Microsoft

WorkshopPLUS: SharePoint Server Administration

SharePoint Migration Tool

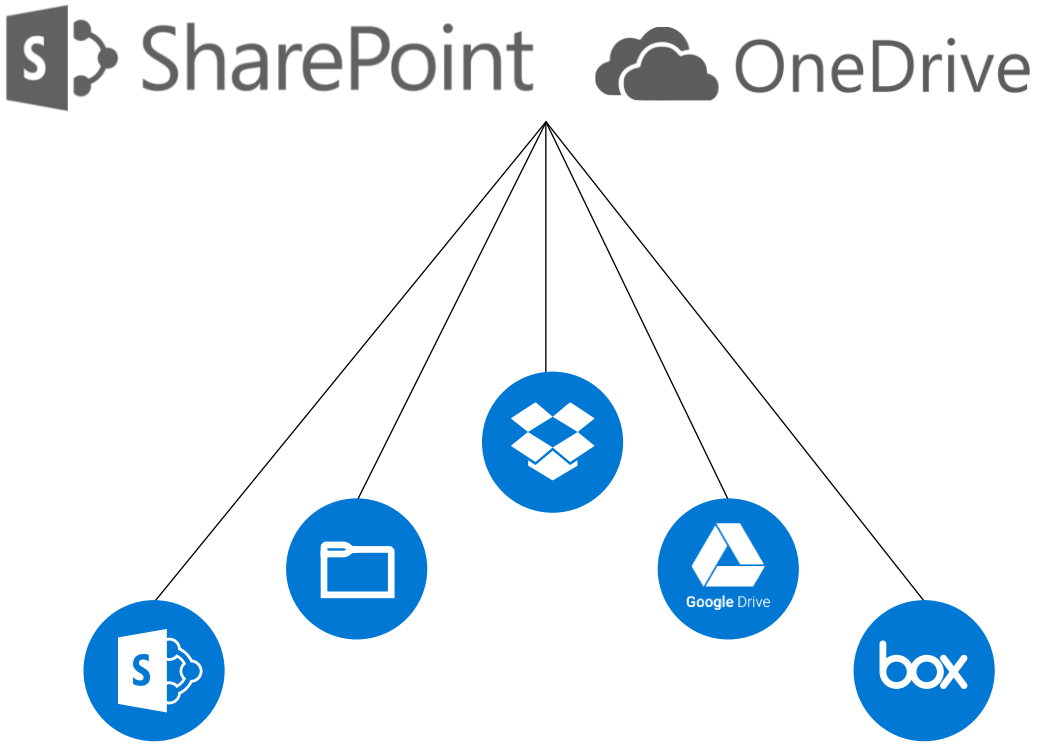
Agenda - Chapter 1

1	**Migration needs, options and tools**
2	Introduction
3	Requirements and limitations
4	How it works?
5	Click through
6	Advanced settings
7	Customize your migration

SharePoint Migration Tool – migration needs

Bridging the gap with migration

- Migration is the ability to move content from different sources to SharePoint and OneDrive in Microsoft 365.



SharePoint Migration Tool - Migration options

Maintaining a hybrid model

Continue to maintain hybrid model providing services on-premises or online based on the organization needs

Continue to use existing customizations on-premises

Enrich traditional on-premises scenarios with cloud innovation

Migration to cloud

Migrate at your own pace to the cloud with little or no disruption to existing service

Pilot Microsoft 365 services with a subset of users

SharePoint Migration Tool – migration tools

Agenda - Chapter 2

1	Migration needs, options and tools
2	**Introduction**
3	Requirements and limitations
4	How it works?
5	Click through
6	Advanced settings
7	Customize your migration

SharePoint Migration Tool

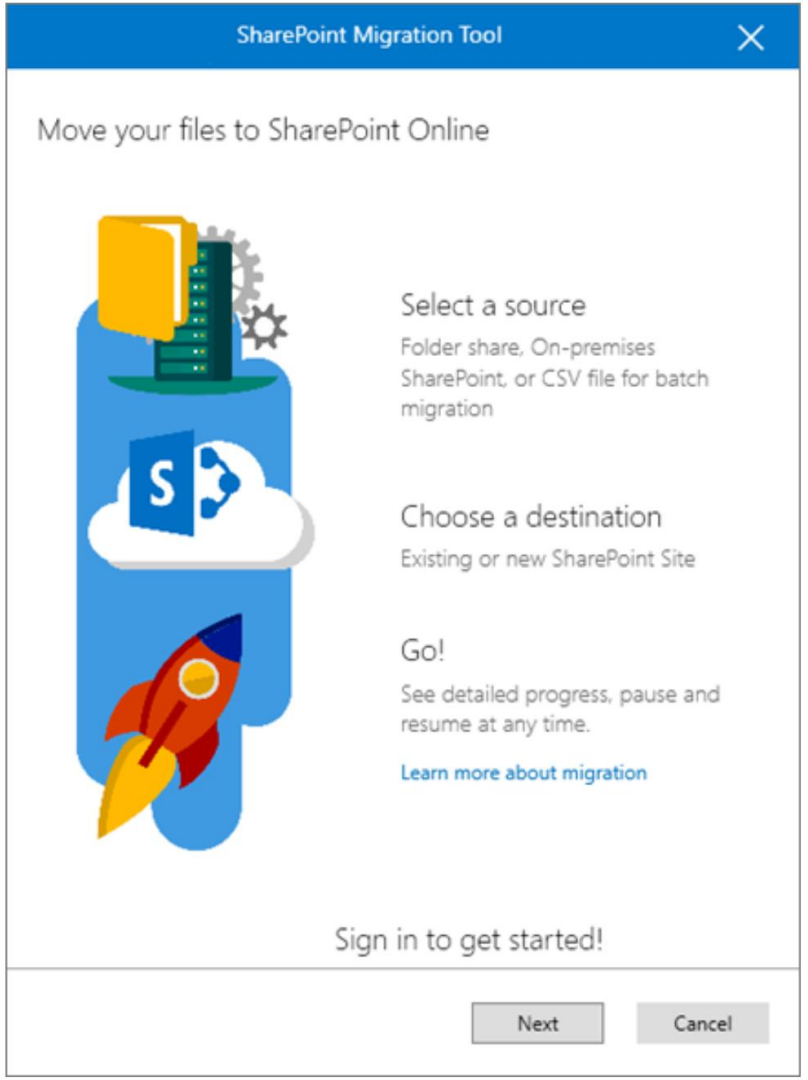
Free, simple, and fast

- Free, simple, and fast migration solution

  For migrating content from on-premises SharePoint sites and file shares to SharePoint or OneDrive in Microsoft 365
- It is available for all Microsoft 365 users.

Features

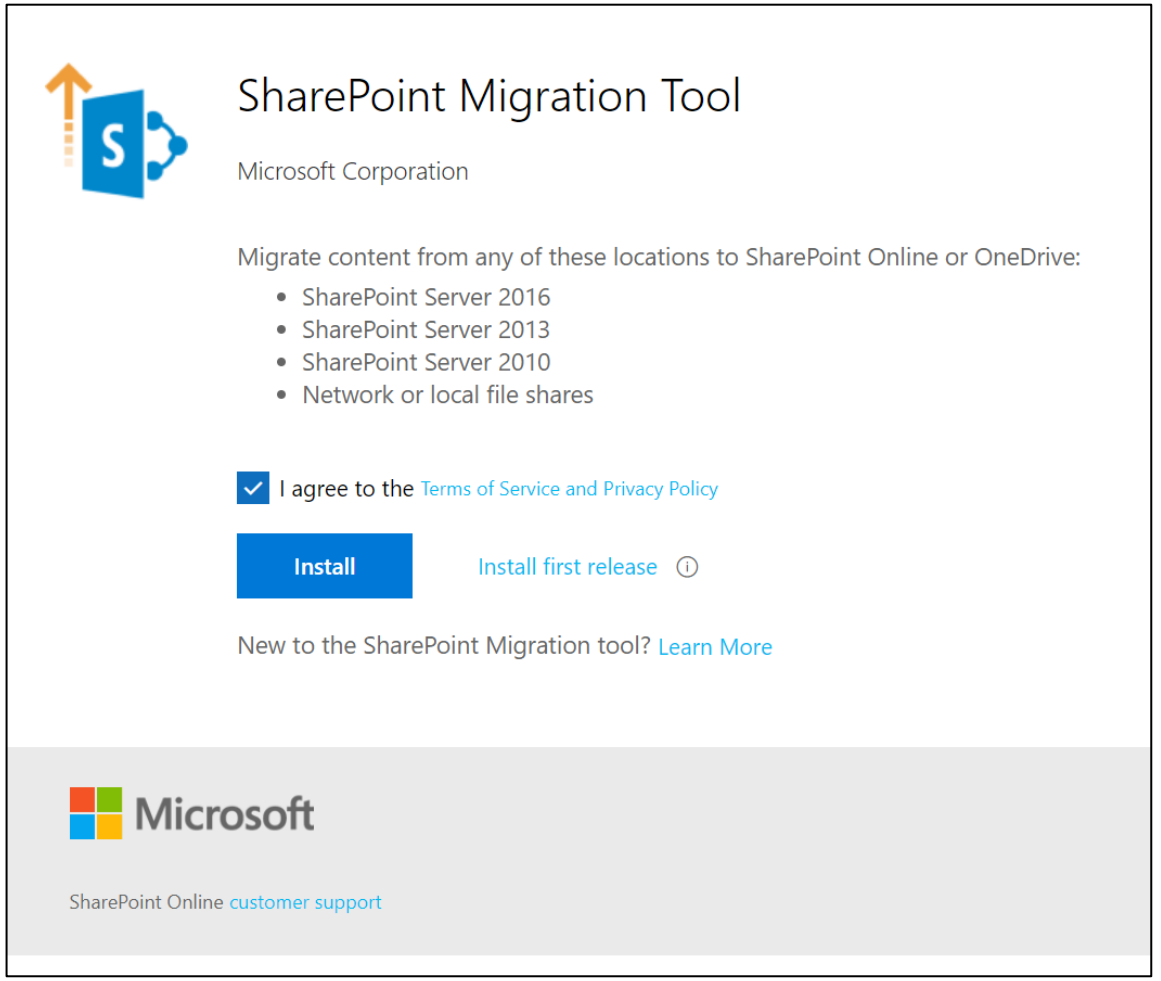
- Easy to use intuitive interface
- Migrate from file shares on-premises to SharePoint Online or OneDrive for Business
- Migrate from on-premises versions of SharePoint to SharePoint Online
- Supports CSV file for bulk migrations
- Detailed information and reports to track and troubleshoot migrations
- Support for MFA accounts



Install SharePoint Migration Tool

Download and install

- You can download and install the SharePoint Migration Tool here: https://aka.ms/spmt-ga-page
- **There is no offline installer for this app.**



More info: https://docs.microsoft.com/en-us/sharepointmigration/introducing-the-sharepoint-migration-tool

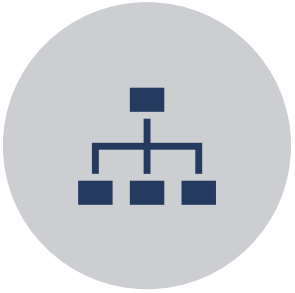
Agenda - Chapter 3

1	Migration needs, options and, tools
2	Introduction
3	**Requirements and limitations**
4	How it works?
5	Click through
6	Advanced settings
7	Customize your migration

SharePoint Migration Tool - Requirements

Specs	Recommended requirements for best performance	Minimum requirements (expect slow performance)
CPU	64-bit Quad core processor or better	64-bit 1.4 GHz 2-core processor or better
RAM	16 GB	8 GB
Local storage	Solid state disk: 150 GB free space	Hard disk: 150 GB free space
Network card	1 Gbps	High speed internet connection
Operating System	Windows Server 2012 R2 or Windows 10 client .NET Framework 4.6.2	Windows Server 2012, Windows 8 or better .NET Framework 4.6.2

SharePoint Migration Tool - Limitations



No options for custom metadata mapping

Not supported for SharePoint on-premises to SharePoint on-premises migrations

Currently SharePoint 2010, 2013 and 2016 are supported

Not supported for SharePoint Online to SharePoint Online migrations

Agenda - Chapter 4

1	Migration needs, options and, tools
2	Introduction
3	Requirements and limitations
4	**How it works?**
5	Click through
6	Advanced settings
7	Customize your migration

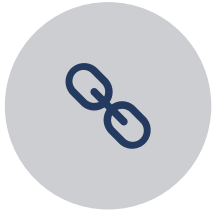
How it works?

The SharePoint Migration Tool provides a wizard-like experience..

Uses Migration API behind the secene

It migrates your data *from* your on-premises SharePoint Server document libraries and local file shares *to* SharePoint Online (SPO).

Microsoft 365 Authentication happens first once you select destination (SPO/OneDrive) followed by on-premises authentication.



After selecting source and source library, you are ready to submit the Migrate Job.

The ***scanning***, ***packaging***, ***uploading,*** and ***importing*** steps are performed in parallel across all the files submitted for migration.

Permissions

You need the write permission on the destination site collection and/or OneDrive (contribute/site collection admininistrator)

You need to have the read access to source (site collection or local file share)

Execution phases (1/2)

1

Authentication

- Authenticate destination tenant
- Associate submitted job with the tenant for later execution from even a different computer
- Account should be site collection admin

2

Scanning

- A scan is performed on every file
- Scans for known potential issues
- Confirms access to source and destination

3

Packaging

- A content package is created
- Package contains a manifest consisting of 8 XMLs

Execution phases (2/2)

4

Upload

- The data is encrypted at rest using the AES CBC 256 standard
- The files are encrypted along with the manifest files
- Package is uploaded to Azure with the manifest

5

Import

- The key is provided to SPO SAS
- Only Azure and SPO are interacting to fetch and migrate the content into the destination
- This process is timer job based

Encryption and Security

During the upload and import phases, data is encrypted, and Azure containers and keys are generated.

The default key to the container is generated programmatically and is only valid for three days.

This key is the only way to gain access to the container. It is generated randomly and not reused.

No one has direct access to the storage accounts or the containers.

Each container is dedicated to the customer who it was provided to and NOT reused.

The data is stored in the Azure blob anywhere from 30 to 90 days after which it is deleted.

Agenda - Chapter 5

1	Migration needs, options and, tools
2	Introduction
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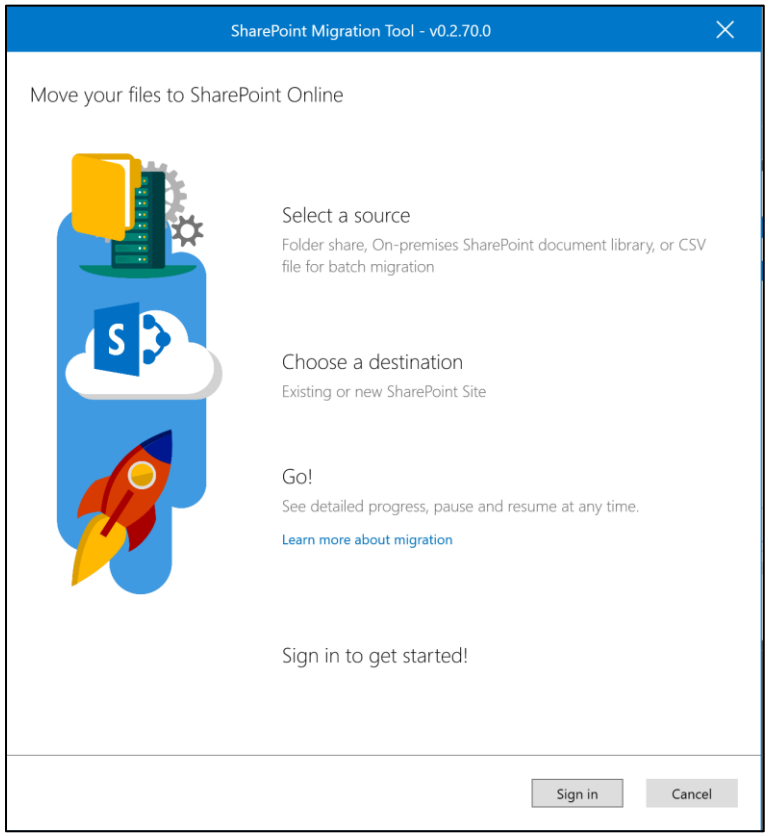
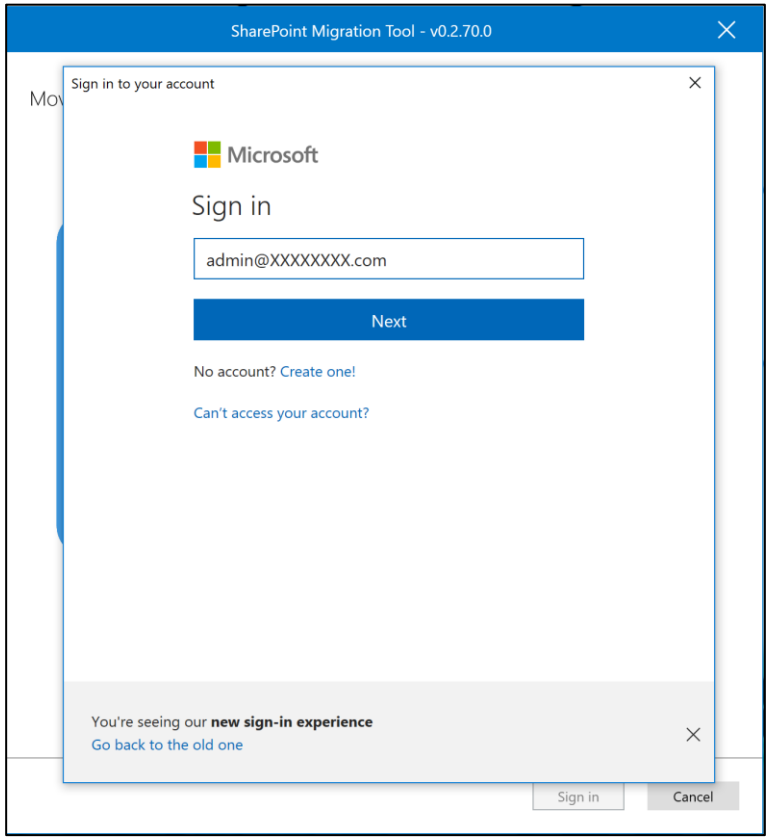
4	How it works?
5	**Click through**
6	Advanced settings
7	Customize your migration

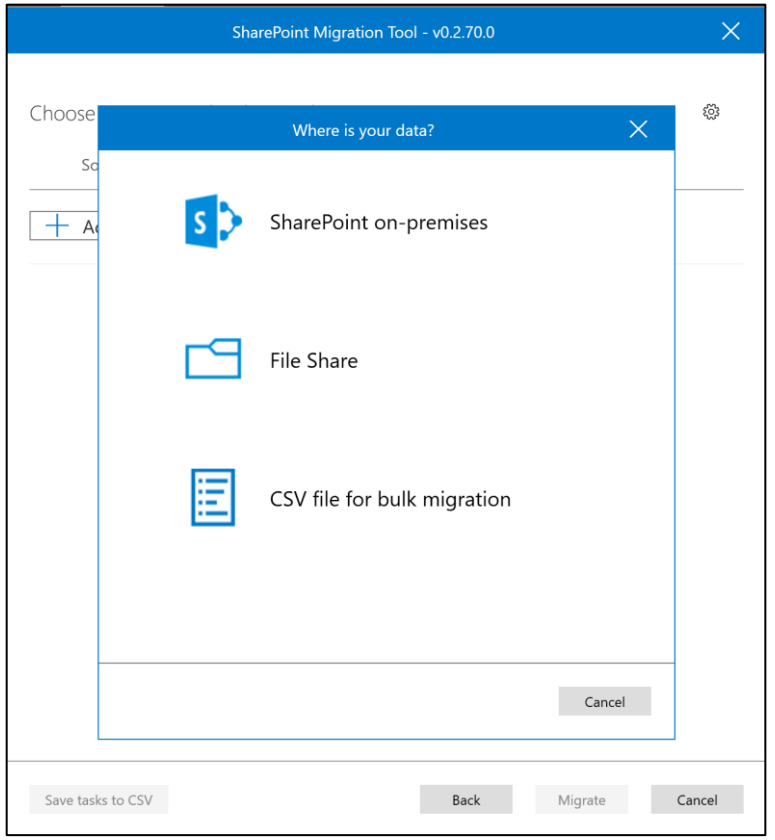
Sign in process



Start Wizard

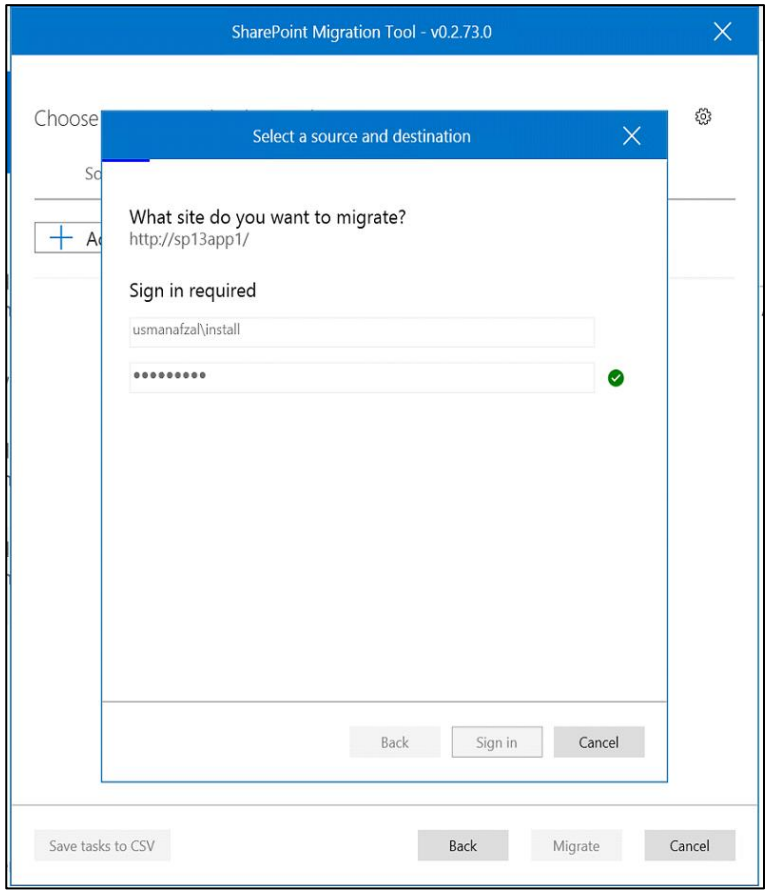


Enter Credentials

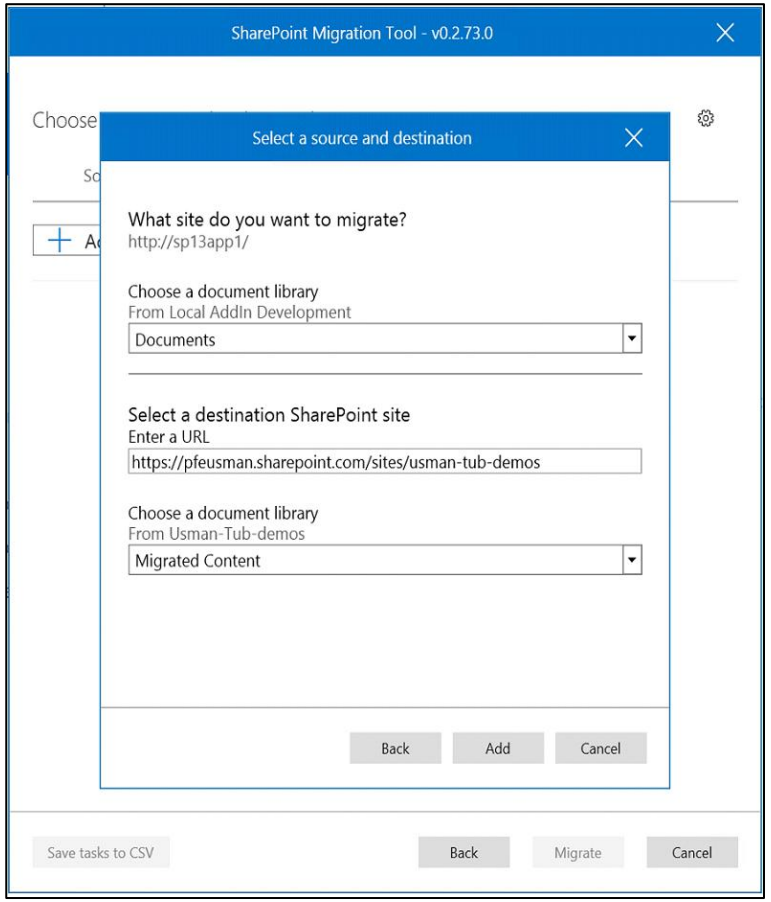


Select Source

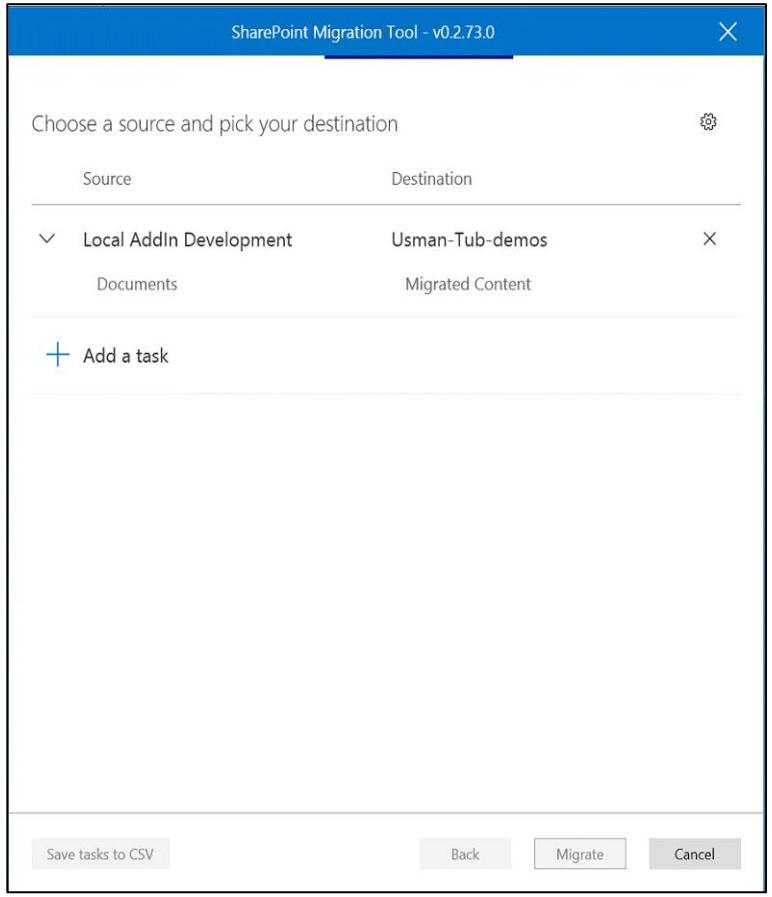
SharePoint as Source



Enter SharePoint Source URL

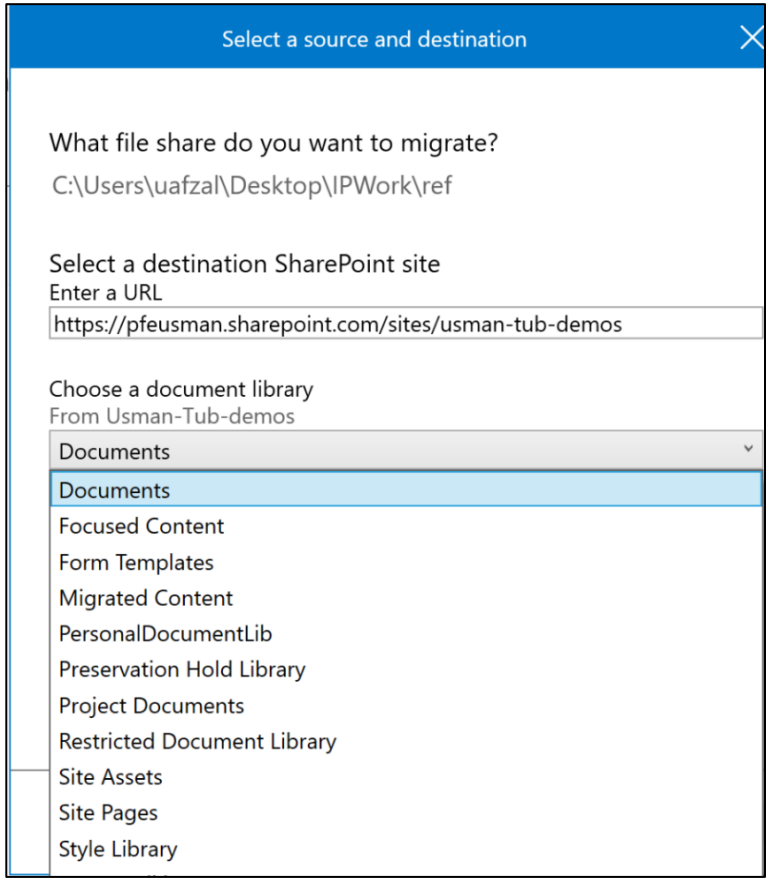


Specify Destination

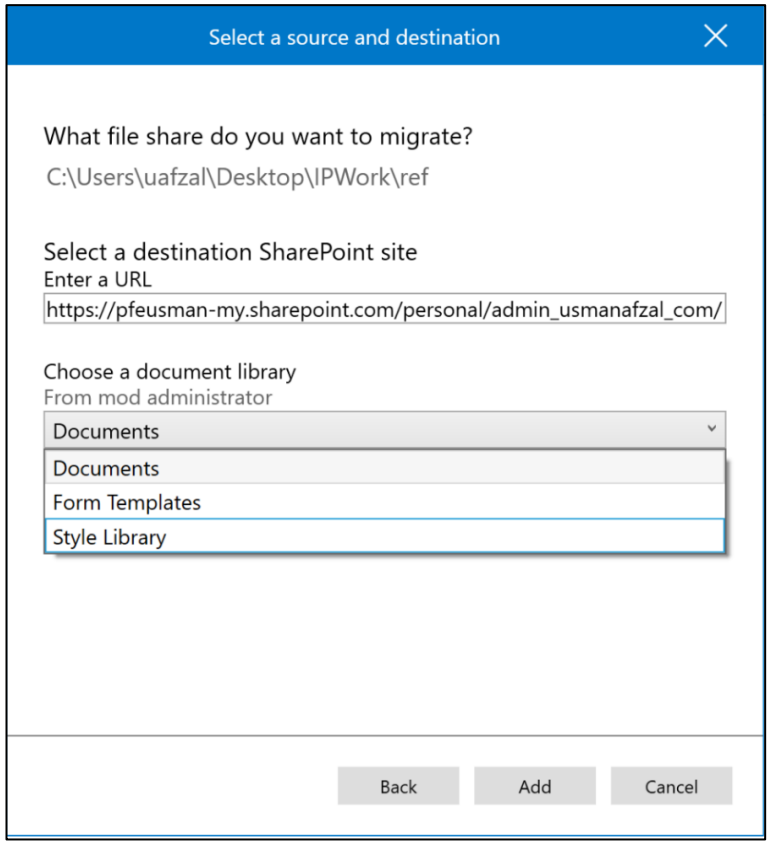


Review Job Config

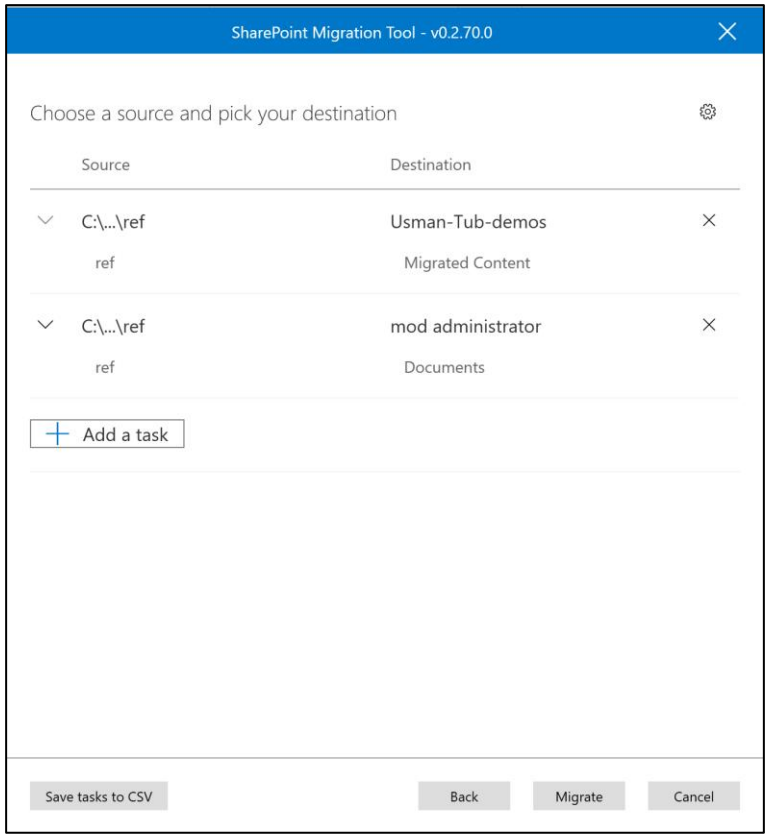
File Share as Source



Select Destination Site

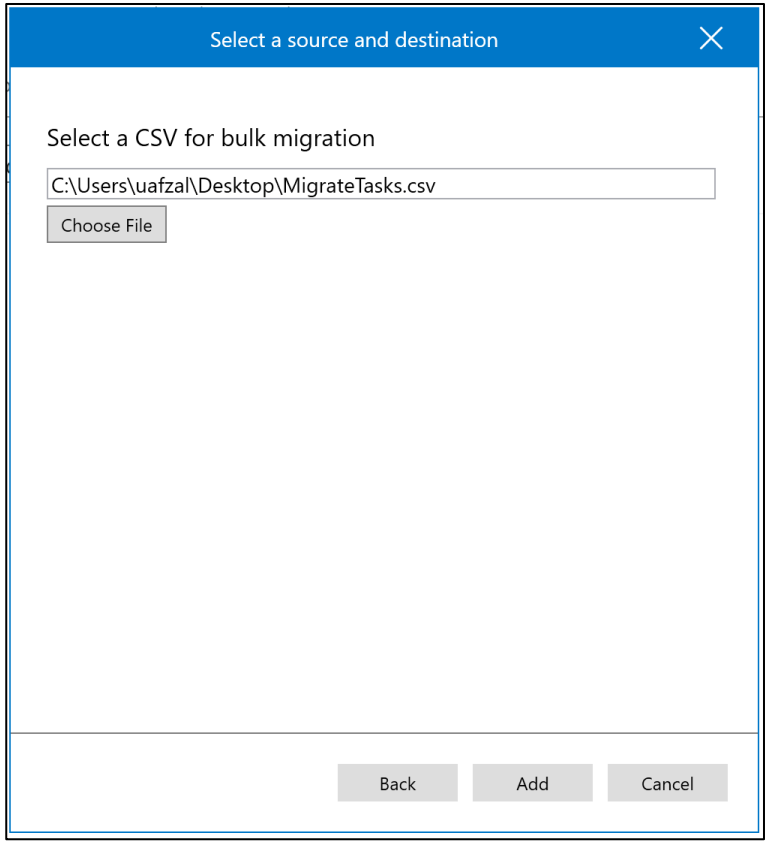


Select Destination Library

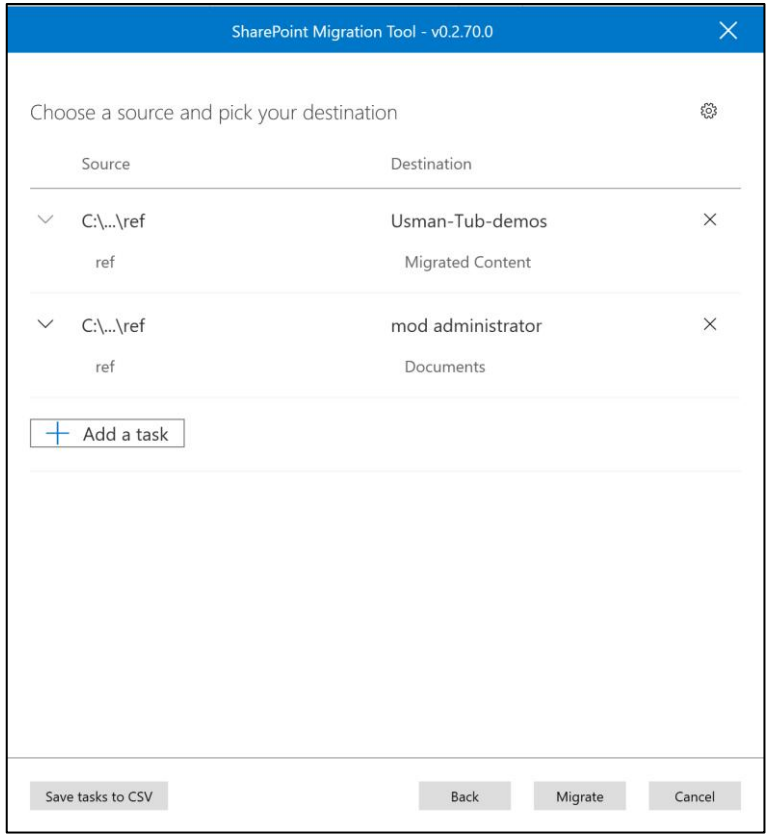


Review Job Config

CSV as Source

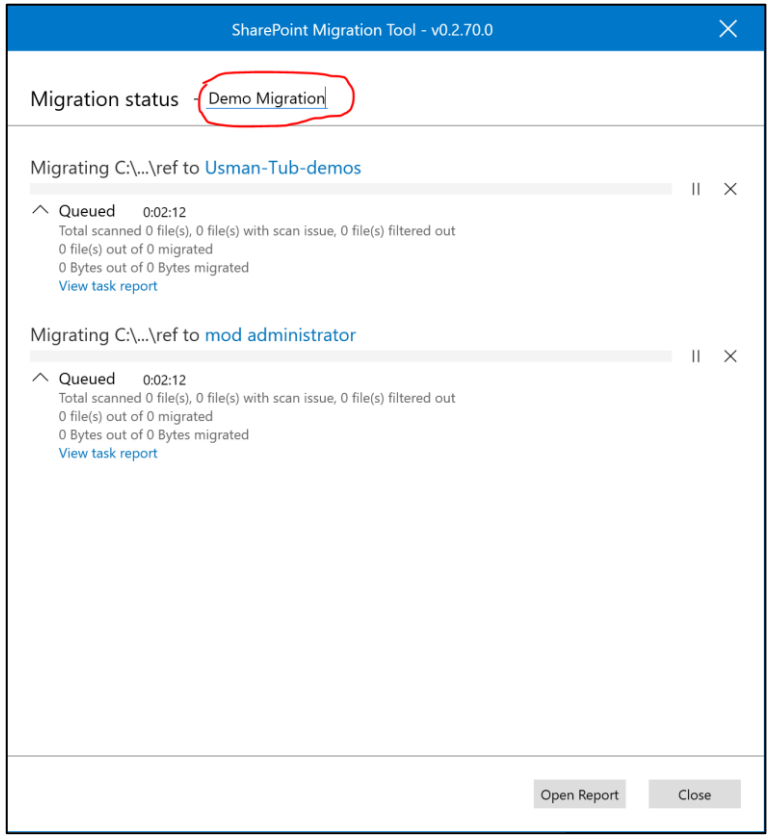


Specify CSV

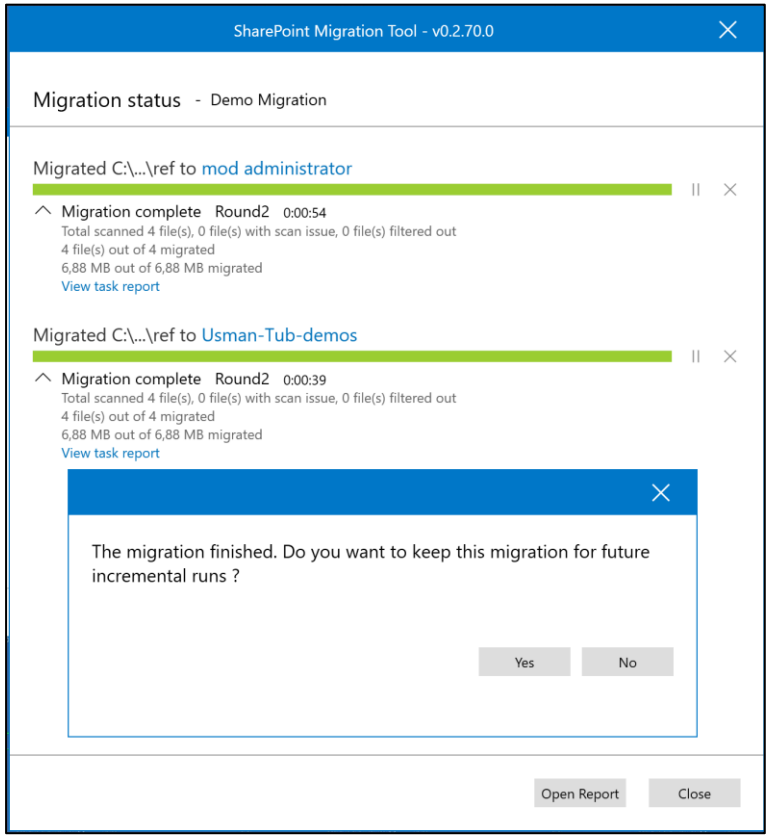


Review Job Config

Migration Progress



Review Progress



Job Completed

Migrating Permissions

	File share	SharePoint on-premises files
User is mapped between on-premises and SPO (either Dirsync has been run or a user mapping file is provided)	• There are only two types of permissions that will be migrated: Read and Write. • If a file has **Write** permission for User1, then the file will be set to Contribute for User1 in SPO. • If a file has **Read** permission for User1, then the file will be set to Read for User1 in SPO. • NOTE: At this time, the special permissions, such as Deny, will not be saved.	All the unique permissions on a file will be migrated to SPO. Inherited permissions will not be migrated.
No user mapping (not synced, no user mapping file)	Files will be assigned the default permission of the location to which it has been migrated in SPO.	Files will be assigned the default permission of the location to which it has been migrated in SPO.

Agenda - Chapter 6

1	Migration needs, options and, tools
2	Introduction
3	Requirements and limitations
4	How it works?
5	Click through
6	**Advanced settings**
7	Customize your migration

Advanced settings

Only perform scanning

If you wish to scan the files as a pre-assessment to migration, turn on **Only perform scanning**.

Enable incremental migration

It lets you rerun the migration jobs at a later date, migrating only the changes or additions since the previous run.

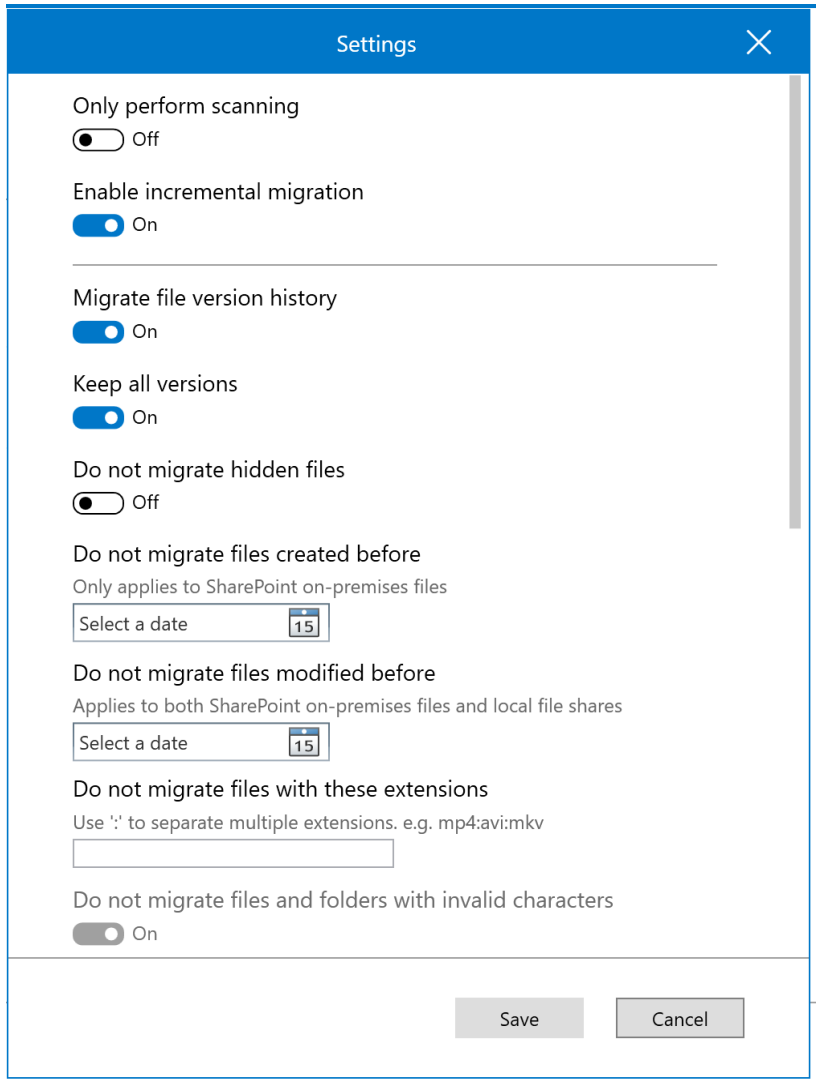
Migrate file version history

If set to **No**, only the most recent version of the file will be migrated.

If set to **Yes**, you can choose whether to keep all versions or limit it to a specific number.

Do not migrate hidden files

If turned **on**, hidden system files will not be migrated.



Advanced settings (Contd.)

Do not migrate files created before

If you choose to limit which files are migration based on creation date, set your values in this section.

This may be to limit the number of files migrated or to adhere to overall company governance policy regarding file retention.

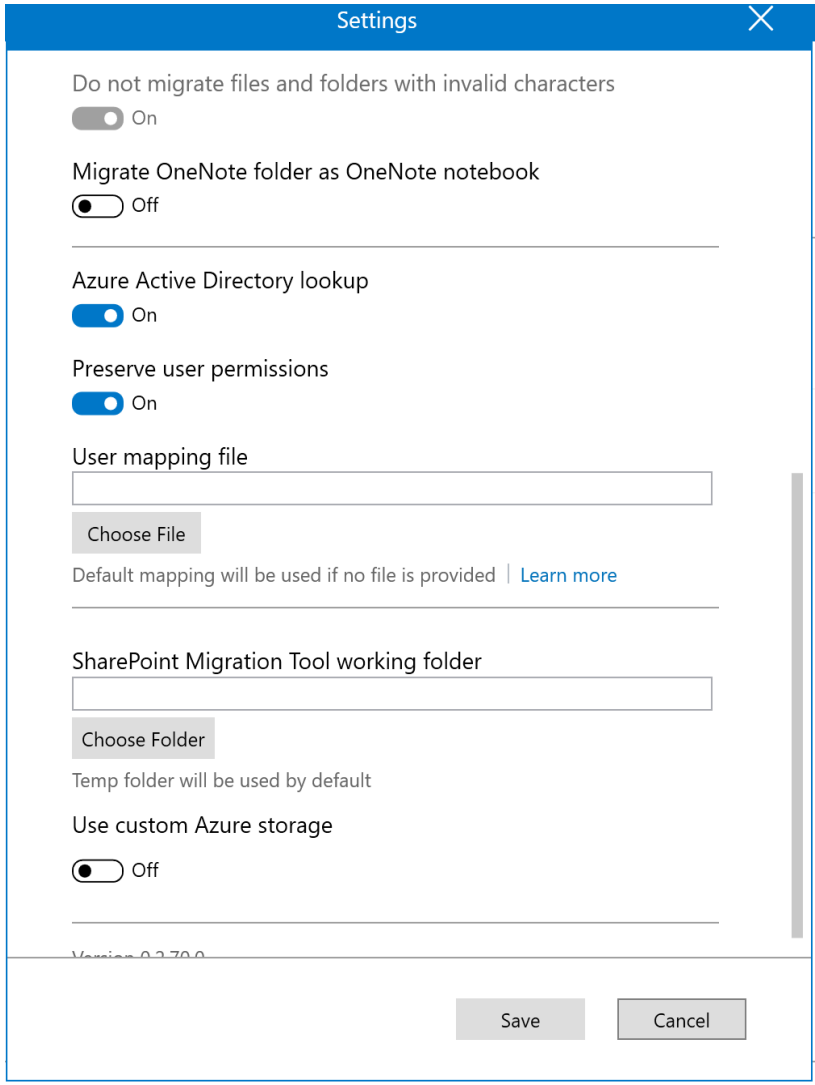
Do not migrate files modified before

If you choose to limit what files are migration based on modified date, set your values in this section.

This may be to limit the number of files migrated or to adhere to overall company governance policy regarding file retention.

Do not migrate files with these extensions

To prevent certain file types from migrating, list each extension, separating it with a vertical bar. For example, mp4|avi|mkv. Do not include the leading "." before the extension name.



Advanced settings (Contd. 2)

Do not migrate files and folders with invalid characters

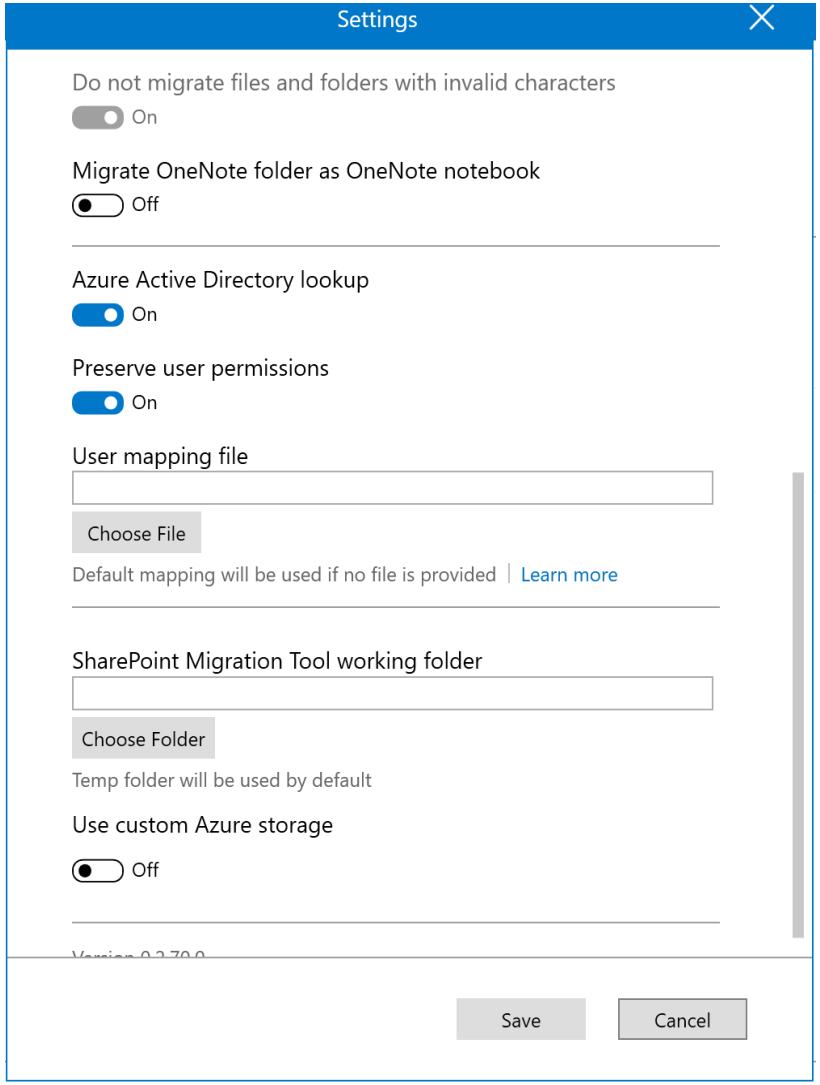
If set to **On**, the tool will skip any potential special characters. While this can improve performance when the source potentially contains a high number of files containing invalid characters, it also has drawbacks.

Azure Active Directory lookup

By default, this is set to **On**. If no User mapping file is provided by the user, then Azure Active Directory is used as the default for user mapping.

Preserve user permissions

By default, this is set to **On**. If set to Off, no permissions will be preserved.



Advanced settings (Contd. 4)

User mapping file

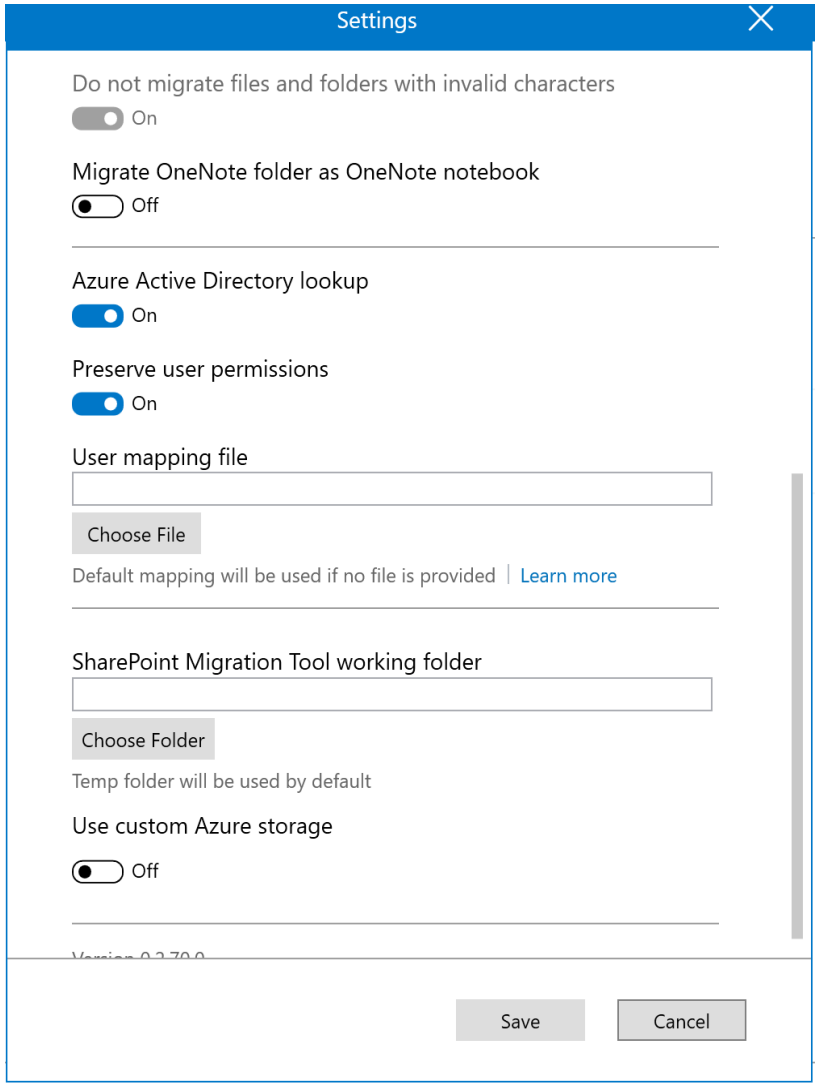
If you wish to use your own mapping file, select the file to be used by clicking **Choose file**.

SharePoint Migration Tool working folder

By default, a temp folder will be created. If you wish to specify a specific working folder, enter the name here.

Use custom Azure storage

If you wish to use your own Azure storage, set this value to On.



Agenda - Chapter 7

1	Migration needs, options and, tools
2	Introduction
3	Requirements and limitations
4	How it works?
5	Click through
6	Advanced settings
7	**Customize your migration**

Customize migration

Using a comma separated value (CSV) file for data content migration

- You can use a comma separated (CSV) file to bulk migrate your data.
- There are six columns needed in your CSV file
  - The first three are your **source values**, each providing detail about where your data is currently located.
  - The remaining three columns indicate the **destination** - the site, document library and optional subfolder to where you are migrating your data.
  - All six columns must be accounted for in the file, even if you are not needing a value for a given field.

	A	B	C	D	E	F
1	C:\MigrationTests\testFiles			https://contoso.sharepoint.com/sites/Sample/	DocLibraryName	OptionalSubfolder
2	https://sharepoint2013.com/sites/contosoteamsite/	Source DocLibrary	OptionalSubfolder	https://contoso.sharepoint.com/sites/test	Documents	OptionalSubfolder

Customize migration: Creating CSV

Using a comma separated value (CSV) file for data content migration

- This example shows how it would appear in a text file:

Format:
Source,SourceDocLib,SourceSubFolder,TargetWeb,TargetDocLib,TargetSubFolder

Example: File Share to SPO
`C:\MigrationTests\testfiles,,,https://contoso.sharepoint.com/sites/Sample/,DocLibraryName,DocLibraryName_subfolder`

Example: SharePoint on-premises to SPO
`https://sharepoint2013.com/sites/contosoteamsite/,DocumentLibraryName,DocLibrarySubfolder_name,https://contoso.sharepoint.com/sites/Sample/,DocLibraryName,DocLibraryName_subfolder`

Important: If you use the standard out-of-the-box Document library ("Shared Documents"), you must use the internal name "Documents" as the placeholder value for the Source Document Library (Column B) OR your Target Document Library (Column E) in your CSV file. If you enter "Shared Documents" in that column, you will receive an "invalid document library" error.

Customize migration: CSV fields

Field	Description
Source	Required: Enter either a file share path or an on-premises SharePoint Server site URL.
Source DocLib	Optional: Enter name of the SharePoint Server document library you are migrating. If you leave this field empty, all document libraries will be migrated. If you are migrating a file share, leave this column empty.
Source SubFolder	Optional: Enter the name of the subfolder in the document library. If this column is left empty, the migration starts from the root. If there is a value in this column, the migration starts from the subfolder and down. This column is used only for SharePoint Server sites. It is ignored for file share migration.
Target Web	Required: Enter the SharePoint Online site URL where the files are to be migrated.
Target DocLib	Required: Enter the name of the document library with the SharePoint Online site where the files are to be migrated.
Target SubFolder	Optional: Enter the name of the subfolder in the document library. If this column is left, then empty the files which will be moved to the root level.

Knowledge Check

Name the three sources for migration using SharePoint Migration Tool?

- SharePoint on-premises
- File shares
- CSV file with source information

What version of SharePoint on-premises are supported?

- SharePoint 2010, 2013 and 2016

Questions?

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