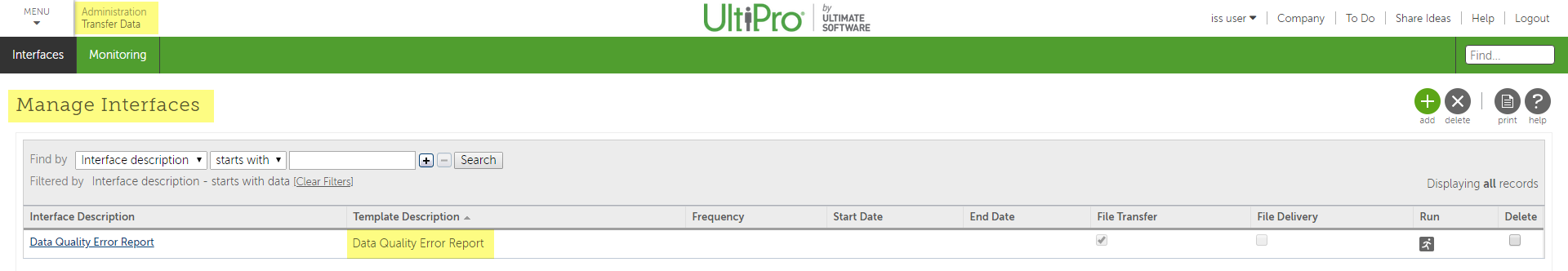
Below is a summary of the Error (Negative Record Count) when Switchbox outputs the record count:

|  |  |  |
| --- | --- | --- |
| Output Record Value | Root Cause | Resolution |
| -1 | File cannot be generated | 1. File Path is incorrect in U\_dsi\_Configuration table. 2. File Path Permissions (Access is Denied). 3. File is open and not able to write to the open file. |
| -2 | Summary File cannot be generated | 1. Summary File Path is incorrect in U\_dsi\_Configuration table. 2. Summary File Path Permissions (Access is Denied). |
| -3 | Archive File cannot be generated | 1. Archive File Path is incorrect in U\_dsi\_Configuration table. 2. Archive File Path Permissions (Access is Denied).   This only applied to Switchbox V2. |
| -33 | Initial Setup in U\_dsi\_Configuration table does not exist | Switchbox will create 'default' values in U\_dsi\_Configuration table for the following fields: EEList, ExportPath, OEPath, InitialSort, SubSort, Testing, UseFileName  Re-run the file will resolve the issue, but it's recommended to update the values before re-running the file. |
| -44 | The 'SelectByField' does not match. | Correct the 'SelectByField' in AscExp. |
| *-66* | *The Export TEMPLATE is locked when the AscExp.ExpSystemID is NULL/Blank* | *This only applied to Switchbox V1. You must correct any errors and run 'ZAP' to unlock the Session.* |
| -88 | Max Characters for Fixed Length File is over 8000 characters (AscDefH.AdhRecordSize > 8000 and AscDefH.AdhFileFormat = 'SDF') | Fixed Length/Fixed Width files over 8000 characters are not supported.  You may need to use Fixed Length/Variable Width files by setting AscDefH.AdhFileFormat = 'CDE'.  This only applied to Switchbox V2. |
| *-99* | *Unlock a Locked Session* | *This only applied to Switchbox V1. This will unlock a locked session.* |

Standard Web Reports

## Data Quality Error Report

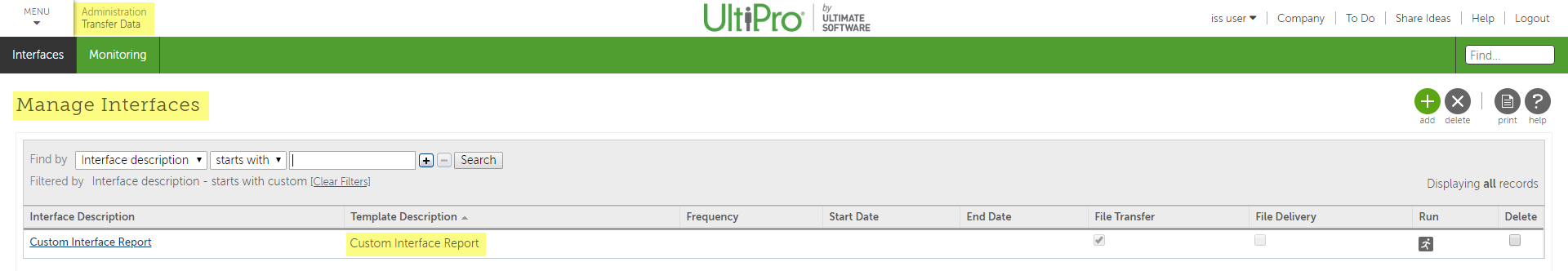
With Switchbox v2.06, a Standard Web Report was made available to all clients to provide more insight into data issues. The report can be generated via the Web Portal through the Menu > Administration > Transfer Data > Interfaces screen.



The report can then be downloaded via the Menu > Administration > Reporting > File Transfers screen.

## Custom Interface Report

With Switchbox v2.06, a Standard Web Report was made available to all clients to provide a full list of custom interfaces. The report can be generated via the Web Portal through the Menu > Administration > Transfer Data > Interfaces screen.



The report can then be downloaded via the Menu > Administration > Reporting > File Transfers screen.

Appendix: DSI Framework Version History

**Switchbox v2.06 Changes/Enhancements Summary**

1. Update Switchbox BCP Statement to remove unnecessary double-quotes around @@SERVERNAME value.
2. Update UTF-8 Conversion to reset UTF8FileList table by FormatCode and lookup MAX(utfID) by FormatCode to resolve performance issues.
3. Add additional support to U\_dsi\_InterfaceProcesses table
4. Update File Path to a Valid Format.
5. Removed unused variables in dsi\_sp\_DataDefinition\_v2 SP.
6. Corrected Ripout Script for PHX Environments.
7. Added a Standard Web "Data Quality Error" Report.
8. Added a Standard Web "Custom Interface" Report.