Winshuttle Script Migration Guide

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Chapter 1 – Purpose of the Script Migration Guide

The purpose of the Script Migration Guide is to enable you to successfully migrate scripts. The guide covers the following topics:

- 1. The overall script migration process using the Migration Tool.
- 2. The effective migration of scripts and corresponding data templates with the Migration Manager tool.
- 3. The script migration strategy.

1.1 References

As you use this guide, please refer to the resources below.

Resources
Studio Manager 20.1 System Requirements, Online Help, and Installation Guide
Studio 20.1 System Requirements
Evolve 20.1 System Requirements and Online Help

Chapter 2 - Before you begin

The Migration tool allows you to migrate scripts and data templates from legacy versions of Central or User Governance to Studio Manager 20.1. For Standard workflows, you can migrate scripts and data templates from Foundation to Evolve 20.1.

The migration tool is fully equipped to process script migrations from SharePoint site libraries, with minimal manual intervention.

2.1 Prerequisites

- At a minimum, you must have read-only permission for the intended source libraries.
 Site members with access to read-only contents can download data from the source site. A license check is not required. Ideally, migrations are completed by the Site Collection Administrator.
- 2. Excel 2013 2019 must be installed on the computer the utility will run on. Otherwise, you will receive an error message when you click the **Migrate** option.
- 3. For the destination log-in, you must have Evolve access. You must also have the **Solution Developer** role for all destination libraries requiring migration. Ideally, migrations are completed by the Global Admin or the App Admin; the Global Admin or App Admin will require Developer access to the destination libraries.
- 4. A 32-bit utility can run on OS-32-bit machines or 64-bit machines. A 64-bit utility must run on a 64-bit machine. There is no Excel bit dependency.

- 5. Microsoft .NET Framework 4.8.x
- 6. SharePoint 2010, 2013, and 2016

Note: A single instance of the application will be launched. When you open a second instance of the application, a warning message will be displayed.

2.2 Supported migration paths

The migration of scripts from and to the following product versions are supported:

- Central 10.7 to Studio Manager 20.1 for Standard workflow
- User Governance 11.x to Studio Manager 20.1 for Standard workflow
- User Governance 12.x to Studio Manager 20.1 for Standard workflow
- Foundation 10.7 to Evolve 20.1 for Standard workflow
- Foundation 11.x to Evolve 20.1 for Standard workflow
- Foundation 12.x to Evolve 20.1 for Standard workflow

2.3 Understanding the scope of the Migration

Scripts and corresponding data templates are migrated using the Migration Manager tool. Data templates will be migrated along with scripts; there is no support for individual data template migration.

2.3.1 High Level Migration scope

Modules / Use Cases	Level of change	Change Rating	Migration
Administration & User Management	Similar concepts but a new user interface, content management and permissions model.	High	Redesign information architecture. Set up users*, policies, preferences, and other configurations.
Studio scripts and templates	No changes to script creation. Changes to Script submissions.	Low	Migration tools and/or scripts planned to assist movement of scripts and data templates from UG/Central to Studio Manager and Foundation to Evolve for Standard workflow.

2.3.2 Not in scope:

Data files, logs, ROI and other historical, site configuration, libraries, policies/preferences, Macro and Command Line applications.

The following script/template metadata

- Auto Logon Files or Auto logon credentials
- Scripts approval information
- Script URL in Data Template

Non-production scripts Scripts used for Excel Workflow or Forms Property promotion Version templates which have the same name (in a composite script scenario), containing scripts from the same source library/folder.

The script workflow process history is not migrated

2.4 Migration scenarios

See the table below for the various migration scenarios.

Script types	Applicable versions	Migration path
Single Transaction scripts (All data sources supported)	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager
Single Query scripts (All data source supported)	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager
Linked Transaction scripts	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager
Linked Query scripts	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager
Multi-Transaction scripts	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager
Multi-Query scripts	10.7, 11.x, 12.x	NA
Cross-linked scripts	12.x	NA
Query and Transaction scripts together in a data Template	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager (execution with some recommendations)
Transaction single and Transaction linked script together in a data template	10.7, 11.x, 12.x	Move to Studio Manager/Evolve using Migration Manager (with limitation around template name)
Any other composite script types that are not natively supported	10.7, 11.x, 12.x	Not supported

2.5 Managing specific scenarios

Composite script Scenarios for 10.x, 11.x, and 12.x SharePoint sites

1. Round-trip scripts are **composite** scripts. A script is marked composite if the template contains more than one script information from the same site. The information of the composite is marked only by clicking the download button on the source site.

- 2. We recommend migrating single and linked files before migrating composite scripts.
- 3. When migrating composite scripts, read the preceding script and check its migration status. If it did not migrate ('errored'), an error message will direct you to migrate that script first.
- 4. After the preceding script is migrated, go to subsequent composite scripts from the same site to continue the migration.
- 5. Round-trip scenarios and multiple scripts published in templates via non-standard routes (except for the multi-script submissions wizard feature) are not supported. As an alternative, migrate only the latest script and associated latest template. (That script is the only one that will remain published in the migrated template.)
- 6. All scripts in a composite script bundle are on the same TeamSpace.
- 7. Published scripts from other source foundation sites are removed from the template.
- 8. Published Connect-only mode scripts are removed (for all templates independent of round-trip scenarios).
- 9. Conflict resolution will restrict each template migration if reference scripts do not exist.

2.6 Performance

We recommend migrating a batch of approximately 100 files at one time.

Please refer to the matrix below for the approximate time required to migrate the number and type of scripts in each migration process.

Note that this data is derived based on in-house tests performed. It will vary based on customer environment.

Number and type of file	File Size	Time
200 Single Transaction	212 KB	14 min 9 sec
200 Single Query	326 KB	7 min 50 sec
50 X 3 Multi Scripts	282 KB (33+37+212)	3 min 34 sec
50 X 3 Linked scripts	103 KB (35+36+32)	3 min 13 sec
10 X 3 Multi, 10 X 3 Linked, 10 X 2 Round trip, 20 Single	798 KB (282+103+87+326)	3 min 41 sec

Chapter 3 - Migration Manager Tool and process overview

3.1 Migration process overview

- 1. The site collection admin logs in to the source site or the subsite.
- 2. They select a library or folder for a list of all files and associated metadata.
- 3. They select some or all the scripts in the library/folder and make them available in the utility.
- 4. The global administrator logs in to the destination.
- 5. They select downloaded scripts to move to the destination.
- 6. In the wizard, define the target app and the library. In addition, edit the solution name and SAP mapping.
- 7. The migration summary includes the number of successful migrations, the number of errored files and their details, and the number of files migrated with warnings.

Note: The logged-in user must be added to the script developer group in the apps/libraries to which the scripts will be migrated.

3.2 Local Storage

The local storage is in a SQLLite database created in an executable bin; this is created when you launch the utility for the first time.

A SQLLite database stores the following information:

- 1. Source site login details including site, site version, SAP servers, and Query and Transaction libraries.
- 2. Script details including script data, template data, supporting documents, and input files.
- 3. Script migration details including mapping information for the source script and destination site. The app and the solution are stored along with WZIP.
- 4. Migration history details including the time and status of each migration.
- 5. The local storage is vital to the application. Tampering with the local storage will create inconsistencies.
- 6. Once you have downloaded all information from the source to local storage, there is no further need to connect to the source workgroup or to Foundation sites.
- 7. The utility bin together with the database can be copied to any virtual machine that has access to the Evolve destination site.

3.3 Source Data Fetching

- 1. Log in to the source site with a valid user ID.
- 2. Subsites must be logged in separately. They will be handled as separate sites and will not be displayed in the parent site node.
- 3. You can fetch libraries and SAP servers for the first time and store them in local storage.
- 4. Click **library** the first time. If empty, you can fetch files and folders in chunks using the **stop** button.
- 5. Click **SAP Mapping** to see a list of source-site SAP servers.
- 6. To download data for each script, select the script and click **download**. Download is enabled only when you are logged into the site.
- 7. If the download is successful, **Yes** appears in the download column. All script details, template details, supporting document details, and input file details (if any) for that script are now in local storage.
- 8. If there is a download error, **No** appears in the download column and the tooltip will display an error.

- 9. To delete items from local storage, select grid items and click **delete**.
- 10. To remove the complete node from the tree view along with the node inner data, click **delete** on the tree node.
- 11. If you select a parent library/folder node, the sub-node/folder for that parent library/folder node will be permanently displayed.
- 12. If you delete all files from a nested folder, the folder is deleted from the tree view. To fetch library details from the source site for a second time, refresh the library.
- 13. Refresh works only when logged in to the site. If you are logged in, the site will be green at the top.
- 14. You can log in to N number of source sites and download contents in the local database of the utility.
- 15. Sites for which contents were already downloaded into the local database are displayed in grey.
- 16. Refresh on the Libraries node is not visible.
- 17. Click **Refresh** on Transaction Libraries/ Query Libraries to fetch libraries when and if new libraries have been added. Existing libraries are not changed.
- 18. Click **Refresh** on an individual library to fetch missing scripts or to fetch any new scripts that have been added to the source site. Existing data is not changed.
- 19. The total item count is displayed at the top of the grid.
- 20. Pagination shows for items over 10. The pagination page size is 10.
- 21. The **Source Data Grid** is refreshed with destination information when you log in to the destination on the right side.
- 22. Mother grid columns are configurable. They can also be hidden and moved to a different position.

3.4 Destination Login

- 1. After you have logged into the destination, you will see new columns for **Target Solution Name**, **Destination Status**, and **Migration Failed Reason**.
- 2. These three columns show only after you log in to the destination. If you change the destination, the information associated with each column is updated accordingly. Each destination Evolve app has its own status for the information in these three columns.
- 3. Destination status can be any of the following:
 - Migrated (if successful)
 - Migrated with warnings (if warnings appear on migration)
 - Error (if error occurs)
 - Not migrated (default status)
- 4. The status is indicated only for the most recent migration for that particular source site and specific destination Evolve app combination. If you complete two migrations on the same Evolve App, only the status of the most recent migration is displayed in the utility UI grid. The migration history for both migrations is available in the migration logs.
- 5. The **Target Solution** is the template name by default. If the template is not present (as is the case with Access, XML, and Query without templates), the script name will be displayed.
- 6. The **Target Solution** name field can be edited. You can change the name of the solution before migrating.
- 7. You can switch the app if you need to sign into another app.

8. You can sign out if you want to log in to another Evolve site.

3.5 SAP Mapping

Mapping between the source SAP system and the destination SAP system must be maintained.

Post-log in, information is fetched from the source Foundation site, and the grid displays the source SAP system information.

The next step is to map the source SAP system to the destination SAP systems.

- 1. This is required for scripts with **AutoRun** and **SAP server** selected.
- 2. Scripts marked with **SAP server** require valid mapping for migration.
- 3. The **destination SAP server** must be from the global app or the app you are currently logged in to.
- 4. You can add a new **source SAP system**. That system can be mapped to the destination SAP system.
- 5. When you switch apps, the **SAP system mapping** of the destination app you are logged-in to is displayed.
- 6. Mapping is stored for the source site and the destination site with the app in the local file in the executable bin for example, Sapmapping.xml.

3.6 Log in to Destination and launch Migrate Data wizard

If you have access to the app and the Solution Developer role on the destination libraries (where the data will be migrated), you can log in to the destination. If there are multiple apps available, select one.

From top right, you can view the user and the app name; you can also select a different app.

After login, you will see additional columns such as **Destination status**, **Migration fail reason**, and **Target solution name**. The Target solution name column notes by default the name of the data template for the Excel data source; it also includes the script name for the Access data source for submission to Evolve. You can edit the **Target solution name** column.

Note: These three columns are displayed only after you log in to the destination. If you change the destination ("switch the app"), the information associated with each column is updated accordingly. Each destination Evolve app has its own status for the information in these three columns. The destination status can be any of the following:

- Migrated (if successful)
- Migrated with warnings (if warnings appear on migration)
- **Error** (if error occurs)
- Not migrated (default status)

The status is indicated only for the most recent migration for that particular source site and specific destination Evolve app combination. If you complete two migrations on the same Evolve app, only the status of the most recent migration is displayed in the utility UI grid. The migration history for both migrations is available in the migration logs.

To initiate the migration of data from source to destination, select the downloaded files and click **Migrate Data**. In the Migrate Data dialog, you can:

- 1. View the source and destination site
- 2. View the source library and destination app
- 3. Select the destination library to migrate the data

Note: The libraries in the dropdown are displayed as per the required developer access to libraries.

3.7 Start Migration

Click **Start Migration** from the Migrate Data dialog to open a new screen. This screen displays the migration progress, the number of files being migrated, the source and destination site, and the library.

- 1. When logged in to the source site, download selected files from the mother grid (the mother grid is at far right, in the utility view).
- 2. Log in to the destination site.
- 3. Filters can be applied on records which must be migrated.
- 4. File count is displayed above the grid in (total files).
- 5. Migration count / error in migration count is also displayed (total migrated count).
- 6. Log in to the destination and valid application.
- 7. Click **Migrate** to view libraries based on content type. Libraries for which the logged-in user has **Solution Developer** role permissions are displayed. For Query, the libraries will be Query-specific libraries; for Transaction, the libraries will be Transaction-specific libraries.
- 8. Click **Start Migration** to view the file-by-file progress.
- 9. You can guit the migration if the migration has not yet started for any of the pending files.
- 10. The last screen indicates the migration status of all files.
- 11. Click the errors and warnings link to view solution error-related and warning-related detail.
- 12. If you switch the app, the migration status is changed accordingly.

Run time detailed Migration status can also be viewed for scripts migrated Errored or completed with warnings.

- Errored scripts: some scripts may have conditions/features which are no longer supported or available in Studio with Studio Manager. So - these scripts would be errored out. For example, scripts with "If to verify text" condition needs to be removed first before they are migrated to Studio Manager because it is not available in Studio 20.x with Studio Manager.
 - Another example: for composite script which covers the round-trip scenarios must have the single scripts migrated first. If the composite script is migrated without getting the single scripts migrated, in this case the migration will result into an error.
- Completed with warnings scripts: this means that the scripts are migrated, but they have some warnings or information for you. For example: "FromTo" operator is converted to "Between" operator in Studio 20.x

Once the migration process is complete, user can fix the issues in the errored scripts and try Migration again on these scripts.

All the scripts migrated to Studio Manager/Evolve can be viewed by launching Studio 20.1 library

Note: All 10.x scripts will be converted into 11.x version automatically. This will be helpful as you migrate **10.x linked scripts** to **Studio 20.1**.

Chapter 4 Migration Logs

Migration logs are in a separate menu to the left. They display the migration history using that instance of the utility executable. You can export the migration history details into Excel.

Chapter 5 Migration Manager - Key points

- 1. The migration works for both **Studio Manager** and **Evolve** mode for standard workflows only (for example, 1-Step, 2-Step, and NDRs); custom workflows are not within scope.
- 2. Script Migration. Only those scripts with production status are migrated. Rejected, in-review, archived, or other scripts cannot be migrated; they will not be downloaded into the local storage utility. Scripts mapped to all data sources except SharePoint are migrated.
- 3. Only the latest version of each script is migrated. Scripts are migrated along with the latest templates associated with it. When metadata and the contents from the source have been downloaded into local storage, you cannot overwrite them with a refresh operation; instead, you must add new entries.

Note: If metadata is downloaded without its contents, please be aware of the following: If the source metadata is changed, and you perform a refresh operation, the metadata is not overwritten. And when you try to download its content, you will receive a validation message indicating a version mismatch.

- 4. **Datafiles** (submitted templates as a datafile) are not migrated.
- 5. The script workflow process history will not be migrated.
- 6. Multi-scripts are migrated only if they have an Excel data source.
- 7. Supporting files for all scripts are migrated along with the solution in Studio Manager/Evolve.
- 8. Supporting files of different libraries will be migrated similar to what is shown in studio, for example, supporting document of one library only will be migrated.
- 9. Input files are migrated with the solution/script.
- 10. Templates are only migrated along with script solutions; individual template migration is not supported. You must re-download templates from the new Studio Manager/Evolve environment. Local saved templates downloaded from previous UserGovernance/Foundation sites will not work. Only the latest script version template is migrated.
- 11. Query without a template is migrated; a new template is generated as well as headers and publishing information. Here, the default template name is the script name.
- 12. Rejected, In-Review, Archived, or other scripts cannot be migrated; they will not be downloaded into the local storage utility. Scripts mapped to all data sources except SharePoint are migrated.
- 13. Only the latest version of each script is migrated. Scripts are migrated along with the latest templates associated. When scripts and the contents from the source have been downloaded

into local storage, you cannot overwrite them with a refresh operation; instead, you must refresh the library and download the fetched scripts.

Note: If metadata is downloaded without its contents, please be aware of the following: If the source metadata is changed, and you perform a refresh operation, the metadata is not overwritten. And when you try to download its content, you will receive validation messages indicating a version mismatch.

5.1 Migration Mapping

The migration mapping is as follows:

- Created By → User logged into the Evolve App (during script and/or template migration).
- Reviewer \rightarrow User logged into the Evolve App (during script and/or template migration).
- Created Date, Modified Date → Current Time (when the utility is running to import solutions).
- The **Script Workflow Process History** is not migrated.

5.2 10.x Site Migration

The following scripts are blocked during migrations:

- 1. The **If to Verify Text Condition in TxR** is not available in Evolve; it will not be migrated. The **If to Verify Text Condition** is not available in Studio 20.x. Please remove it and try again.
- 2. 10.x **Document Attachment** scripts. You will receive an error if attempting to run these scripts.
- 3. Multiple scripts with different workflows.
- 4. Query with a **Not Operator** in the criteria in combination with <, >, <=, >=.

5.2.1 Scripts Migrated with Warnings

- 1. 10.x **Between operator** files are displayed with a warning message: "The **FromTo** operator is converted as a Between operator in Studio 20.x."
- 2. 10.x **Extended log** is enabled as a comment in the log column. Message: "Extended Logs as a comment in the log column is not available in Studio 20.x."
- 3. **INList** with a *,? Operator in it. Message: "Validate by list value with "*" will be converted into a Regular Expression List in Studio 20.x."
- 4. Macro-based templates are flagged with a warning when the migration is complete.

5.2.2 Additional Information

- 1. Password-protected scripts are migrated.
- 2. Password-protected sheet templates are migrated.
- 3. 10.x linked scripts on 10.x sites are converted to the 11.x format.
- 4. 10.x single Query scripts remain in the 10.x format.

5.3 11.x or 12.x Site Migration

- 1. **Macro-based templates** are flagged with a warning when the migration is complete.
- 2. Password-protected scripts and templates with protected sheets and structures are migrated.
- 3. Version templates which have the same name in a composite script scenario which have the same library/folder are not migrated.

5.4 Transaction Migration for 10.x, 11.x, and 12.x Sites

- 1. Single scripts from all data sources are migrated (data sources such as Excel, Access, XML, or others).
- 2. Linked scripts (straight linked only; not cross-linked Query and Transaction scripts) from all data sources are migrated (data sources such as Excel, Access, XML, or others). Only Excel-to-Excel linking is permitted.
- 3. Multi-scripts are migrated only if they have an Excel data source.
- 4. Templates are only migrated along with script solutions; individual template migration is not supported. You must re-download templates from the new Studio Manager/Evolve environment. Local saved templates downloaded from previous UserGovernance/ Foundation sites) will not work. Only the latest script version template is migrated.
- 5. Supporting files for all scripts are migrated along with the solution in Studio Manager/Evolve.
- 6. Supporting files of different libraries are migrated in the same way they are in Studio: supporting documents from just one library are migrated.

5.5 Query Migration for 10.x, 11.x, and 12.x Sites

- 1. Single scripts from all data sources are migrated (data sources such as Excel, Access, XML, SQL, Text, or others).
- 2. Linked scripts from all data sources are migrated (data sources such as Excel, Access, XML, SQL, Text, or others).
- 3. Templates are only migrated along with script solutions; individual template migration is not supported. You must re-download templates from the new Studio Manager/Evolve environment. Local saved templates downloaded from previous UserGovernance/ Foundation sites will not work. Only the latest script version template is migrated.
- 4. Query without a template is migrated; a new template is generated as well as headers and publishing information. Here, the default template name is the script name.
- 5. Supporting files for all scripts are migrated along with the solution in Studio Manager/Evolve.
- 6. Input files are migrated with the solution/script.
- 7. Supporting files from different libraries are migrated in the same way they are in Studio: supporting documents from just one library are migrated.

5.6 Round-trip Scenarios for 10.x, 11.x, and 12.x Sites

- Round-trip scripts are "composite" scripts. A script is marked composite if the template
 contains more than one script information from the same site. The information of the
 composite is marked only by clicking the download button on the source site.
- 2. We recommend migrating single and linked files before migrating composite scripts.
- 3. When migrating composite scripts, read the preceding script and check its migration status. If it did not migrate ('errored'), an error message will direct you to migrate that script first.
- 4. After the preceding script is migrated, go to subsequent composite scripts from the same site to continue the migration. The composite script migration process examines local storage to identify migration information for the preceding script; this information (including for example the solution name and TeamSpace) is burned into the template.
- 5. The local storage offers key criteria for the composite script migration process; as noted in #4 above, data for the preceding script is fetched from local storage. Across machine precedence script migration (from utility) will not help.
- 6. Round-trip scenarios and multiple scripts published in templates via non-standard routes (with the exception of the multi-script submissions wizard feature) are not supported. As an alternative, migrate only the latest script and associated latest template. (That script is the only one that will remain published in the migrated template.)
- 7. All scripts in a composite script bundle are on the same TeamSpace.
- 8. Published scripts from other source foundation sites are removed from the template.
- 9. Published Connect-only mode scripts are removed (for all templates independent of round-trip scenarios).
- 10. Conflict resolution will restrict each template migration if reference scripts do not exist.

Chapter 6 Errors/Warnings/Known issues and Troubleshooting guide

For a smooth migration, please follow the guidance in this Script Migration Guide and note the below list of issues you may encounter during script migration.

6.1 Errors

- The **If to Verify Text Condition** in Txr is not available in Studio 20.x. Scripts using this condition will not be migrated. Please remove this condition and try again.
- 10.x Document Attachment scripts. You will receive an error if attempting to run these scripts. Please re-configure the attachment and try again.
- Multiple scripts with different workflows.
- Query with a **Not Operator** in the criteria in combination with <, >, <=, >= .

6.2 Warnings

• 10.x Between operator files are displayed with a warning message: "The **FromTo** operator is converted as a between operator in Studio 20.x."

- 10.x Extended log is enabled as a comment in the log column. Message: "Extended Logs as a comment in log column is not available in Studio 20.x."
- **INList** with a *,? Operator in it. Message: "Validate by list value with "*" will be converted into a Regular Expression List in Studio 20.x."
- Macro-based templates are flagged with a warning when the migration is complete.

6.3 Known issue list

- The Source login dialog box incorrectly states, "Enter foundation URL." Please enter your
 Central or User Governance URL instead.
- When you move from one page to another in a grid displaying scripts (in a selected library), the selection is lost.
- Download data is not performed from the utility if there are supporting documents in different libraries.
- When migrated to the Evolve site, the 10x document attachment Foundation script does not display the document attachment log.
- In the migration manager for the Source login, the display name is shown as DE.
- When you re-run the script in Evolve with "10.x Extended log enabled as comment in log column," an error message is shown because the script was changed.

6.4 Debugging and Troubleshooting

1. The trace is appsetting in the config of Winshuttle.MigrationManager.exe.config – for logging to be enabled in the application. By default, this is set to **Off**. To enable it, set it to **True** and restart the application.

- 2. QuerySingleScriptConversion is appsetting in the config of Winshuttle.MigrationManager.exe.config for conversion of the 10.x site **Query** single scripts conversion in the application. By default, this is set to **Off**. To enable, set it to **True** and restart the application.
- 3. TransactionSingleScriptConversion is appsetting in the config of Winshuttle.MigrationManager.exe.config for conversion of the 10.x site **Transaction** single scripts conversion in application. By default, this is set to True. To disable, set it to False and restart the application.
- 4. SpScriptMigrationEnabled is appsetting in the config of Winshuttle.MigrationManager.exe.config for viewing the **SharePoint** migration tab in the product. If you set it to **False**, the SharePoint migration tab will not be shown.

6.5 Fallback for getting data file

If the script download does not work using the normal process, a new service must be manually deployed to the customer's SharePoint server. Configure the following keys to deploy this service manually:

Key name: "OptimizeKeyEnabled"

This service works only if you have a timeout issue and the key's value is true in the app config.

Key name: "OptimizeKeyBindingPath"

This key is used to set the service path to download information from the server.

Key name: "ForceOptimizeKeyTesting"

This key is used to 'force download' the script information from the server.

Chapter 7 – Evolve to Evolve Script Migration Guide

Prerequisites

1. Excel 2013 – 2019 must be installed on the computer that the utility will run on. If it is not, you will receive an error message when you click the **Migrate** option.

Excel is a prerequisite for migrating **solutions** only. It is not required for downloading and/or storing contents in the utility's local SQLLite DB.

- 2. A 32-bit utility can run on OS-32-bit machines or 64-bit machines. A 64-bit utility must run on a 64-bit machine. There is no Excel bit dependency.
- 3. Microsoft .Net Framework 4.8.x

Note: A single instance of the application will be launched. When you open a second instance of the application, a warning message will be displayed.

Permissions

You must be an App Admin or have App Admin access to download the data from the source site. Ideally, migrations are performed by App Admins.

Entity Name	Role
Name Template/ SDS/ File Library	Only the App Admin for the specified app can export.
Policy/ Email Template/ Groups	Only the App Admin.
Solution	The Solution Developer role for the specified library.

For the destination login, you must have **App Admin** permissions on the logged-in app. You also must be assigned the **Solution Developer Group** role for all destination libraries from which you will be migrating solutions. Ideally, you will be an App Admin or a Global Admin.

Local Storage

The local storage is in a SQLLite database created in an executable bin; this is created when you launch the utility for the first time.

The SQLLite database stores the following information:

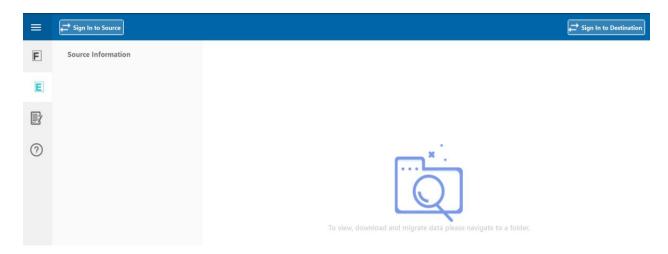
- 1. The local storage is key to the application. Changes to it will create inconsistencies.
- 2. After all information from the source is downloaded to local storage, there is no further need to connect to source Workgroup or Foundation sites.
- 3. The utility bin can be copied to any VM (along with the DB) which has access to the Evolve destination site.

Welcome to Evolve to Evolve Migration Manager



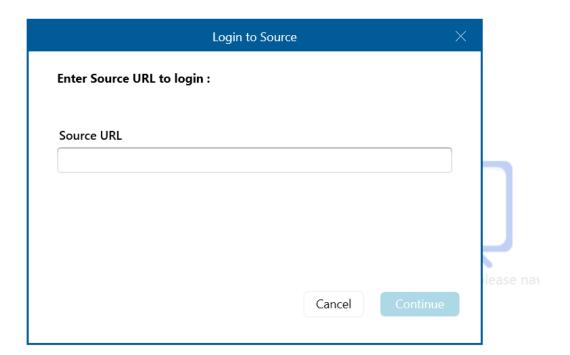
Getting started with an Evolve to Evolve Migration

Click **Continue** to launch the Migration Manager Utility. Click **E** to initiate the Evolve to Evolve migration.

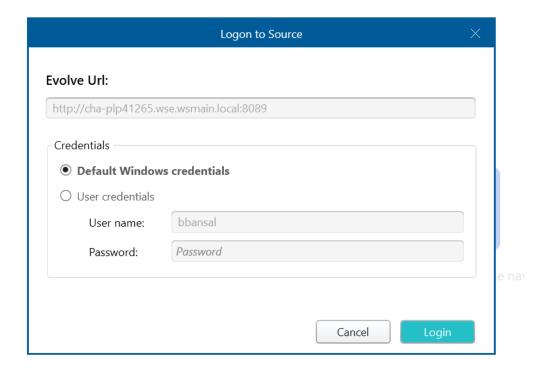


Sign-in to the Source Site

To download the data, sign-in to the source site (Evolve, in this case). Click **Sign-in to Source Site** and enter the Evolve site URL.

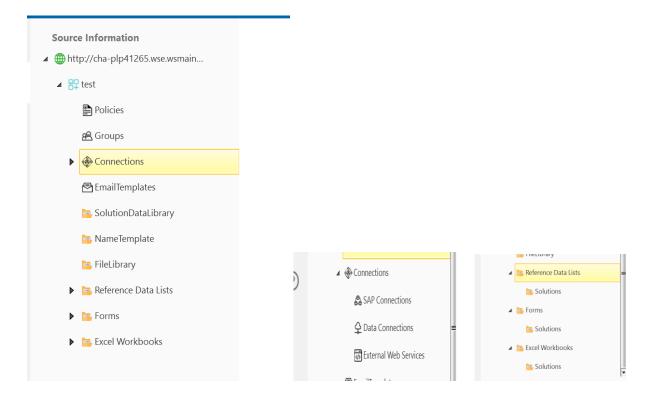


Enter the credentials and click **Login**. All apps you can access will be listed; these may include Administrator, Reference Data, and any of the User apps.



Source Information

Select an app from which you would like to download data. A tree will be generated; you can expand it to list the various nodes.



Migrate the Data: a Three-step Process

Action	Details	Enabled
Source Data Fetching	This fetches the basic details for the selected entity. For example, Name, Description, and Type.	This action is performed upon node selection, and to take this action, you must be logged-in to the source site.
Download the Data	This downloads the details required to migrate.	This button is displayed if you have logged-in on the source site – it will be displayed on the logged-in app.
Migrate the Data	This imports the data into the logged-in destination site.	This button is displayed if you have logged-in on the destination site – it appears when you download a selected record from the grid.

Source Data Fetching

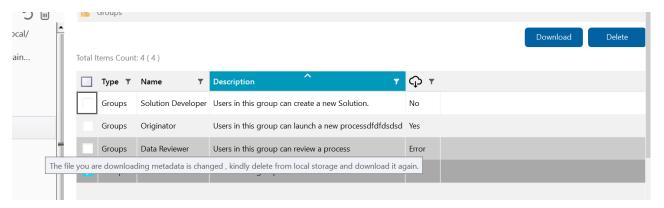
This process fetches the basic details for the item you select.

Name	Action
Policies	View metadata for all policies in the logged-in app. Metadata can include the Policy Name, Description, and Type (Transaction or Query).
Groups	View info for all groups in the logged-in app. Info can include the Name, Description, and Type (Groups).
Connections	
SAP Connections	View all SAP connections in the logged-in app. This info can include the Name, Description, and Type (SAP Connections).
	Global Connections are displayed in the Administrator App only.
Data Connections	View all data connections in the logged-in app. This info can include Name, Description, and Type (Data Connections). Global Data Connections are displayed in the Administrator App
External Web Services	only. View all web services in the logged-in app. This info can include Name, Description, and Type (External Web Services). Global External Web Services are displayed in the Administrator App only.
Email Templates	View all email templates in the logged-in app, for the selected locale (default locale is English). This info can include Name, Description, and Type (user-defined or system-defined).
Solution Data Libraries	View all solution data libraries in the logged-in app. Global solution data libraries are visible on the Administrator App only.
Name Templates	View all name templates in the logged in app. Global name templates are displayed on the Administrator App only.

File Library	View all file libraries in the logged in app. Global file libraries are	
	visible on the Administrator App only.	
Library Name	View all Reference Data, Forms, and Custom Excel Workflow	
(Type: Reference Data, Forms,	, libraries.	
or Custom Excel Workflow)		
Solutions	View all solutions that exist in the selected library type.	

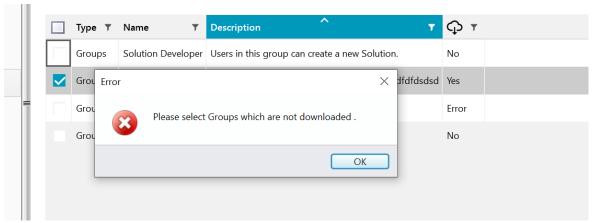
Download Data

- 1. Select single or multiple listed items from the grid from which you want to migrate data and then click **Download**. The details required for migration will be downloaded.
 - If the download is successful, **Yes** will appear in the download column and the required migration details are saved in local storage.
 - If there is an error when downloading, **Error** will appear in the download column and Error is displayed in the Tooltip.
 - By default, the download column reads No.



2. You cannot re-download contents for all implemented elements, for an Evolve to Evolve migration. These elements can include Policies, Groups, SAP Connections, Data Connections, External Web Services, Solutions, Name Templates, File Libraries, and Solution Data Libraries.

To re-download contents, delete the data from the local storage and then click **Refresh**; this will pull all the data from the Evolve server.



3. You can apply the filter on the displayed columns, to filter for the data you require.

4. Pagination is displayed: 10, 20, 50, 100 and any larger number which reflects the total item count. The pagination size is 10, and the pager will not be displayed if includes fewer than 10 items.

Sign into Destination Site

- 1. Click **Sign into Destination Site** and select the app to which you want to migrate data.
- 2. You can switch between any apps to which you have access.
- 3. You can sign out from one destination site and login to another destination site.
- 4. **Destination Status** and **Migration Fail Reason** columns are added to the grid after you login to the destination site.

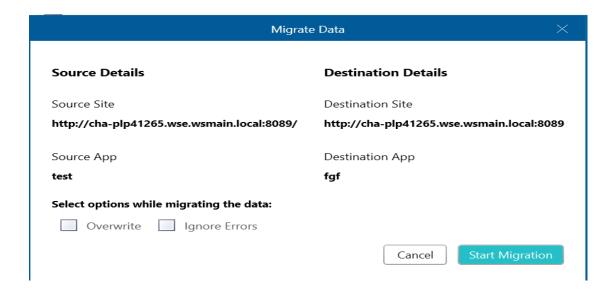
Migrate Data

Select the single or multiple records you want to migrate and click **Migrate**. You will then be able to select migration options.

Import Options

1. Policies

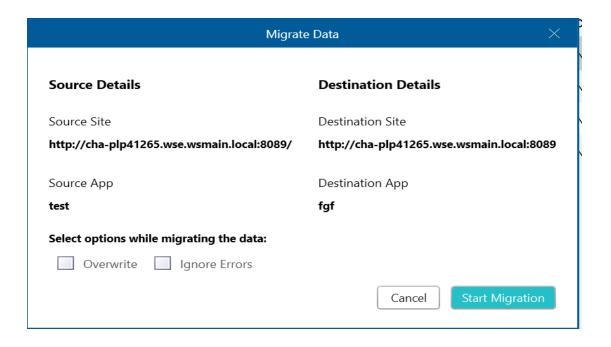
Migrate Option	Description
Overwrite (Optional)	Unchecked (default): If the option is unchecked and there are policies on the destination app, either the error "Policies already exist" appears or the policies are created without an error.
	Checked: If the option is checked and there are policies on the destination app, policies are overwritten without an error.
Ignore Errors	Unchecked (default): If the option is unchecked and the SAP Server, Group, and Username are not available on the destination site, either an error message appears or policies are created without an error.
	Checked: If the option is checked and SAP Server, Group, and Username are not available on the destination site, policies are created without an error.



2. Groups

Groups are exported and imported with user association only. They are not exported and imported in association with AD Groups, or with a policy, library, or solution.

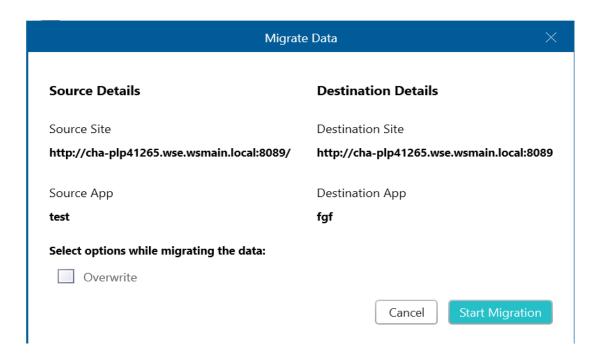
Migrate Option	Description
Overwrite (Optional)	Unchecked (default): If the option is unchecked and groups exist on the destination app, the error "Groups already exist" appears or groups are created without an error.
	Checked: If the option is checked and groups exist on the destination app, groups are overwritten without an error.
	Note: When overwriting the groups, previously associated users and AD Groups will not be deleted.
Ignore Errors	Unchecked (default): If this option is unchecked and you are not on the destination site, either an error appears or the groups are created without an error.
	Checked: If this option is checked and you are not available on the destination site, groups are created without an error.



3. Email Templates

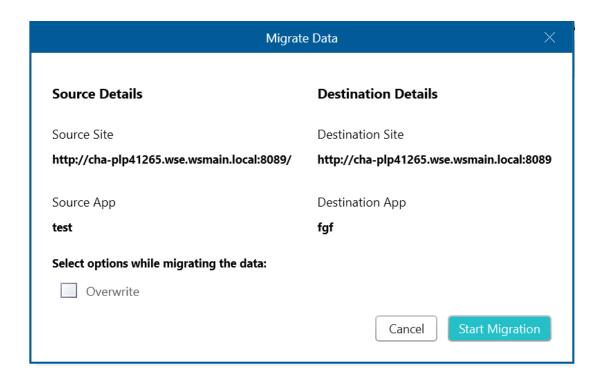
- Templates with all locales are exported and imported.
- You can import the user app email template to the Admin app and vice versa.

Migrate Option	Description
Overwrite (Optional)	Unchecked (default): If this option is unchecked and email templates exist on the destination app, either the error "Email Templates already exist" appears or the email templates are created without an error.
	Checked: If this option is checked and email templates exist on the destination app, the email templates will be overwritten without an error.



4. Connections (SAP/ Data/ External Web Services)

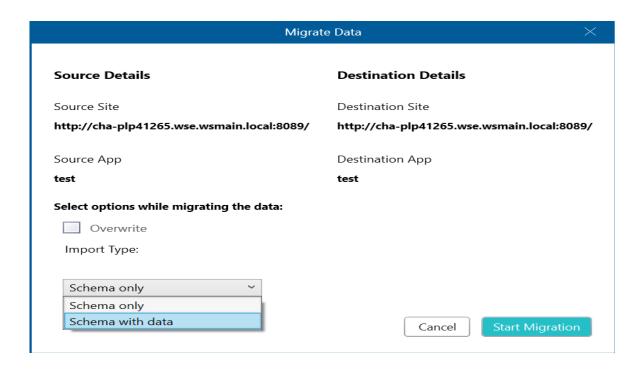
Migrate Option	Description
Overwrite (Optional)	Unchecked (default): If this option is unchecked and connections (SAP/data/external Web services) exist on the destination app, the error "Connections {0} with this name already exists in this app or in one of the other apps" appears or the connections are created without an error.
	Checked: If this option is checked and Connections (SAP/Data/External Web Services) exist only on the destination app (not for Global Connections), either the error "Connection {0} with this name not exist in this app" appears or connections are overwritten without an error.
	To overwrite global connections, select Administrator App .



5. Solution Data Libraries

You can rename solution data library names from the grid (column name: Destination Name) when migrating the data.

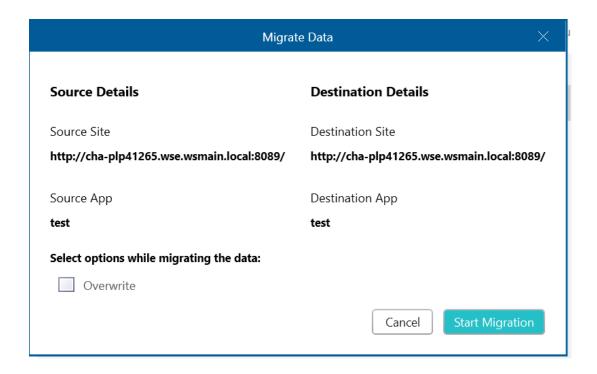
Migrate Option	Description
Overwrite	Unchecked (default): If this option is unchecked and the solution data library exists on the destination app, either the error "Solution Data Library already exists" appears or the solution data library is created without an error.
	Checked: If this option is checked and the solution data library exists on the destination app, the solution data library with the same name is deleted from the destination app and a new one with the same name is created.
Import Type	Schema Only: This will migrate the schema of the solution dataset.
	Schema with Data: This will migrate the schema and data of the solution dataset.



6. Name Templates

You can rename name templates from the grid (column name: Destination Name) when migrating the data.

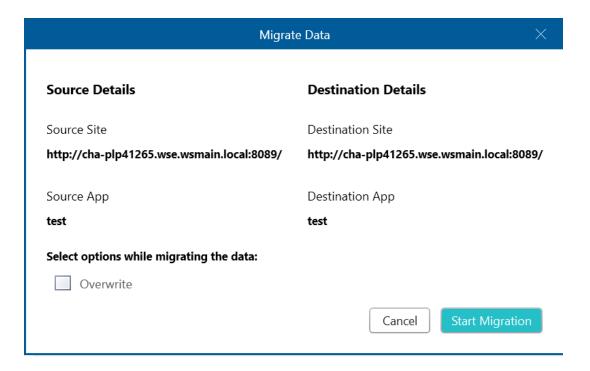
Migrate Option	Description
Overwrite	Unchecked (default): If this option is unchecked and name templates exist on the destination app, either the error "Name Templates already exist" will appear or the name templates will be created without an error.
	Checked: If this option is checked and name templates exist on the destination app, name templates with the same name are deleted from the destination app and new name templates with those names are created.



7. File Library

You can rename file library names from the grid (column name: Destination Name) during the data migration process.

Migrate Option	Description
Overwrite	Unchecked (default): If this option is unchecked and the file library exists on the destination app, either a "File Library already exists" error appears or the file library is created without an error.
	Checked: If this option is checked and a file library exists on the destination app, file libraries with the same name are deleted from the destination app and new ones with the same names are created.



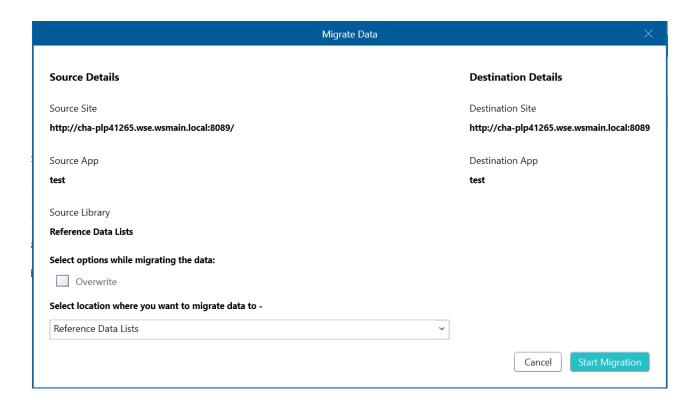
8. Solutions

Click Migrate to view libraries based on the type of solution you select. For example, if you
select Reference Data solutions, all reference data type libraries on the destination app will be
displayed.

Libraries on which you have the Developer role on the destination site will be displayed.

• You can rename the Solution Name from the grid (column name: Destination Name) when migrating the data.

Migrate Option	Description
Overwrite (Optional)	Unchecked (default): If the option is unchecked and solutions exist on the destination app, the error "Solutions already exist" appears or the solutions are created without an error.
	Checked: If the option is checked and solutions exist on the destination app, solutions are overwritten without an error (a new version of the solution is created).

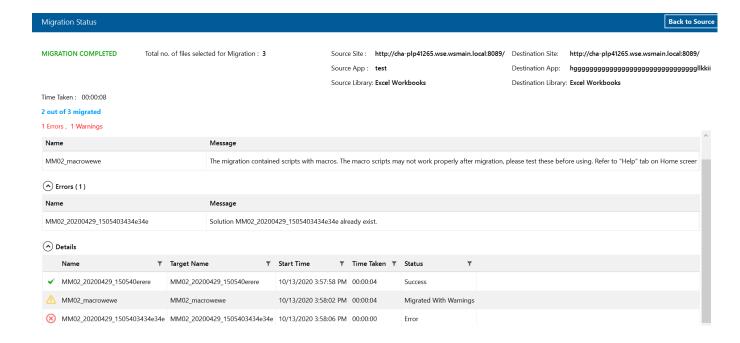


Start Migration

- 1. Click **Start Migration** to launch a view of the migration displaying file-by-file progress.
- 2. If the migration process does not start for any of the pending files, you can quit (stop) the migration.
- 3. The final view will show the migration status for all the files.
- 4. Click **Link for error and warnings** to see error and/or warning information for the selected entity.
- 5. If you switch the app, the migration status will be changed accordingly.
- 6. You can apply filters on the displayed columns according to the data you require.

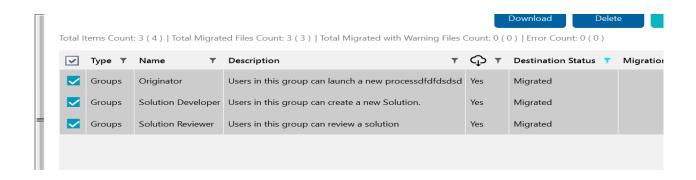
Migration Status

Migration Status	Description
Success	The record has successfully migrated.
Error	The record migrated with errors.
Migrated with Warnings	The record migrated with a warning.



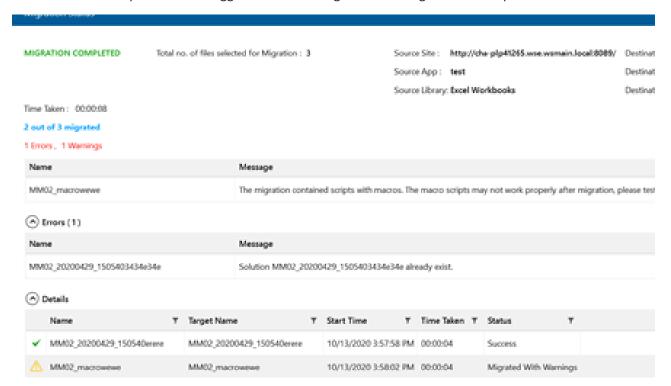
Item Count

In the light gray text in the below screenshot, the **filtered items count** is 3 and the **total item count** is 4. This is displayed in the format 3 (4).



Solution Migrated with Warning

A macro-based template will be flagged with a warning when the migration is complete.



Migration Mapping

After a successful migration, the data below is displayed. The data corresponds to the migrated record.

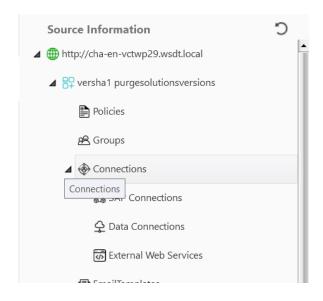
Mapping Field	Description
Created by	The user who is logged into the Evolve App to migrate materials.
Created Date/ Modified Date	The time when the utility is running with the purpose of importing solutions.

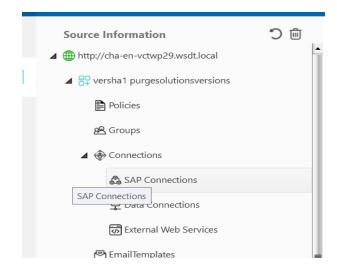
Delete Feature from Tree View

1. This will delete all data from the local storage for the selected node.



- 2. Select the app and click Delete to delete all subfolders within this app.
- 3. Select the Evolve Site URL and click **Delete** to delete all site data.
- 4. The Delete button is only available for use with subfolders. For example, in **Connection node**, if you select the node, the delete button is not visible. It is visible only when you select individual folders within the Connection node (such as SAP Connections, Data Connections, or External Web Services).





Refresh from the Tree View

This will refresh data from the Evolve server and the data will be displayed in the grid. **Refresh** will add the newly added data only; it will not delete or update the existing data in local storage.



Node	Description
Policies/ Groups/ Email Templates/ Solutions	Newly added data is pulled from the Evolve server and is shown in the grid. Data is fetched according to the ID (the Policy ID or the Group ID , for example).
Solution Data Libraries/ Name Templates/ File Libraries/ Connections	Newly added data is pulled from the Evolve server and is displayed in the grid. Data is fetched by Item Name (Connection Name, for example).

Download Functionality when data on the source site has been changed

If you select data from the tree view ("fetch" data) and have not downloaded it, and data on the source site is changed, the fetched data will not be overwritten if you hit **Refresh**.

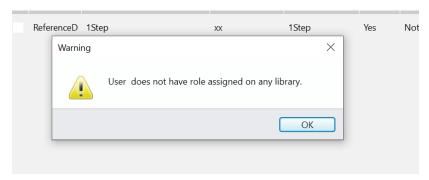
Entity	Action
Policy/ Groups/ Email Templates/ SAP Connections/ Data Connections/ External Web Services/ Solution Data Library /Name Templates/ Solutions	If data for one of the entities listed in the "Entity" column at left has been changed on the source site (data such as the name, description, or information for any other field) and you attempt to download the content, you will get the following error:
	"Metadata for the file you are downloading has been changed. Please delete the file from local storage and download it again."
Solutions	If you create a new version of the solution on the source site and you then attempt to download the content, you will get the following error:
	"The file you are downloading metadata is changed, kindly delete from local storage and download it again."
File Library	File library data cannot be edited from the site.

Download Error when deleting the data from the source site

If you fetch data and have not downloaded it, and data is deleted from the source site, you will receive a "Not Found" error when you click **Download**. This will occur when downloading data for any of the following: Policies, Groups, Connections, Email Templates, Solution Data Library, Name Templates, File Library, and Solutions.

Migrating Solutions without permissions on any library

If you do not have **Solution Developer** permissions on any library on the destination site to which you want to migrate data, you will receive the error message below when you click **Migrate**.



Migration Logs

- Migration logs are within a separate menu to the left. They include history for all migrations which used the same instance of the utility executable.
- You can export details to Excel.
- You can apply a filter on the columns according to the data you require.



Migration Details	Description
Status	The migration status (Error, Success, or Warning).
Entity Type	The data type (for example, Policies or Groups).
Entity Name	The entity name. For policies, the policy name is displayed.
Source URL	The URL for the Evolve site URL from which you are downloading data.
Destination URL	The URL for the Evolve site to which you are migrating data.
Migration Time	The time required to migrate the data.
Detail	If you receive errors or warnings when migrating the data, it will appear in the Detail column. If there are no errors or warnings, this column will be blank.

Key Migration Information

- 1. This migration works for Studio Manager and Evolve for the following elements only: Policies, Groups, Email templates, Connections, Solution Data libraries, Name templates, File libraries, Custom workflow solutions, Forms, and Reference Data solutions.
- 2. Standard Workflows (NDR, 1-step, and 2-step) are not within the scope of the migration.
- 3. Cross-linked scenarios are not within the scope of the migration.
- 4. Only solutions with **production status** are migrated. Solutions with rejected, in-review, or archived status are not downloaded to the local storage utility.
- 5. Only the latest version of the solutions are migrated in tandem with the associated latest template. Once metadata and contents from the source have been downloaded to local storage, hitting **Refresh** will not overwrite information. Instead, hitting Refresh will add new entries.
- 6. Datafiles (templates submitted as a datafile) are not migrated.
- 7. Users are not picked when exporting and importing Groups from Windows to a SAML setup. Users are identified by their identity and both authentication systems will have discrete identities for the same username.
- 8. If a user migrates data from one SAML set-up to another, user credentials from the first log-in to the source site will be picked by the destination site as well.
 - If the source and destination logged-in site or the User are the same, the user credentials used on the source site will be used on destination site.
 - If the source and destination logged-in site or the User are different, do the following: Signin to the source site, download the contents, and close the utility to migrate the data with the different credentials. Then, relaunch the utility and log in on the destination site with the required credentials and migrate the same.

Additional Details

- 1. Multi-script solutions are available.
- 2. Supporting files for all solutions are migrated along with each solution.
- 3. You can migrate data from one set-up to another.
- 4. You can migrate data from one app to another app within the same set-up.
- 5. You can migrate data from a Windows to a SAML set-up.
- 6. You can migrate data within a localized set-up.
- 7. Template formatting and macros remain the same when you migrate the solution from the utility.