



# DocAve® 6 File System Migrator

## User Guide



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## What's New in this Guide

- General improvements for enhanced functionality.

# About File System Migrator

DocAve File System Migrator efficiently migrates documents from traditional Windows-based file systems or networked file shares to Microsoft SharePoint 2016, SharePoint 2013, SharePoint 2010, and SharePoint Online. SharePoint administrators can easily automate the process of consolidating the full spectrum of corporate-wide document sources onto SharePoint, therefore, maximizing the return on investment of existing content residing in local and shared file systems.

To ensure a complete and successful migration, DocAve's Pre-Migration Scanner provides a detailed analysis of the migration before it is performed. The DocAve Pre-Migration Scanner will detect and notify you of any illegal characters, user permissions, user names, user domains, and other legacy elements that must be mapped in order to migrate successfully into SharePoint.

File System Migrator allows organizations to:

- **Streamline the data transfer easily** from File systems to SharePoint
- **Preserve and map all associated metadata and security settings** of File System content during the migration
- **Plan migration jobs according to business needs** with granular or bulk content migration and customizable job scheduling

## Complementary Products

Many products and product suites on the DocAve 6 platform work in conjunction with one another. The following products are recommended for use with DocAve File System Migrator:

- DocAve Content Manager for SharePoint for restructuring or moving SharePoint content.
- DocAve Report Center for SharePoint to examine pain points in the SharePoint infrastructure and report on SharePoint user behavior and changes.
- DocAve Data Protection for setting backup and recovery points prior to adjusting SharePoint governance policies in this product.
- DocAve Replicator to perform live or event-driven, as well as scheduled or offline replication. Synchronization and management of all content, configurations, and securities is performed with full fidelity.

## Submitting Documentation Feedback to AvePoint

AvePoint encourages customers to provide feedback regarding our product documentation. You can [Submit Your Feedback](#) on our website.

# Before You Begin

Refer to the sections below for system and farm requirements that must be in place prior to installing and using DocAve File System Migrator.

## AvePoint's Testing Policy and Environment Support

### Supported Software Environments

AvePoint is committed to testing against all major versions and service packs of SharePoint as well as the latest versions of Windows Server and SQL Server, as Microsoft announces support and compatibility.

**\*Note:** AvePoint does not recommend or support installing DocAve on client operating systems.

### Supported Hardware

AvePoint is committed to maintaining a hardware agnostic platform to ensure that DocAve operates on common Windows file sharing and virtualization platforms. To ensure that DocAve is hardware agnostic, AvePoint tests hardware that is intended to support SharePoint and DocAve infrastructure, storage targets, and hardware-based backup and recovery solutions, as supported by AvePoint's partnerships. AvePoint directly integrates with the following platforms: any Net Share, FTP, Amazon S3, AT&T Synaptic, Box, Caringo Storage, Cleversafe, DELL DX Storage, Dropbox, EMC Atmos, EMC Centera, Google Drive, HDS Hitachi Content Platform, IBM Spectrum Scale Object, IBM Storwize Family, Microsoft Azure Storage, NetApp Data ONTAP, NFS, OneDrive, Rackspace Cloud Files, and TSM.

All other hardware platforms that support UNC addressable storage devices are supported.

**\*Note:** AvePoint has ended the test and development for Caringo Storage and DELL DX Storage in DocAve since DocAve 6 SP7 CU1, as the providers of these two platforms have stopped the platform maintenance.

**\*Note:** Due to changes in the IBM Tivoli Storage Manager API, DocAve 6 Service Pack 6 and later versions require that TSM Client version 7.1.2 is installed on the Control Service and Media Service servers.

**\*Note:** Most of the hardware partnerships referenced in this guide are intended to make use of advanced functionality (such as snapshot mirroring, BLOB snapshots, indexing, long-term storage, WORM storage, etc.), and are not indications that any changes to the product are required for basic support. In most cases, hardware can be supported with no change to the product.

## **Supported Backup and Recovery**

DocAve supports BLOB backup storage according to the list of hardware platforms above. BLOB snapshot function, however, is currently only supported on OEM versions and NetApp hardware.

DocAve supports SQL content and Application database backups via the SharePoint Volume Shadow Copy Service (VSS) on all Windows and SQL server platforms listed above. DocAve also supports snapshot-based SharePoint VSS on all hardware listed above where the hardware partner has certified support with Microsoft.

DocAve supports application and configuration server backups for all the supported software environments listed above. DocAve 6 SP5 or later supports VM backup via Hyper-V/VMWare for the following operating systems: Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Microsoft Hyper-V Server 2012 R2.

## **Notable Environment Exceptions**

The following are notable exceptions to the supported DocAve environments. The following represent environment level support information, not feature level support. Feature level support, specific to each feature, is described throughout this guide where applicable.

File System Migrator partially supports Windows XP SP3; some properties of the file system cannot be retrieved by the API.

## **Configurations**

In order to use DocAve File System Migrator, the DocAve 6 platform must be installed and configured properly on your farm. To review a list of migration source versions and systems supported by DocAve Migrator, refer to Appendix C – Migration Source Environment in the [DocAve 6 Installation Guide](#).

## **Agents**

DocAve Agents are responsible for running DocAve jobs and interacting with the SharePoint object model. DocAve Agents enable DocAve Manager to communicate with the respective servers, allowing for DocAve File System Migrator commands to function properly.

**\*Note:** The use of system resources on a server increases when the installed agent is performing actions. This may affect server performance. However, if the agent installed on a server is not being used, the use of system resources is very low and, therefore, the effect on server performance is negligible.

For instructions on installing the DocAve Platform, DocAve Manager, and DocAve Agents, see the [DocAve 6 Installation Guide](#).

## Required Permissions

To install and use DocAve File System Migrator properly, ensure that the following permissions are met.

### Required Permissions for the Source

Before using File System Migration, ensure the DocAve Agent account in the source has enough permissions.

If there are no strict limitations within your organisation on the permission that can be applied, add the source DocAve Agent Account to the local **Administrators** group. Otherwise, ensure the source Agent account has the permissions listed in [Local System Permissions](#), which are automatically configured by DocAve during installation.

### Required Permissions for the Destination: Migration to SharePoint On-Premises

Before using File System Migrator for SharePoint on-premises, ensure that the Agent account has the following permissions:

1. **Local System Permissions:** The permissions are automatically configured by DocAve during installation. Refer to [Local System Permissions](#) for a list of the permissions automatically configured upon installation.
2. **SharePoint Permissions:** These permissions must be manually configured prior to using DocAve 6 File System Migrator; they are not automatically configured.
  - User is a member of the **Farm Administrators** group. Since Administrator works across farms and on all SharePoint settings and configurations, this account is needed in order to provide the best and most complete quality of service.
  - **Full Control** to all zones of all Web applications via User Policy for Web applications
  - Managed Metadata Service
    - Term Store Administrator
    - Managed Metadata Service Administrator with **Full Control** permission
3. **SQL Permissions:** These permissions must be manually configured prior to using DocAve 6 File System Migrator; they are not automatically configured.
  - Member has a Database Role of **db\_owner** for all of the databases related to SharePoint, including Content Databases, SharePoint Configuration Database, and Central Admin Database.
  - Member has a Database Role of **db\_owner** for the configured Migration Database.

- Member has a Database Role of **db\_owner** for the **master** system database.  
**\*Note:** This permission is only required when the configured Migration Database does not exist and must be created.
- Member has the Server Role of **dbcreator** to SQL Server.  
**\*Note:** If a Web application enables the forms based authentication and uses database as the method of forms based authentication, refer to [Forms Based Authentication Permissions](#) to configure additional settings for the Web application.

## Required Permissions for the Destination: Migration to SharePoint Online

Before using File System Migrator for SharePoint Online, ensure that the following permissions are met:

### Local System Permissions for Agent Account

For the registered SharePoint Online site collections, the Agent account is on the Agent machine that will run migration jobs. This machine must have network connection or have configured Agent Proxy Settings. For more information about Agent Proxy Settings, refer to the [DocAve 6 Control Panel Reference Guide](#).

For the registered SharePoint on-premises site collections, the Agent account is on the Agent machine that will run migration jobs. This machine must be the Central Administration server or one of the Web front-end servers of the farm where the registered site collections reside, or the machine that can communicate with the Central Administration server or one of the Web front-end servers.

The Agent account must have proper Local System permissions. These permissions are automatically configured by DocAve during installation. Refer to [Local System Permissions](#) for a list of the permissions automatically configured upon installation. If there are no strict limitations within your organization on the permissions that can be applied, you can simply add the **DocAve Agent Account** to the local **Administrators** group to apply all of the required permissions.

### Required Permissions for the Account Used to Register Office 365 Objects

The required permissions for the Office 365 account that is used to register SharePoint Online site collections/OneDrive for Business/Office 365 group team sites via **Control Panel**, vary with registration methods and object types. Refer to the tables below for the details.

**Method:** Scan Office 365 Objects via **Manual Object Registration/Dynamic Object Registration**

Object Type	Office 365 Account Role	Other Permissions
SharePoint Online Site Collection	SharePoint Administrator	Managed Metadata Service: Term Store Administrator
OneDrive for Business	Global Administrator	
Office 365 Group Team Site	SharePoint Administrator	

**Method:** Manually Add Office 365 Objects via **Manual Object Registration > Manage Containers**

Object Type	Permissions
SharePoint Online Site Collection	<ul style="list-style-type: none"> <li>• A member of the <b>Site Collection Administrator</b> group.</li> <li>• Managed Metadata Service – Term Store Administrator</li> </ul>
OneDrive for Business	
Office 365 Group Team Site	

Required Permissions for the User Used to Register SharePoint On-Premises Site Collections

The account that is used to register SharePoint on-premises site collections in **Control Panel > Manual Object Registration > Manage Objects** must have the following permissions to each site collection:

- User is a member of the **Site Collection Administrator** group.
- Managed Metadata Service
  - Term Store Administrator
  - Managed Metadata Service Administrator with **Full Control** permission

The account that is used to register the SharePoint on-premises site collections in **Control Panel > Manual Object Registration > Scan** must have the following permissions:

- **Full Control** to all zones of all Web applications via User Policy for Web Applications.
- Member has a Database Role of **db\_owner** for all of the database related to SharePoint, including Content Databases, SharePoint Configuration Database, and Central Admin Database.
- User is a member of the **Site Collection Administrator** group.
- Managed Metadata Service
  - Term Store Administrator
  - Managed Metadata Service Administrator with **Full Control** permission

## Local System Permissions

The following Local System Permissions are automatically configured during DocAve 6 installation:

- User is a member of the following local groups:
  - IIS WPG (for IIS 6.0) or IIS IUSRS (for IIS 7.0)
  - Performance Monitor Users
  - DocAve Users (the group is created by DocAve automatically; it has the following permissions):
    - Full Control to the Registry of  
*HKEY\_LOCAL\_MACHINE\SOFTWARE\AvePoint\DocAve6*
    - Full Control to the Registry of  
*HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\EventLog*
    - Full Control to the Communication Certificate
    - Permission of **Log on as a batch job** (it can be found within **Control Panel > Administrative Tools > Local Security Policy > Security Settings > Local Policies > User Rights Assignment**)
    - Full Control to DocAve Agent installation directory

## Forms Based Authentication Permissions

If a Web application enables the forms based authentication and uses database as the method of forms based authentication, ensure at least one of the following conditions is in place:

- The Agent account has a Database Role of **db\_owner** to this database.
- Specify a user in the **connectionString** node in this Web application's **web.config** profile that has the access to this database. For details, refer to the instructions below.
  - i. Navigate to **Start > Administrative Tools > Server Manager > Roles > Web Server (IIS) > Internet Information Services (IIS) Manager**, find the desired Web application in the **Sites** list.
  - ii. Right-click the desired Web application and select **Explore**.
  - iii. Find the **web.config** file in the pop-up window.
  - iv. Open the **web.config** file with Notepad.

- v. Find the **connectionString** node and specify a user that has access to the database that stores FBA security information.

## File System Server Requirements

To successfully migrate all properties of Microsoft Office documents and/or Adobe Acrobat documents on a file system server, make sure the server has the Microsoft Office application and/or Adobe Reader installed.

## Migration Speed Considerations

To estimate how long your migration plans will take, in order to better inform stakeholders, the following key factors should be taken into consideration prior to running your migration plans.

- Network bandwidth between the file system server and the SharePoint environment
- SQL I/O and memory
- Memory on Web front-end servers
- Memory on the server hosting the DocAve Media service
- Number of CPUs on Web front-end servers
- Source environment deployment
  - Number of objects in source
    - Divide database and folder structures into small data sets before running the migration. Consider a granular migration approach.
  - Size of objects in source
    - A single 1GB file will migrate far quicker than a million files which have a sum of 1GB.
  - Complexity of folders, and sites
    - Divide database and folder structures into small data sets before running the migration. Consider a granular migration approach.
  - Whether DocAve has to create site collections during migration
    - Use folders to break up large document libraries or data subsets to manage library size; consider utilizing filtering to migrate a subset of the data at a time.
  - Whether securities are included in the plan (including mappings)
    - Permissions can be configured to be migrated in the migration plans.

- Whether metadata is included in the filter result in the plan

## Health Analyzer

AvePoint recommends using Health Analyzer to check the prerequisites you need to correctly use DocAve File System Migration.

**\*Note:** Only the users in the DocAve **Administrators** group can use Health Analyzer.

**\*Note:** When creating Health Analyzer profiles, DocAve File System Migration recommends creating two different profiles to scan the source Agent and the destination Agent separately.

After selecting File System as the module, all of the scan rules are selected by default, including the rules for the source environment and the rules for the destination environment. When the Health Analyzer job is finished, you can view the Health Analyzer results. If the scan rule is for the destination environment, but it is applied on the source environment, ignore the error or warning, and vice versa.

For more information about Health Analyzer, refer to [DocAve 6 Installation Guide](#).

# Getting Started

Refer to the sections below for important information on getting started with File System Migration.

## Launching DocAve File System Migration

To launch File System Migration and access its functionality, follow the instructions below:

1. Log into DocAve. If you are already in the software, click the **DocAve** tab. The **DocAve** tab displays all product suites on the left side of the window.
2. Click **Migration** to view all of the Migration modules.
3. Click **File System Migration** to launch that module.

**\*Note:** If desired, access the **License Details** information for Migrator products from the **Migration** landing page.

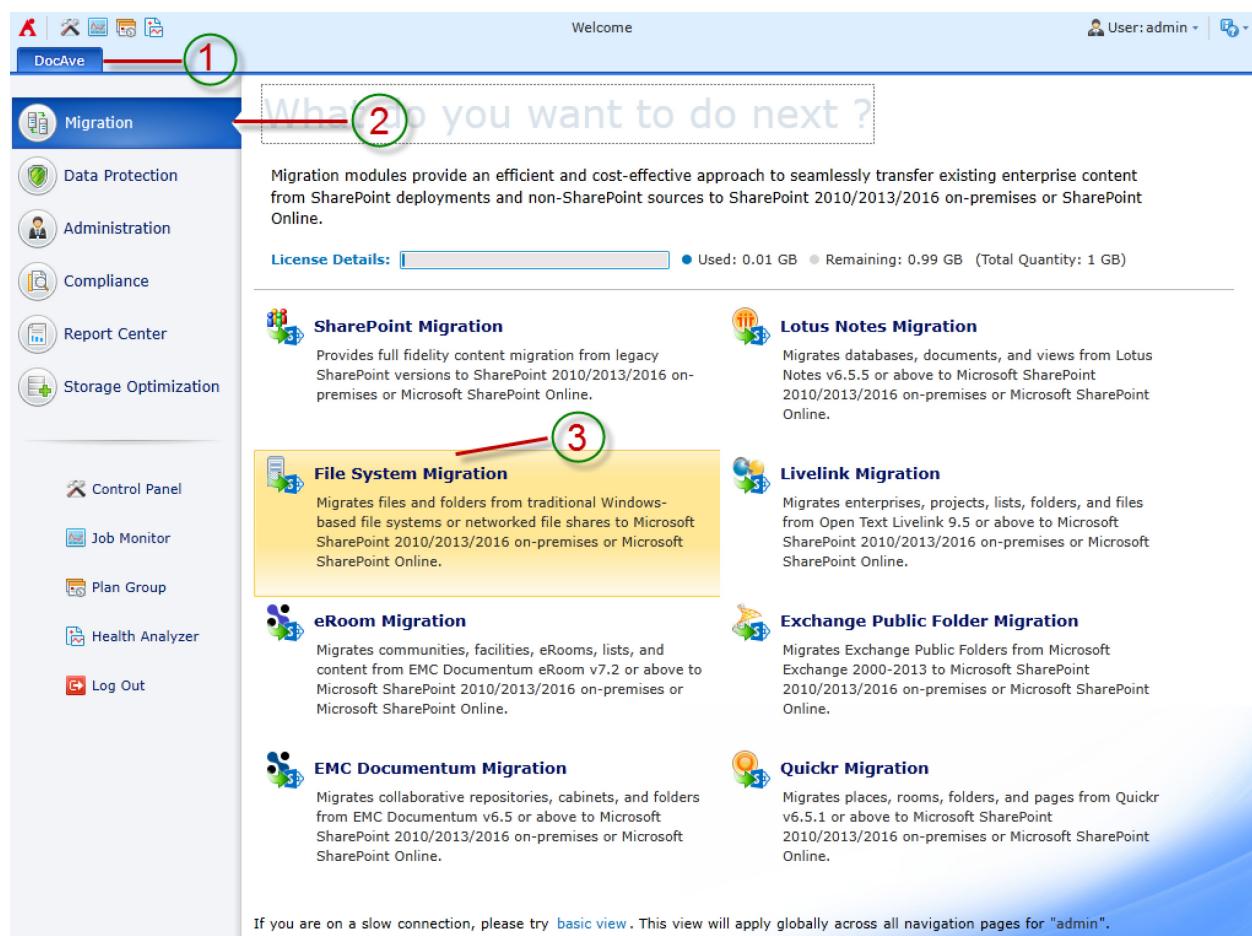
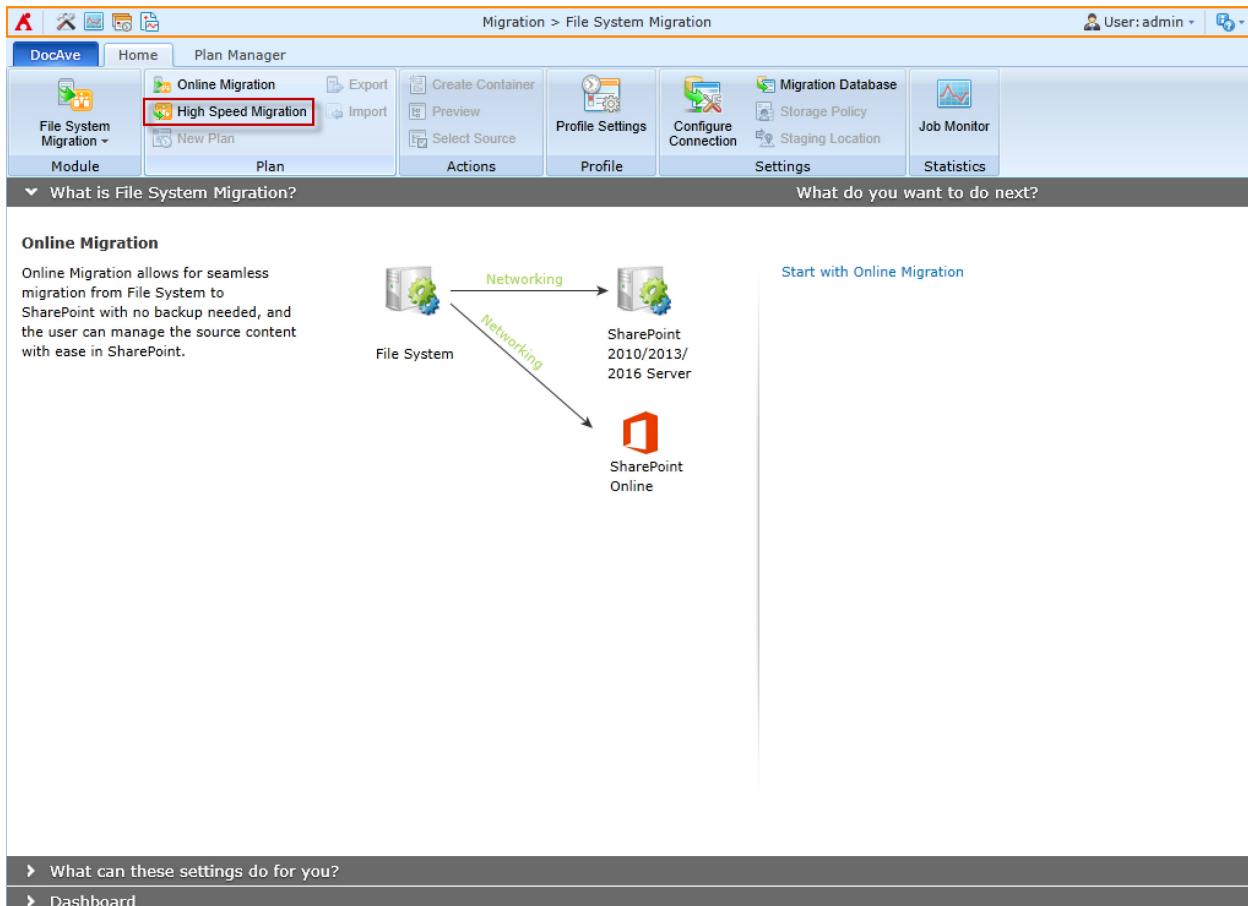


Figure 1: DocAve module launch window.

## Launching File System High Speed Migration

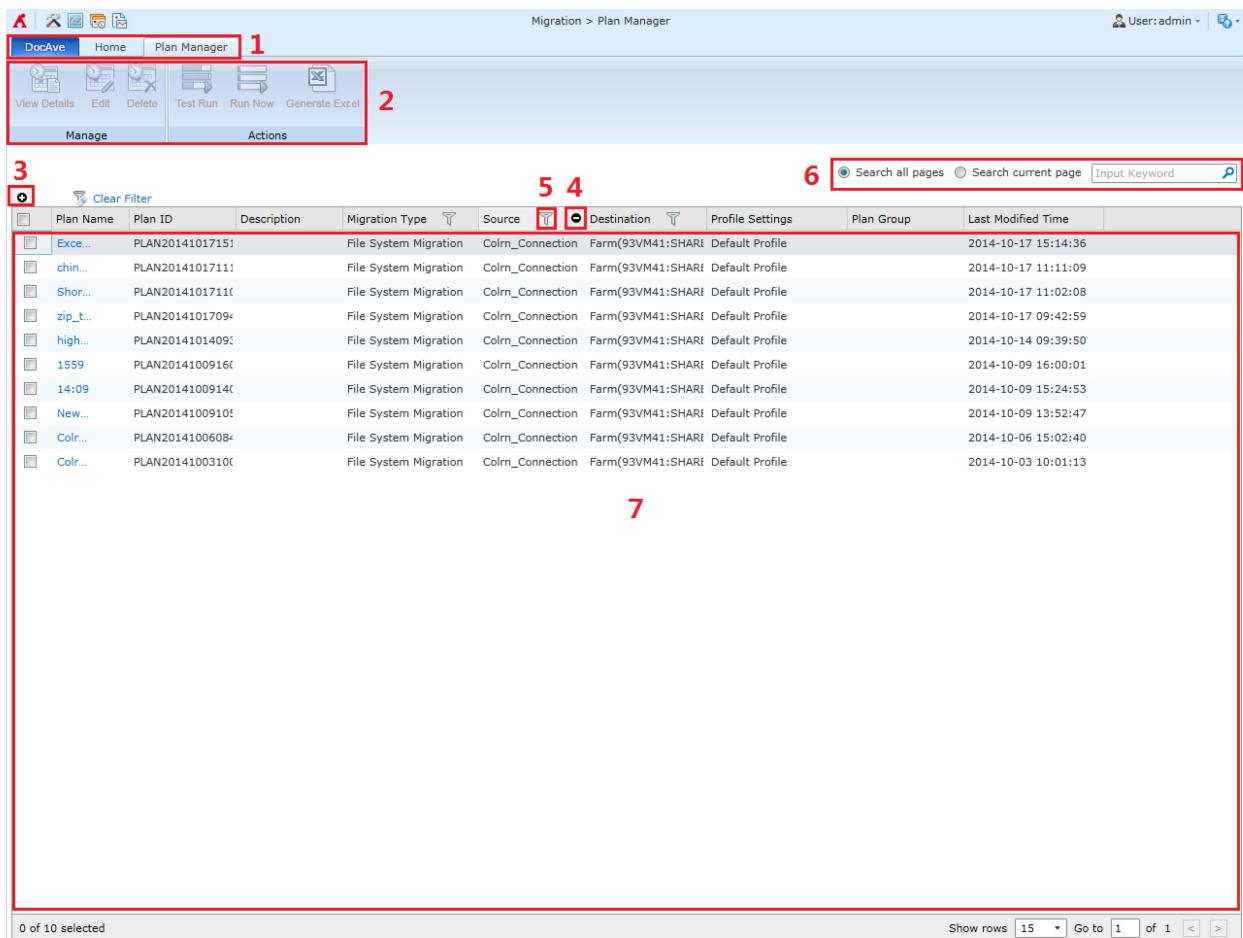
To launch File System High Speed Migration and access its functionality, click **High Speed Migration** in the **Plan** group on the ribbon of the File System Migration module.



**Figure 2: Accessing File System High Speed Migration interface.**

## Navigating DocAve

DocAve mimics the look and feel of many Windows products, making for an intuitive and familiar working environment. While there are many windows, pop-up displays, and messages within DocAve products, they share similar features and are navigated in the same ways. Below is a sample window in DocAve. It features a familiar, dynamic ribbon, and a searchable, content list view.



**Figure 3: Navigating DocAve.**

1. Ribbon Tabs – Allows users to navigate to the DocAve Welcome page and within the active module.
2. Ribbon Panes – Allows users to access the functionality of the active DocAve module.
3. Manage columns (⊕) – Allows users to manage which columns are displayed in the list. Click the manage columns (⊕) button, and then select the checkbox next to the column name in the drop-down list.
4. Hide the column (⊖) – Allows users to hide the selected column.
5. Filter the column ( FILTER ) – Allows users to filter the information in the List View. Click the filter the column ( FILTER ) button next to the column and then select the checkbox next to the column name.
6. Search – Allows users to search the List View pane for a keyword or phrase. You can select **Search all pages** or **Search current page** to define the search scope.

**\*Note:** The search function is not case sensitive.

7. Management Pane – Displays the actionable content of the DocAve module.

# About Online Migrations

Online migrations include file system migration and file system high speed migration.

## File System Online Migration

An Online Migration job migrates content, configurations, securities, and users from a source file system to a destination SharePoint environment when a network between the source and destination is available.

## File System High Speed Online Migration

A File System High Speed Online Migration job migrates content, configurations, securities, and users from a source file system to SharePoint Online with high efficiency when a network between the source and destination is available.

# Online Migration Overview

To perform Online Migration jobs, the following steps must be performed in this order. Click the link to jump to the corresponding section.

## 1. [Pre-migration Configurations](#)

- [Configuring Migration Databases](#) (Optional)
- [Configuring File System Connections](#)
- [Configuring Azure Locations](#) (only for High Speed Migration)
- [Configuring Filter Policies](#) (Optional)
- [Configuring Mapping Settings](#) (Optional)
- [Configuring Dynamic Rules](#) (Optional)

## 2. [Setting Up a File System Migration Profile](#)

- a. [Migration Options](#)
- b. [Mapping Options](#)
- c. [Advanced Options](#)
- d. [Managing Sub-profiles](#)

## 3. [Performing a File System Migration](#)

- a. [Selecting the Source and Destination Nodes](#)
  - [Creating Containers](#)
- b. Select either of the following methods to perform an online migration:
  - [Configuring the Run Now Interface](#)
  - [Configuring the Save As New Plan Interface](#)

# Pre-migration Configurations

Configure the following settings before performing File System Migration. Click the link to jump to the corresponding section.

- [Configuring Migration Databases](#) (Optional)
- [Configuring File System Connections](#)
- [Configuring Azure Locations](#) (only for High Speed Migration)
- [Configuring Filter Policies](#) (Optional)
- [Configuring Mapping Settings](#) (Optional)
- [Configuring Dynamic Rules](#) (Optional)

## Configuring Migration Databases

Configuring a migration database is not mandatory for File System Migrators unless you want to store detailed job information, such as: the status and type of the job, the user who runs the job, the start and end time of the job, plan information, agent information, etc. For detailed information on the Migration database schema, refer to [Appendix A: File System Migration Database Information](#).

**\*Note:** The version of SQL Server required to create a migration database must be SQL Server 2005 SP1 or higher.

1. On the **Home** tab, in the **Settings** group, click **Migration Database**. The **Migration Database** page appears.
2. Click the down arrow () button to the right of a farm or My Registered Sites, and select **Configure** from the drop-down menu to configure a migration database for the corresponding farm or My Registered Sites. The **Migration Database > Configure** page appears.
3. Configure the following settings for the database that will store migration job data:
  - a. **Configure Migration Database** – Specify a migration database. Enter a new **Database Server** and a **Database Name** in the corresponding fields.
  - b. **Authentication** – Select **the** authentication mode for the migration database.
    - **Windows Authentication** (recommended) – Select this mode to verify the user's identity by Windows.
      - By default, the **Specify a Window account** checkbox is deselected and DocAve will create a new migration database or access the

existing migration database using the destination DocAve Agent account.

- To access the database server with a specified Windows account, select the **Specify a Windows account** checkbox and select a managed account profile from the **Managed Account Profile** drop-down list, or click **New Managed Account Profile** to create a new managed account profile in Control Panel. Then, click **Validation Test** to validate the account. For more information, refer to the [DocAve 6 Control Panel Reference Guide](#).

- **SQL Authentication** – Select this mode to verify the user's identity by SQL Server. Enter the user's account and password in the **Account** and **Password** fields. You can also validate the SQL database account by clicking **Validation Test**.

**\*Note:** The specified account for creating or accessing the migration database must have a server role of **db\_creator** for the SQL server where you want to create the migration database and have a database role of **db\_owner** for the newly created/existing migration database.

- c. **Failover Database Server** (optional) – Specify a failover database server. In the event that the specified migration database collapses, the data stored in the migration database can **be** transferred to this standby database.

Alternatively, you can specify a Migration Database in the **Advanced** settings by entering a connection string instead of configuring the settings in Step 3. Click **Advanced**; the **Connection String** section appears. Select the **Edit connection string directly** checkbox to activate this feature, and then enter the connection string according to the example listed in the left pane. For more information about how to configure the connection string, refer to the **ConnectionString** property in **SQL Server Books Online** or **SQL Server Tutorials** by navigating to **Start > Microsoft SQL Server** (with the version you are using) > **Documentation and Tutorials**.

4. Click **Save** to finish and save the configuration, or click **Cancel** to return to the **Migration Database** page without saving any configurations.

## Configuring File System Connections

A file system connection connects a DocAve Agent to your file system server. In order to work properly, the DocAve Agent must be able to connect to the file system server that contains the content you want to migrate to SharePoint. Created connections are displayed on the source pane, showing the content for the file system migration job.

## Managing File System Connections

The **File System Connection** interface displays any file system connections that you have previously created.

In this interface, you can change the number of file system connections displayed per page and the order in which they are displayed. To change the number of file system connections displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the file system connections, click on a column heading such as **Name, Agent** and **Last Modified Time**.

Perform the following actions in the **File System Connection** interface:

- Click **Create** on the ribbon to create a new file system connection. For details on creating a new file system connection, see [Creating and Editing File System Connections](#).
- Click **View Details** on the ribbon and you will see the previously configured settings for this file system connection. Here you can also click **Edit** on the ribbon to make changes to the file system connection's settings. You will be brought to the **Edit File System Connection** page where you can change the settings of this file system connection.
- Click **Edit** on the ribbon to change the configurations for this file system connection. For details on editing configurations for a file system connection, see [Creating and Editing File System Connections](#).
- Click **Delete** on the ribbon. A confirmation window appears. Click **OK** to delete the selected file system connections, or click **Cancel** to return to the file system connection interface without deleting the selected file system connections.

## Creating and Editing File System Connections

To create a new file system connection, click **Create** on the ribbon. To modify a previously configured file system connection, select the file system connection, and then click **Edit** on the ribbon.

In the **Create File System Connection** or **Edit File System Connection** interface, configure the following settings:

1. **File System Connection Name** – Enter a **Name** for the file system connection. Then enter an optional **Description** for this file system connection for future reference.
2. **Connection** – Configure the following settings to connect the file system server to the DocAve Agent.
  - a. **Agent** – Select an Agent where you wish the file system server to connect from the drop-down menu.

- b. **UNC path** – Enter the UNC Path in the following format:  
\\admin-PC\c\$\data or \\admin-PC\shared folder
  - c. **Managed Account Profile** – Select a managed account profile in the drop-down list or create a new managed account profile.  
**\*Note:** Make sure the account has at least the **Read** permission to the UNC path configured above.
    - o The account must have the **Write** permission to the UNC path when the **Configure the metadata file myself** option is selected in the **Metadata Source** section.
    - o The account must have the **Modify** permission to the UNC path when one or both of the following settings are configured:
      - The **Use High Performance Conversion to speed up your migration** option is selected in the **High Performance Conversion** section.
      - The **Move to the destination** option is selected in the **Source File Management** section.
- d. Click **Validation Test** to verify whether the connection is available.
3. Click **Save** to save the configurations and return to the **File System Connection** interface, or click **Cancel** to return to the **File System Connection** interface without saving any changes.

## Configuring Azure Locations

A Microsoft Azure location is used to stage migration data for importing to SharePoint Online and OneDrive for Business. A High Speed Online Migration uses a Microsoft Azure location during migration. A High Speed Offline Migration uses a Microsoft Azure location when importing data.

To access Azure Location settings, click **Azure Location** in the **Settings** group on the ribbon; the **Microsoft Azure Location** interface appears.

### Managing Azure Locations

Perform the following actions in the **Microsoft Azure Location** interface:

- **Create** – Click **Create** on the ribbon to create a new Microsoft Azure location. For details on creating a new Microsoft Azure location, refer to [Creating and Editing Azure Locations](#).

- **View Details** – Click **View Details** on the ribbon to view the previously configured settings for the Microsoft Azure location. Here you can also click **Edit** on the ribbon to make changes to the Microsoft Azure location's settings. You will be redirected to the **Edit Microsoft Azure Location** page where you can change the settings of this Microsoft Azure location.
- **Edit** – Click **Edit** on the ribbon to change the configurations for this Microsoft Azure location. For details on editing configurations for a Microsoft Azure location, refer to [Creating and Editing Azure Locations](#).
- **Delete** – Click **Delete** on the ribbon. A confirmation window appears, asking if you want to proceed with the deletion. Click **OK** to delete the selected Microsoft Azure locations, or click **Cancel** to return to the **Microsoft Azure Location** interface without deleting the selected Microsoft Azure locations.

## Creating and Editing Azure Locations

To create a new Azure location, click **Create** on the ribbon. To modify an Azure location, select the Azure location, and then click **Edit** on the ribbon.

In the **Create a New Microsoft Azure Location** page, configure the following settings:

1. **Name and Description** – Enter a name for the Microsoft Azure location, and enter an optional description.
2. **Path** – Configure the following settings to configure a Microsoft Azure location to stage migration data.
  - a. **Blob Service Endpoint URL** – Enter the endpoint URL of the blob service that you want to use in this Microsoft Azure location.
  - b. **Storage Account Name** – Enter the Microsoft Azure storage account name in the text box.
  - c. **Primary Access Key** – Enter the Microsoft Azure primary access key in the text box.
3. Click **Save** to complete the configurations for the Microsoft Azure location.

## Configuring Filter Policies

The Filter Policy allows you to set up filter rules so you can control what objects are migrated to the SharePoint destination. By setting up and saving filter policies, you can apply the same filter policy to different file system migration plans without having to recreate them each time.

To access the **Filter Policy** interface, click **Profile Settings** on the File System Migrator **Home** tab. On the **Profile Settings** page, click **Filter Policy** on the ribbon.

The **Filter Policy** interface displays any filter policies that you have previously created in the main display pane.

In this interface, you can change the number of filter policies displayed per page and the order in which they are displayed. To change the number of filter policies displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the filter policies, click on a column heading such as **Filter Policy Name**, and **Description**.

Perform the following actions in the **Filter Policy** interface:

- Click **Create** on the ribbon to create a new filter policy. For detailed on creating a new filter policy, see [Creating and Editing Filter Policies](#).

- Click **Edit** on the ribbon to change the configurations for the selected filter policy. For details on editing configurations for filter policies, see [Creating and Editing Filter Policies](#).
- Click **View** on the ribbon to view the configurations of the selected filter policy. To make changes to this filter policy, click **Edit** on the ribbon of the **View Details of Filter Policy** interface, and then you are brought to the **Edit Filter Policy** interface to edit the configurations of this filter policy. For details on editing configurations for filter policy, see [Creating and Editing Filter Policies](#).
- Click **Delete** on the ribbon. A confirmation window appears, confirming that you want to proceed with the deletion. Click **OK** to delete the selected filter policies, or click **Cancel** to return to the filter policy interface without deleting the selected filter policies.

## Creating and Editing Filter Policies

To create a new filter policy, click **Create** on the ribbon. To modify a previously configured filter policy, select the filter policy, and then click **Edit** on the ribbon.

In the **Create Filter Policy** or **Edit Filter Policy** interface, configure the following settings:

1. **Name** – Enter the name for the filter policy that you are creating, or rename the selected filter policy that you are editing.
2. **Description** (optional) – Enter a description for this filter policy.
3. **Filter Rule** – A filter rule allows you to filter the files or folders that you want to migrate by setting up a set of filter criteria. Follow the steps below to set up your own filter rules:
  - a. Select **Folder** or **File** as the filter level.
  - b. Click **Add a Filter Level Group**.
  - c. In the filter rule configuration area, configure the rule, condition, and value. For details, refer to [Filter Policy Examples](#).
  - d. Repeat the steps above to add more filter rules.
  - e. If you set multiple filter rules for the same filter level, select the logic option for these rules. By default, the logic is set to be **And**. You can change the logic to **Or** by selecting it from the drop-down list.
    - **And** – The data that meets all of the criteria will be filtered to be included.
    - **Or** – The data that meets any one of the criteria will be filtered to be included.

- f. If a filter level has multiple filter rules, you can also change the order of these rules. Select a number from the **Order** drop-down list.
4. **Basic Filter Condition** – View the logical relationship of the filter rules in this area. For example, if the logical relationship is ((1 And 2) Or 3), the data that meets both filter rule 1 and filter rule 2, or that meets the filter rule 3, will be included.
5. Click **Save** to save the configurations and return to the **Filter Policy** interface, or click **Cancel** to return to the **Filter Policy** interface without saving any changes.

## Filter Policy Examples

The following tables provide detailed information on the components and usage of File System Migrator filter policies.

**\*Note:** All of the text boxes are not case sensitive, and do not support wildcards.

### Folder Level

Refer to the table below for the filter policy examples on the **Folder** filter level.

Rule	Condition	Value	Example
Name	Contains	abc	The folder whose name contains <i>abc</i> will be included in the filter result.  For example, <i>abcdef</i> or <i>abc</i> .
	Does Not Contain	abc	The folder whose name does not contain <i>abc</i> will be included in the filter result.  For example, <i>123</i> or <i>bc</i> .
	Equals	<i>type</i>	The folder whose name is <i>type</i> will be included in the filter result.
	Does Not Equal	<i>type</i>	The folder whose name is not <i>type</i> will be included in the filter result.
	Matches Regular Expression	<i>ab\$</i>	The folder whose name ends with <i>ab</i> will be included in the filter result.  For example, <i>aab</i> or <i>bab</i> .

<b>Rule</b>	<b>Condition</b>	<b>Value</b>	<b>Example</b>
Created Time	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The folder that was created before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The folder that was created after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	Within	<i>3 Days</i>	The folder that was created within <i>3 days</i> will be included in the filter result.
	Older Than	<i>3 Days</i>	The folder whose created time is older than <i>3 days</i> will be included in the filter result.
Modified Time	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The folder that was last modified before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The folder that was last modified after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	Within	<i>3 Days</i>	The folder that was last modified within <i>3 days</i> will be included in the filter result.
	Older Than	<i>3 Days</i>	The folder whose last modified time is older than <i>3 days</i> will be included in the filter result.
Last Accessed Time	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The folder that was last accessed before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.

Rule	Condition	Value	Example
	After	2015-01-01 06:00 at Central Time (US & Canada)	The folder that was last accessed after 2015-01-01 06:00 at Central Time (US & Canada) will be included in the filter result.
	Within	3 Days	The folder that was last accessed within 3 days will be included in the filter result.
	Older Than	3 Days	The folder whose last accessed time is older than 3 days will be included in the filter result.

## File Level

Refer to the table below for the filter policy examples on the **File** filter level.

Rule	Condition	Value	Example
Name	Contains (wildcards are unsupported)	abc	The file whose name contains abc will be included in the filter result.  For example, abcdef.docx or abc.xlsx.
	Does Not Contain (wildcards are unsupported)	abc	The file whose name does not contain abc will be included in the filter result.  For example, 123.png or bc.docx.
	Equals	type	The file whose name is type will be included in the filter result.
	Does Not Equal	type	The file whose name is not type will be included in the filter result.
	Matches Regular Expression	ab\$	The file whose name ends with ab will be included in the filter result.

Rule	Condition	Value	Example
			For example, <i>aab.docx</i> or <i>bab.xlsx</i> .
Type	Contains	<i>doc</i>	The file whose extension name contains <i>doc</i> will be included in the filter result.  For example, <i>abc.doc</i> or <i>abcd.docx</i> .
	Does Not Contain	<i>docx</i>	The file whose extension name does not contain <i>docx</i> will be included in the filter result.  For example, <i>abc.gif</i> or <i>abcd.doc</i> .
	Equals	<i>docx</i>	The file whose extension name is <i>docx</i> will be included in the filter result.  For example, <i>abc.docx</i> .
	Does Not Equal	<i>docx</i>	The file whose extension name is not <i>docx</i> will be included in the filter result.  For example, <i>abc.doc</i> .
	Matches Regular Expression	<i>x\$</i>	The file whose extension name ends with <i>x</i> will be included in the filter result.  For example, <i>abc.docx</i> or <i>abc.xlsx</i> .
Size	$\geq$	<i>10 KB</i>	The file whose size is not smaller than <i>10 KB</i> will be included in the filter result.  For example: A file whose size is <i>15 KB</i> .

Rule	Condition	Value	Example
	$\leq$	10 KB	The file whose size is not larger than 10 KB will be included in the filter result.  For example: A file whose size is 5 KB.
Metadata: Text  (Enter the metadata name in the text box next to the rule.)	Contains	apple	The file that has this specified metadata and the specified metadata value contains <i>apple</i> , will be included in the filter result.
	Does Not Contain	apple	The file that has this specified metadata and the specified metadata value does not contain <i>apple</i> , will be included in the filter result.
	Equals	apple	The file that has this specified metadata and the specified metadata value is <i>apple</i> , will be included in the filter result.
	Does Not Equal	apple	The file that has this specified metadata and the specified metadata value is not <i>apple</i> , will be included in the filter result.
	Matches Regular Expression	le\$	The file that has this specified metadata and the specified metadata value ends with <i>le</i> .  For example, <i>apple</i> or <i>Google</i> .
Metadata: Number  (Enter the metadata name in the text box next to the rule.)	$\geq$	10	The file that has the specified metadata and the specified metadata value is larger than 10 or equals to 10, will be included in the filter result.
	$\leq$	10	The file that has the specified metadata and the specified

Rule	Condition	Value	Example
	=		metadata value is smaller than <i>10</i> or equals to <i>10</i> , will be included in the filter result.
	=	<i>10</i>	The file that has the specified metadata and the specified metadata value equals to <i>10</i> , will be included in the filter result.
Metadata: Yes/No  (Enter the metadata name in the text box next to the rule.)	Is Exactly  Yes/No	Yes	The file that has the specified metadata and the specified metadata value is exactly <i>Yes</i> , will be included in the filter result.
Metadata: Date and Time  (Enter the metadata name in the text box next to the rule.)	Before	<i>2015-01-01 09:00 at Pacific Time (US &amp; Canada)</i>	The file that has the specified metadata and the specified metadata value is before <i>2015-01-01 09:00 at Pacific Time (US &amp; Canada)</i> , will be included in the filter result.
	After	<i>2015-01-01 09:00 at Pacific Time (US &amp; Canada)</i>	The file that has the specified metadata and this specified metadata value is after <i>2015-01-01 09:00 at Pacific Time (US &amp; Canada)</i> , will be included in the filter result.
	Within	<i>3 Weeks</i>	The file that has the specified metadata and the specified metadata value is within <i>3 Weeks</i> , will be included in the filter result.
	Older Than	<i>3 Weeks</i>	The file that has the specified metadata and the specified metadata value is older than <i>3</i>

Rule	Condition	Value	Example
			<i>Weeks</i> , will be included in the filter result.
Created Time	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The file that was created before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The file that was created after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	Within	<i>3 Days</i>	The file that was created within <i>3 days</i> will be included in the filter result.
	Older Than	<i>3 Days</i>	The file whose created time is older than <i>3 days</i> will be included in the filter result.
Modified Time	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The file that was last modified before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The file that was last modified after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	Within	<i>3 Days</i>	The file that was last modified within <i>3 days</i> will be included in the filter result.
	Older Than	<i>3 Days</i>	The file whose last modified time is older than <i>3 days</i> will be included in the filter result.

Rule	Condition	Value	Example
Last Accessed Time	Before	2015-01-01 06:00 at Central Time (US & Canada)	The file that was last accessed before 2015-01-01 06:00 at Central Time (US & Canada) will be included in the filter result.
	After	2015-01-01 06:00 at Central Time (US & Canada)	The file that was last accessed after 2015-01-01 06:00 at Central Time (US & Canada) will be included in the filter result.
	Within	3 Days	The file that was last accessed within 3 days will be included in the filter result.
	Older Than	3 Days	The file whose last accessed time is older than 3 days will be included in the filter result.
PDF: Application	Contains	abc	The PDF whose Application property value contains abc will be included in the filter result.  For example, abc or bbc.
	Does Not Contain	abc	The PDF whose Application property value does not contain abc will be included in the filter result.
	Equals	abc	The PDF whose Application property value is abc will be included in the filter result.
	Does Not Equal	abc	The PDF whose Application property value is not abc will be included in the filter result.
	Matches Regular Expression	bc\$	The PDF whose Application property value ends with bc will be included in the filter result.

Rule	Condition	Value	Example
			For example, <i>abc</i> or <i>bbc</i> .
PDF: Author	Contains	<i>AvePoint</i>	The PDF whose author contains <i>AvePoint</i> will be included in the filter result.  For example, <i>AvePoint.com</i> .
	Does Not Contain	<i>AvePoint</i>	The PDF whose author does not contain <i>AvePoint</i> will be included in the filter result.  For example, <i>DocAve</i> .
	Equals	<i>AvePoint</i>	The PDF whose author is <i>AvePoint</i> will be included in the filter result.
	Does Not Equal	<i>AvePoint</i>	The PDF whose author is not <i>AvePoint</i> will be included in the filter result.
	Matches Regular Expression	<i>Marketing</i>	The PDF whose author name ends with <i>Marketing</i> will be included in the filter result.  For example, <i>AvePoint US Marketing</i> or <i>AvePoint CN Marketing</i> .
PDF: Date Created	Before	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The PDF that was created before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	<i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i>	The PDF that was created after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.

Rule	Condition	Value	Example
	Within	3 Days	The PDF that was created within <i>3 days</i> will be included in the filter result.
	Older Than	3 Days	The PDF whose created time is older than <i>3 days</i> will be included in the filter result.
PDF: Date Modified	Before	2015-01-01 06:00 at Central Time (US & Canada)	The PDF that was last modified before <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	After	2015-01-01 06:00 at Central Time (US & Canada)	The PDF that was last modified after <i>2015-01-01 06:00 at Central Time (US &amp; Canada)</i> will be included in the filter result.
	Within	3 Days	The PDF that was last modified within <i>3 days</i> will be included in the filter result.
	Older Than	3 Days	The PDF whose last modified time is older than <i>3 days</i> will be included in the filter result.
	Contains	AvePoint	The PDF whose keywords contain <i>AvePoint</i> will be included in the filter result.
PDF: Keywords	Does Not Contain	AvePoint	The PDF whose keywords do not contain <i>AvePoint</i> will be included in the filter result.
	Equals	AvePoint	The PDF whose keyword is <i>AvePoint</i> will be included in the filter result.

Rule	Condition	Value	Example
	Does Not Equal	AvePoint	The PDF whose keyword is not AvePoint will be included in the filter result.
	Matches Regular Expression	Migration\$	<p>The PDF whose keywords end with <i>Migration</i> will be included in the filter result.</p> <p>For example, <i>File System Migration</i> or <i>SharePoint Migration</i>.</p>
PDF: PDF Producer	Contains	Adobe	<p>The PDF whose producer contains <i>Adobe</i> will be included in the filter result.</p> <p>For example, The PDF whose producer is <i>Adobe Library</i> is filtered to be included.</p>
	Does Not Contain	Adobe	<p>The PDF whose producer does not contain <i>Adobe</i> will be included in the filter result.</p> <p>For example, The PDF whose producer is <i>HT</i> is filtered to be included.</p>
	Equals	Adobe	The PDF whose producer is <i>Adobe</i> will be included in the filter result.
	Does Not Equal	Adobe	The PDF whose producer is not <i>Adobe</i> will be included in the filter result.
	Matches Regular Expression	2016\$	<p>The PDF whose producer name ends with <i>2016</i> will be included in the filter result.</p> <p>For example, <i>Microsoft® Word 2016</i> or <i>Microsoft® Excel® 2016</i>.</p>

Rule	Condition	Value	Example
PDF: PDF Version	>=	3.5	The PDF whose version is larger than 3.5 or equals to 3.5 will be included in the filter result.
	<=	3.5	The PDF whose version is smaller than 3.5 or equals to 3.5 will be included in the filter result.
	=	3.5	The PDF whose version equals to 3.5 will be included in the filter result.
PDF: PDF Web View	Is Exactly	Yes	The PDF whose web view is exactly Yes will be included in the filter result.
PDF: Subject	Contains	<i>Migration</i>	The PDF whose subject contains <i>Migration</i> will be included in the filter result.  For example, <i>Migration Plan</i> or <i>File System Migration</i> .
	Does Not Contain	<i>Migration</i>	The PDF whose subject does not contain <i>Migration</i> will be included in the filter result.
	Equals	<i>Migration</i>	The PDF whose subject is <i>Migration</i> will be included in the filter result.
	Does Not Equal	<i>Migration</i>	The PDF whose subject is not <i>Migration</i> will be included in the filter result.
	Matches Regular Expression	<i>Migration\$</i>	The PDF whose subject ends with <i>Migration</i> will be included in the filter result.  For example, <i>File System Migration</i> or <i>SharePoint Migration</i> .

Rule	Condition	Value	Example
PDF: Title	Contains	<i>Migration</i>	The PDF whose title contains <i>Migration</i> will be included in the filter result.  For example, <i>Migration Plan</i> or <i>File System Migration</i> .
	Does Not Contain	<i>Migration</i>	The PDF whose title does not contain <i>Migration</i> will be included in the filter result.
	Equals	<i>Migration</i>	The PDF whose title is <i>Migration</i> will be included in the filter result.
	Does Not Equal	<i>Migration</i>	The PDF whose title is not <i>Migration</i> will be included in the filter result.
	Matches Regular Expression	<i>Migration\$</i>	The PDF whose title ends with <i>Migration</i> will be included in the filter result.  For example, <i>File System Migration</i> or <i>SharePoint Migration</i> .
Compliance Guardian: Tag  (Enter the name of a tag that was added by Compliance Guardian. This rule only supports the Text tag type.)	Contains	<i>AvePoint</i>	The file that has the specified tag and the corresponding tag value contains <i>AvePoint</i> , will be included in the filter result.  For example, <i>AvePoint Testing</i> or <i>Added by AvePoint</i> .
	Does Not Contain	<i>AvePoint</i>	The file that has the specified tag and the corresponding tag value does not contain <i>AvePoint</i> , will be included in the filter result.
	Equals	<i>AvePoint</i>	The file that has the specified tag and the corresponding tag

Rule	Condition	Value	Example
			value is <i>AvePoint</i> , will be included in the filter result.
	Does Not Equal	<i>AvePoint</i>	The file that has the specified tag and the corresponding tag value is not <i>AvePoint</i> , will be included in the filter result.
	Matches Regular Expression	<i>AvePoint\$</i>	The file that has the specified tag and the corresponding tag value ends with <i>AvePoint</i> , will be included in the filter result.  For example, <i>Added by AvePoint</i> or <i>Updated by AvePoint</i> .

## Configuring Mapping Settings

Before performing a file system migration job, you may want to define optional Domain Mapping, User Mapping, Group Mapping, Permission Mapping, and Dynamic Mapping settings. Default mapping settings are provided in the event that you do not want to customize the mappings.

Refer to the following sections to decide whether to configure the mapping settings, and learn how to configure the mapping settings.

### Domain Mapping

If there are users with the same name but with different domains in the source and destination respectively, you can map a source domain name to a SharePoint domain name in the destination using domain mapping. During a migration, File System Migrator will change the source domain name to your specified destination domain name in the destination node. For example, the source user **summer\user1** can be mapped to SharePoint domain user **may\user1** through domain mapping. However, to guarantee successful mapping, the source Agent must be installed in the source domain **summer**.

To set up a domain mapping, complete the following steps:

1. To access Domain Mapping, click **Profile Settings** on the ribbon of **Home** tab. The **Profile Settings** tab appears.

2. Click **Mappings** on the ribbon, and then select **Domain Mapping** from the drop-down menu. The **Control Panel Mapping Manager** interface appears.
3. Click **Create** on the ribbon to create a new domain mapping rule. For specific instructions on setting up domain mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

## User Mapping

User mapping maps an existing source node user name to an existing SharePoint user name in the destination. During a migration, File System Migrator will replace the source user name with the specified destination user name in the destination node.

1. To access User Mapping, click **Profile Settings** on the ribbon of **Home** tab. The **Profile Settings** tab appears.
2. Click **Mappings** on the ribbon, and then select **User Mapping** from the drop-down menu. The **Control Panel Mapping Manager** interface appears.
3. Click **Create** on the ribbon to create a new user mapping rule. For specific instructions on setting up user mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** If you configure user mapping to map a **Modified by** user to a destination SharePoint user, make sure that you enter the user's display name in the **Source Username** column's text box.

**\*Note:** If SharePoint uses Active Directory Federation Services (ADFS) to authenticate users, you need to configure User Mapping, even if the source node user and the SharePoint user are in the same domain.

## Group Mapping

Use group mapping to map an existing source group name to a SharePoint group. During a migration, File System Migrator will replace the source group name with your specified destination group name in the destination node.

1. To access Group Mapping, click **Profile Settings** on the ribbon of **Home** tab. The **Profile Settings** tab appears.
2. Click **Mappings** on the ribbon, and then select **Group Mapping** from the drop-down menu. The **Control Panel Mapping Manager** interface appears.
3. Click **Create** on the ribbon to create a new group mapping rule. For specific instructions on setting up group mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** When the destination environment is SharePoint Online, the destination group name must be in the format of **O365AD:group name**.

## Permission Mapping

File System Migrator allows you to map permissions in the source to SharePoint permissions in the destination. During the migration, File System Migrator will replace the source permission with SharePoint permission levels in the Default Permission Mapping rule or your specified permission levels in the destination node.

**\*Note:** If you have configured both user mapping and permission mapping in the Mapping Options profile with **Merge** as the **Container level conflict resolution** and **New Version** as the **Content level conflict resolution**, the source user's mapping permissions in SharePoint will be merged with the mapped destination user's permissions.

**\*Note:** If you configure the permission mapping profile in the **Details of permission entry mode** and a user in file system has multiple detailed file system permissions mapped to SharePoint, the user mapped to SharePoint will only be granted the higher SharePoint permissions. For example, if a user has **Read Attributes** and **Write Attributes** permissions in the file system (the **Read Attributes** permission in file system is mapped to the **Read** permission in SharePoint; the **Write Attributes** permission in file system is mapped to the **Contribute** permission in SharePoint), the user mapped to the SharePoint destination will have the **Contribute** permission only.

1. To access **Permission Mapping**, click **Profile Settings** on the ribbon of **Home** tab. The **Profile Settings** tab appears.
2. Click **Mappings** on the ribbon, and then select **Permission Mapping** from the drop-down menu. The **Permission Mapping** interface appears.

### Managing Permission Mappings

The **Permission Mapping** interface displays all previously configured permission mappings.

In this interface, you can change the number of permission mappings displayed per page and the order in which they are displayed. To change the number of permission mappings displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the permission mappings, click on a column heading such as **Permission Mapping Name**, and **Description**.

You may perform the following actions to a permission mapping:

- Click **Create** on the ribbon to create a new permission mapping rule. For detailed on creating a new permission mapping, see [Creating and Editing Permission Mappings](#).
- Click **View Details** on the ribbon and you will see the previously configured settings for this permission mapping. Here you can also click **Edit** on the ribbon to make changes to the permission mapping's settings. You will be brought to

the **Edit Permission Mapping** page where you can change this permission mapping.

- Click **Edit** on the ribbon to change the configuration of this permission mapping. For details on editing permission mapping, see [Creating and Editing Permission Mappings](#).
- Click **Delete** on the ribbon. A confirmation window appears, confirming that you want to proceed with the deletion. Click **OK** to delete the selected permission mappings, or click **Cancel** to return to the **Permission Mapping** interface without deleting the selected permission mappings.

### Creating and Editing Permission Mappings

To create a new permission mapping, click **Create** on the ribbon. To edit a previously configured permission mapping, select the permission mapping and then click **Edit** on the ribbon.

In the **Create or Edit Permission Mapping** interface, configure the following settings:

1. **Permission Mapping Name** – Enter a **Permission mapping name** for the permission mapping that you are about to create or edit. Then enter an optional **Description** for this permission mapping for future reference.
2. **Permission Mapping** – Allows you to set up the mapping of file system permissions to SharePoint permissions. It provides you two modes of the permission mapping. The **Permission entry mode** enables you to configure the mappings of five file system permission levels to SharePoint Permission Levels. The **Details of permission entry mode** enables you to configure the detailed permission mappings from file system to SharePoint Permission Levels. To map the file system permission to SharePoint, you can choose the default SharePoint Permission Levels, or previously created SharePoint Permission Levels, or you can directly create a new SharePoint Permission Level by clicking **New SharePoint Permission Level** from the drop-down menu.

For more information on creating a new SharePoint Permission Level, refer to [Creating and Editing SharePoint Permission Levels](#).

3. Click **Save** to save the configurations and return to the **Permission Mapping** interface, or click **Cancel** to return to **Permission Mapping** interface without saving any changes.

### SharePoint Permission Levels

You can create a new SharePoint permission level, view details, edit, or delete a previously configured SharePoint permission level.

To access the **Manage SharePoint Permission Level** interface, click **Profile Settings** on the **Home** tab > **Mappings** > **Permission Mapping** > **Manage SharePoint Permission Level**. The **Manage SharePoint Permission Level** interface appears, where you will see a list of provided or previously configured SharePoint permission levels.

In this interface, you can change the number of SharePoint Permission Levels displayed per page and the order in which they are displayed. To change the number of SharePoint Permission Levels displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the SharePoint Permission Levels, click on a column heading such as **SharePoint Permission Level Name**, and **Description**.

Perform the following actions in the Manage SharePoint Permission Level page.

- Click **Create** on the ribbon to create a new SharePoint Permission Level. For detailed instructions on creating a new SharePoint Permission Level, see [Creating and Editing SharePoint Permission Levels](#).
- Click **View Details** on the ribbon and you will see the previously configured settings for this SharePoint Permission Level. Here you can also click **Edit** on the ribbon to make changes to the SharePoint Permission Level's settings. You will be brought to the Edit SharePoint Permission Level page where you can change its settings.
- Click **Edit** on the ribbon to change the configurations for this SharePoint Permission Level. Note that the pre-defined SharePoint Permission levels including **Contribute**, **Design**, **Edit**, **Full Control**, **Read**, and **View Only**, are not editable. For details on editing configurations for a SharePoint Permission Level, see [Creating and Editing SharePoint Permission Levels](#).
- Click **Delete** on the ribbon. A confirmation window appears, confirming that you want to proceed with the deletion. Click **OK** to delete the selected SharePoint Permission Levels, or click **Cancel** to return to the Manage SharePoint Permission Level interface without deleting the selected SharePoint Permission Levels. Note that the pre-defined SharePoint Permission levels including **Contribute**, **Design**, **Edit**, **Full Control**, **Read**, and **View Only** cannot be deleted.

### Creating and Editing SharePoint Permission Levels

To create a new SharePoint permission level, click **Create** on the ribbon. To modify a previously configured customized SharePoint permission level, select the SharePoint Permission Level, and then click **Edit** on the ribbon.

In the **Create SharePoint Permission Level** or **Edit SharePoint Permission Level** interface, configure the following settings:

1. **Name and Description** – Enter a **Name** for this permission level that you are about to create or edit. Then enter an optional **Description** for future references.
2. **Permissions** – Choose which permissions to include in this permission level. You can select specified permissions of List Permissions, Site Permissions, and Personal Permissions by selecting the checkbox before a specified permission. Select the **Select All** checkbox to select or clear all permissions.

3. Click **Save** to save the configurations and return to the **Manage SharePoint Permission Level** interface, or click **Cancel** to return to the **Manage SharePoint Permission Level** interface without saving any changes.

## Configuring Dynamic Rules

Dynamic rules map file properties to SharePoint metadata using DLL files customized in C#. If you have used a Dynamic Rule in a profile and the Property Mapping settings you configured are conflicting with the specified Dynamic Rule, then the Dynamic Rule will take precedence and disable the corresponding property mapping settings. If you selected the **Configure the metadata file myself** option or **Use existing metadata file** option in plan settings, the dynamic rules you configured will not take effect.

**\*Note:** You must configure dynamic rules to map the **Date Created** property, the **Date Modified** property, the **Last Saved by** property, or the **Owner** property from the file system to SharePoint.

## Managing Dynamic Rules

To access Dynamic Rule, click **Profile Settings** on the ribbon of **Home** tab. The **Profile Settings** tab appears. Click **Dynamic Rule** on the ribbon. In the **Dynamic Rule** interface, you will see a list of previously configured dynamic rules. In this interface, you can change the number of dynamic rules displayed per page and the order in which they are displayed. To change the number of dynamic rules displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the dynamic rules, click on a column heading such as **Name**, **Description**, **DLL File Name**, and **Last Modified Time**.

You may perform the following actions to a Dynamic Rule:

- Click **Create** on the ribbon to create a dynamic rule. For detailed information on creating a new dynamic rule, see [Creating and Editing Dynamic Rule](#).
- Click **View Details** on the ribbon and you will see the previously configured settings for this dynamic rule. Here you can also click **Edit** on the ribbon to make changes to the dynamic rule's settings. You will be brought to the **Edit Dynamic Mapping** page where you can change this dynamic rule.
- Click **Edit** on the ribbon to change the configuration of this dynamic rule. For details on editing dynamic rule, see [Creating and Editing Dynamic Rule](#).
- Click **Delete** on the ribbon. A confirmation window appears, confirming that you want to proceed with the deletion. Click **OK** to delete the selected dynamic rules, or click **Cancel** to return to the dynamic rule without deleting the selected dynamic rules.

## Creating and Editing Dynamic Rules

To create a new dynamic rule, click **Create** on the ribbon. To edit a previously configured dynamic rule, select the dynamic rule and then click **Edit** on the ribbon. In the **Create Dynamic Rule** interface or **Edit Dynamic Rule** interface, configure the following settings:

1. **Name and Description** – Enter a **Dynamic Rule Name** for the dynamic rule that you are about to create or edit. Then enter an optional description for this dynamic rule for future reference.
2. **Dynamic Rule** – Browse a DLL file customized in C# from the local path.
3. Use the DLL file to configure your own mapping. Click **Browse**, select the specified DLL file, and then click **Open**.
4. Click **Save** to save the configuration and return to the **Dynamic Rule** interface. Click **Cancel** to return to the **Dynamic Rule** interface without saving any configuration or changes.

# Setting Up a File System Migration Profile

The File System Migration profile is required to perform a migration job; it allows you to specify and define numerous settings for the Migration jobs including Migration Options, Filter Options, Mapping Options, and Advanced Options. File System Migrator provides you a default main profile with the basic and recommended settings configured.

While it is theoretically possible to run an Online Migration job using the default migration profile without configuring the settings described in the sections below, it is **strongly** recommended that you configure these settings to ensure appropriate content management during migration.

Follow the instructions below to create an Online Migration Profile:

1. From the **Home** tab, in the **Profile** group, click **Profile Settings**. The **Profile Settings** tab appears.
2. From the **Profile Settings** tab, under the **Profile/Sub-profile** group, click **New**.
3. Enter a profile name in the pop-up window and click **Save**.
4. Select the **Migration Options** from the left-hand pane. Select a previously configured **Migration Options Sub-Profile** from the drop-down menu. For details about this section, refer to [Migration Options](#).
5. Select the **Filter Options** from the left-hand pane and select a previously configured Filter Policy from the drop-down menu. Or click **New Filter Policy** from the drop-down menu to create a new filter policy. For details on creating a filter policy, refer to [Creating and Editing Filter Policies](#).
6. Select the **Mapping Options** from the left-hand pane. Select a previously configured **Mapping Options Sub-Profile** from the drop-down menu. For details about this section, refer to [Mapping Options](#).
7. Select the **Advanced Options** from the left-hand pane and configure the **Character Length Settings** and the **Illegal Character Replacement Settings**. For details about this section, refer to [Advanced Options](#).
8. Click **Save** to save the profile. Alternatively, click **Save As** and enter a profile name to save it as another profile. Select **Save and replace the existing main profile** to replace the original profile. Otherwise, it is saved without removing the original profile.

## Migration Options

Migration Options allow you to configure what securities can be migrated and to choose whether to keep the source folder structure. Follow the instructions below to set up a Migration Options Sub-Profile:

1. From the **Home** tab, in the **Profile** group, click **Profile Settings**. The **Profile Settings** tab appears.
2. Click **Migration Options** on the left-hand pane, and from the **Profile Settings** tab, under the **Sub-profile** group, click **Edit Sub-profile** to make the **Migration Options** field active.
3. From the **Profile Settings** tab, under the **Profile/Sub-profile** group, click **New**.
4. Enter a sub-profile name in the pop-up window and click **Save**.
5. Configure **Folder Structure Management**, which allows you to choose whether or not to collapse folder structure of the migrated content.
  - **Collapse all the folder structure** – Migrates all the files within the source structured folders to the same destination location by breaking the structures. Deselect the **Create top level folder on destination** checkbox as it is selected by default, and then select the **Collapse all the folder structure** checkbox. You can choose whether or not to record the source path of the folder or file by adding a column in the destination. Select the **Add a column to keep the source path** checkbox, and use the default provided column name **DocAve Source Path** or rename a new column name.  
Note that if you migrate more than 2000 items at one time to a destination, SharePoint performance might be affected.
  - **Create top level folder on destination** – Creates the top level folders of file system source in SharePoint after migration. By default, the **Create top level folder on destination** checkbox is selected. Before you select the **Create top level folder on destination** checkbox, you must deselect the **Collapse all the folder structure checkbox** at first. If you leave both of the two options deselected, the source content will be migrated to SharePoint without the top level folders, but preserving the source folder structure under the top level folder.
6. **Security Options** – Choose whether to migrate the source users and groups to SharePoint. When you select the **Migrate users and groups** checkbox, you can further choose whether to migrate the security and inheritance of the folder and file from file system to SharePoint.
7. Click **Save** to save the sub-profile. Alternatively, click **Save As** and enter a sub-profile name to save it as another profile. Select **Save and replace the existing sub-profile** to replace the original profile. Otherwise, it is saved without removing the original profile. Click **Discard Changes** to clear all the modifications having been made to the current profile.

## Mapping Options

Mapping Options allow you to set up the Property Mapping, the Content Type Mapping, and the Security Mapping in a centralized interface. The Default Mapping sub-profile contains

Property Mapping and Permission Mapping default configurations. Follow the instructions below to set up a Mapping Options Sub-Profile:

1. From the **Home** tab, in the **Profile** group, click **Profile Settings**. The **Profile Settings** tab appears.
2. Click **Mapping Options** on the left-hand pane, and from the **Profile Settings** tab, under the **Sub-profile** group, click **Edit Sub-profile** to make the **Mapping Options** field active.
3. From the **Profile Settings** tab, under the **Profile/Sub-profile** group, click **New**.
4. Enter a sub-profile name in the pop-up window and click **Save**.
5. Configure the **Property Mapping**. This allows you to modify file system mapping properties to SharePoint metadata. The default mappings are recommended.

**\*Note:** If you want to configure the metadata file yourself and generate the Excel file, you must make sure that the property mapping rules have been properly configured in the selected profile, because the column in the generated Excel file will be migrated to SharePoint as metadata. If there are no property mapping rules configured for the file system property, the column cannot be created in the Excel file; however, if you use existing metadata file when you run the migration job, the property mapping will run according to the existing Excel file, regardless of property mapping settings.

To configure the property mapping rule, follow the steps below:

- a. In the **Property Mapping** viewing pane, enter the keywords into the **Search for File System property** text box to display the File System Properties that contain the keywords you entered. Click  to only display the property mapping rows which contain the keywords you designate. Note that the search function is not case sensitive.
- b. In the Property Mapping list, specify a property mapping row, and click the text box in **SharePoint Property** column. Clear the text box, and then enter the name for the **SharePoint Property** as you wish. Next, click  in each row of **Column Type** to load the drop-down menu, and specify the appropriate column type for the corresponding property mapping. If the column type does not match, the value will fail to be mapped.

**\*Note:** The Lookup column type requires you to configure the column settings. You are required to enter the list/library name which you want to get information from, and then enter a name for this Lookup column that you are creating. Thus, you will be able to get the information from the list/library through this Lookup column. You can specify

whether to allow multiple values, and designate the separator. The Managed Metadata column type requires you to specify the term set path, and choose whether to allow multiple values in this column. Follow the example in the **Term Set Path** text box:

**System** stands for the group name; semicolons (;) are the separator; **Keywords** refers to the Term Set name.

6. Configure the **Content Type Mapping** (only for File System Online Migration), which allows you to match the content types of folders or files in the source to SharePoint content types.

- **File Level** – Designate a specific content type for the file. Refer to the instruction below:

- i. Click **Add a Custom Metadata** and then enter the wildcard character and extension name (such as \*.txt, doc.\*; \*.\*; the character is not case sensitive) or file name with extension name (for example, file1.docx) into the text box.
- ii. Select a proper content type from the drop-down menu of **Content Type** column, or enter a content type that has existed in SharePoint. The content types you can select from the drop-down menu include **Document, Form, Wiki Page, Picture, Office Data Connection File, Universal Data Connection File, and Report**.

You are able to delete previously created metadata mappings through clicking **Delete the Selected Custom Metadata(s)**.

- **Folder Level** – Designate a specific content type for the folder.

- i. Click **Add a Custom Metadata** and then enter the keywords of the folders' name into the text box (such as \*tem, \*, and tem\*).
- ii. Select a proper content type from the drop-down menu of **Content Type** column, or enter a content type that has existed in SharePoint. The Content Types you can select from the drop-down menu are **Folder** and **Summary Task**.

You are able to delete previously created metadata mappings through clicking **Delete the Selected Custom Metadata(s)**.

Make sure that in SharePoint **Library Settings > Advanced Settings**, the **Allow Management of Content Type** value is set to be **Yes**, and that your specified SharePoint content type exists in the library. Otherwise, the source content type will not map.

7. Configure the **Security Mapping**, which allows you to specify the **User Mapping**, **Domain Mapping**, **Group Mapping**, and **Permission Mapping** of File System to SharePoint.

- **User Mapping** (Optional) – Replaces existing user name in the file system with the existing or default user name in SharePoint metadata fields. The migrated objects' corresponding users are also mapped during the migration job. Select a previously created user mapping rule from the drop-down menu, and click **View** to access the detailed information about this selected user mapping. If you want to create a new user mapping rule, click **New User Mapping** in the drop-down menu; this brings you to the **User Mapping Create** page. For specific instructions on setting up user mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **Domain Mapping** (Optional) – Replaces existing domain name in file system with another domain name in SharePoint metadata fields. The domain information of migrated objects' corresponding users and groups is also replaced during the migration job. Select a previously created domain mapping rule from the drop-down menu, and click **View** to access the detailed information about this selected domain mapping. If you want to create a new domain mapping rule, click **New Domain Mapping** in the drop-down menu; this brings you to the **Domain Mapping Create** page. For specific instructions on setting up domain mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **Group Mapping** (Optional) – Replaces groups in file system to the existing groups in SharePoint metadata field. The group information of migrated objects is also replaced during the migration job. Select a previously created group mapping rule from the drop-down menu, and click **View** to access the detailed information about this selected group mapping. If you want to create a new group mapping rule, click **New Group Mapping** in the drop-down menu; this brings you to the **Group Mapping Create** page. For specific instructions on setting up group mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** When the destination environment is SharePoint Online, the destination group name must be in the format of **O365AD:group name**.

**\*Note:** When user mappings, domain mappings, and group mappings are configured in the DocAve Migrator Tool rather than in the **Mapping Options** sub-profile, the mappings configured in DocAve Migrator Tool will take effect once the following conditions are both met:

- The mapping XML files are stored in ...\\AvePoint\\DocAve6\\Agent\\data\\Migrator\\FileMigrator.
- The value of the attribute **ExternalSecurity** in **FileSystemMigrationConfiguration.xml** file is **True**. The

**FileSystemMigrationConfiguration.xml** file resides in ...\\AvePoint\\DocAve6\\Agent\\data\\Migrator\\FileMigrator.

**\*Note:** When user mappings, domain mappings, and group mappings are configured in both the DocAve Migrator Tool (the XML files are stored in ...\\AvePoint\\DocAve6\\Agent\\data\\Migrator\\FileMigrator and the value of the attribute **ExternalSecurity** in **FileSystemMigrationConfiguration.xml** file is **True**) and the **Mapping Options** sub-profile, the mapping configurations will be merged. If there is any conflict between DocAve Migrator Tool mappings and Mapping Options mappings, the configuration in DocAve Migrator Tool will take effect.

**\*Note:** When user mappings, domain mappings, and group mappings are configured in the DocAve Migrator Tool (the XML files are stored in ...\\AvePoint\\DocAve6\\Agent\\data\\Migrator\\FileMigrator and the value of the attribute **ExternalSecurity** in **FileSystemMigrationConfiguration.xml** file is **True**) and mapping files are imported in **Control Panel > Mapping Manager**, the mapping configurations will be merged. If there is any conflict between DocAve Migrator Tool mappings and Mapping Manager mappings, the configuration in DocAve Migrator Tool will take effect.

- **Permission Mapping** (Required) –Maps the file system permissions to the SharePoint permissions. A default permission mapping rule is provided with the name of **Default Permission Mapping**. Select a previously created permission mapping rule from the drop-down menu, and click **View** to access the detailed information about this selected permission mapping. If you want to create a new permission mapping rule, click **New Permission Mapping** in the drop-down menu; this brings you to the Permission Mapping Create page. For specific instructions on setting up permission mapping, refer to [Creating and Editing Permission Mappings](#).
8. Click **Save** to save the sub-profile. Alternatively, click **Save As** and enter a sub-profile name to save it as another profile. Select **Save and replace the existing sub-profile** to replace the original profile. Otherwise, it is saved without removing the original profile. Click **Discard Changes** to clear all the modifications which have been made to the current profile.

## Advanced Options

Configure the Advanced Options to set the thread setting, source data package setting, dynamic rule, character length settings and the illegal character replacement settings. Follow the steps below to set up Advanced Options.

## Thread Setting

Configure the number of threads to simultaneously migrate source content from the Microsoft Azure location to SharePoint Online by entering an integer in the text box. You can define a value between 1 and 256. The default value is **32**.

**\*Note:** This setting is only available for File System High Speed Migration.

## Source Data Package Setting

Configure the maximum number and maximum size of objects that can be stored in a data package. If either the number of objects or the total size of objects exceeds the configured limitation, the source data package will be split. A manifest container will be created in the Azure location for the objects in each split package.

By default, every **100** objects or the objects whose total size is **100 MB** will be split into a package. You can define the maximum object number between 50 and 1000, and define the maximum size of objects between 50 and 1024 MB.

**\*Note:** This setting is only available for File System High Speed Migration.

## Dynamic Rule

Map the source file securities and properties to the destination SharePoint metadata. Select a previously created dynamic rule from the drop-down list. Click **View** next to the drop-down list to view the detailed information of the selected dynamic rule, or click **New Dynamic Rule** from the drop-down list to create a new one. For more information on Dynamic Rule, refer to [Configuring Dynamic Rules](#).

## Character Length Settings

Configure character length limitations for SharePoint URL, file name, and folder name of migrated files and folders in the destination.

- **Maximum length of the folder name** – The default value is 60. For SharePoint 2010 and 2013, you can define a value between 1 and 128. For SharePoint 2016 and SharePoint Online, you can define a value between 1 and 260. If the folder name exceeds the limitation you set, the extra characters will be pruned from the end of the folder name. If folders, after being pruned, share the same name, only one folder will be migrated to the destination. Files in these source folders will all be migrated to this pruned folder. If some of these files share the same name, the files will be migrated by adding a suffix (\_1, \_2, ..., increasing in numerical value).
- **Maximum length of the file name** – The default value is 80. For SharePoint 2010 and 2013, you can define a value between 1 and 128. For SharePoint 2016 and SharePoint Online, you can define a value between 1 and 260. If the character length of the file name consisting of the file name, the period (.), and

extension name (the character length of the file 123456.doc=6+1+3=10) exceeds the limitation you set, the extra characters at the end of the file name are pruned.

- **Maximum length of the SharePoint URL** – The default value is 255. For SharePoint 2010, 2013, and 2016, you can define a value between 1 and 260. For SharePoint Online, you can define a value between 1 and 400. The length of the SharePoint URL is calculated from the first character of the managed path, that is "/". When the folder or file's URL exceeds the limitation, the folder or file will move to upper level folders until the URL character length does not exceed the limitation.

**\*Note:** Source files with SharePoint URLs that exceed 260 characters and folders with SharePoint URLs exceed 248 characters can be migrated to the destination when their URLs in the destination do not exceed the maximum length configured here.

**\*Note:** If you deselect the checkbox next to a setting, then that setting is considered not configured. In that case, once a file name, folder name, or SharePoint URL exceeds the maximum length that SharePoint supports after the migration, the file or folder will fail to migrate to the destination.

## Illegal Character Replacement Settings

Modify or add illegal character mappings to map the illegal characters contained in the file and/or folder names to the proper characters in SharePoint. By default, all illegal characters are replaced with an underscore.

- To modify an illegal character mapping character, double-click the underscore in the **Replace with** column and enter a new valid character.
- To add an illegal character mapping, click **Add an Illegal Character**. Then enter the illegal character in the **Illegal characters in SharePoint** column and the valid character in the **Replace with** column.
- To delete one or more illegal character mappings that you added, select the **Illegal characters in SharePoint** checkbox, select the mappings, and then click **Delete the Selected Illegal Character(s)**. You can also remove the illegal character mapping by clicking the delete () button.

**\*Note:** In SharePoint 2016, ~, &, {, and } are not folder level illegal characters; ~, &, \*, :, {, }, and | are not file level illegal characters any more. These default configured mappings of these characters can be deleted if the destination is a SharePoint 2016 node. In SharePoint Online, # and % are not folder level or file level illegal characters any more. The default configured mappings of # and % can be deleted if the destination is a SharePoint Online node.

**\*Note:** To make sure the deletion works, the **MigrationCommonConfiguration.xml** file must be configured prior to running the migration job. For detailed information, refer to [Configuring the MigrationCommonConfiguration.xml](#).

## Managing Sub-profiles

File System Migrator provides the Migration Options sub-profile to manage the folder structure and the securities for the migrated content, and the Mapping Options sub-profile to specify the Property Mapping, Content Type Mapping, and Security Mapping (the Security Mapping contains the User Mapping, Domain Mapping, Group Mapping, and Permission Mapping). Refer to the information below to manage an existing sub-profile.

### Editing an Existing Sub-profile

To edit an existing sub-profile, complete the following steps:

1. Select an existing sub-profile from the **Sub-Profile** drop-down list.
2. Click **Edit Sub-profile** in the **Sub-profile** group to edit the sub-profile settings.
3. Click **Save** in the **Sub-profile** group to save the sub-profile settings. Alternatively, click **Save As** and enter a profile name to save it as another profile. Select **Save and replace the existing sub-profile** to replace the original profile. Otherwise, it is saved without removing the original profile.

### Deleting an Existing Sub-profile

To delete an existing sub-profile, complete the following steps:

1. Select an existing sub-profile from the **Sub-Profile** drop-down list.
2. Click **Delete** in the **Profile/Sub-profile** group to delete the sub-profile, or directly click **Delete** next to the sub-profile name in the drop-down list. Note that the default sub-profile and the sub-profile used in the main profile cannot be deleted.

### Uploading a Previously Configured Sub-profile

To upload a previously configured sub-profile, complete the following steps:

1. In the **Profile Settings** interface, click **Migration Options** or **Mapping Options** on the left panel.
2. Click **Edit Sub-profile** to make the **Migration Options** field active.
3. Click **Upload** in the **Sub-profile** group.
4. Select a previously created sub-profile and click **Open** to upload it. If a sub-profile having the same name exists in DocAve, you have two options:

- **Upload as a new profile** – Upload the sub-profile and name the uploaded sub-profile by adding a suffix, for example, *subprofile\_1*.
- **Overwrite current profile** – Replace the existing sub-profile. The **Default Mappings** sub-profile and the **Default Migration Options** sub-profile cannot be overwritten.

## Downloading an Existing Sub-profile

To download an existing sub-profile, complete the following steps:

1. In the **Profile Settings** interface, click **Migration Options** or **Mapping Options** on the left-hand panel.
2. Select an existing sub-profile and click **Edit Sub-profile** in the **Sub-profile** group.
3. Click **Download** in the **Sub-profile** group to save the sub-profile to the local disk.

# Performing a File System Migration

A file system migration migrates content, configurations, and securities from a file system server to the SharePoint environment. To start a File System Migration job, click **Online Migration** on the ribbon. This brings you to the **Create a New Plan** interface.

**\*Note:** Do not run more than seven jobs simultaneously. Otherwise, some jobs may fail.

To perform a File System Migration job, complete the following steps:

## Selecting the Source and Destination Nodes

1. In the **Source** pane, click the file system server name to expand the data tree. Select the source files to migrate:
  - a. Find the node whose data you wish to migrate. If working with a large environment, enter the name of the node (for example, folder and file) into the **Input Keyword** text box to search for the desired node. You can only search out the nodes whose name is displayed in the currently expanded tree. The nodes that are not displayed in the expanded tree cannot be searched.
  - b. Select the source node by selecting the corresponding checkbox. Within each folder level, there is a node named **Items**. The prompt next to **Items** displays how many files are contained in the **Items** node. You can click the **Items** node and the **Item Browser** pop-up window appears. Select the files that you wish to migrate by selecting corresponding checkboxes and click **OK**.
2. In the **Destination** pane, click the farm name to expand the data tree. Select the destination node:

**\*Note:** Only SharePoint Online libraries can be selected as the destination for File System High Speed Migration.

  - a. Find the node that you wish to migrate the source data to. If working with a large environment, enter the keyword of the node into the **Input Keyword** text box to search by the desired site URL, site title or library title. You can only search out the nodes whose name is displayed in the currently expanded tree. The nodes that are not displayed in the expanded tree cannot be searched.
  - b. To narrow down the search criteria and display fewer nodes on the tree, right-click the specified node and select **Advanced Search**. In the **Advanced Search** interface, click **Add a Criterion** and configure the following settings:

- i. **Rule** – Select the rule for this search. The following table displays the supported rules for each node that is supported for Advanced Search.

Environment	Node	Rule
SharePoint On-Premises	Farm Level	Web Application: URL
	Web Application Level	Site Collection: Name
		Site Collection: URL
	<b>Sites</b>	Site: Name
		Site: URL
	<b>Lists</b>	List/Library: Name
		List/Library: URL
	<b>Folders</b>	Folder: Name
		Folder: URL
SharePoint Online  (My Registered Sites)	<b>Sites</b>	Site: Name
		Site: URL
	<b>Lists</b>	List/Library: Name
		List/Library: URL
	<b>Folders</b>	Folder: Name
		Folder: URL

- ii. **Condition** – Select the condition for the rule from the drop-down list.
- iii. **Value** – Enter the value for the rule in the text box.
- iv. To add more criteria, click **Add a Criterion**, and repeat steps above. You can change the logical relationships between the criteria by clicking the **And** or **Or**. By default, the logical relationship is set to **And**. **And** means that the child nodes that meet all of the criteria will be included in the result. **Or** means that the child nodes that meet any criterion will be

included in the result. The **Basic Filter Condition** area displays the logic relationships of filter criteria.

- v. Click **Search** to start searching the child nodes.
- c. Select the destination node by selecting corresponding checkbox. You can also create a new container to be the destination node without leaving the current page.

For details on creating a container in SharePoint, refer to [Creating Containers](#).

3. When the job has finished configuring, select one of the following options:
  - Click **Run Now** to perform a migration job immediately. For more information on the **Run Now** interface, refer to [Configuring the Run Now Interface](#).
  - Click **Save As New Plan** to configure more specific settings and then save them as a file system migration plan, which then can be used to perform a file system migration job. For more information on the **Save As New Plan** interface, refer to [Configuring the Save As New Plan Interface](#).

## Creating Containers

Prior to migration, containers should be created in the destination to store the migrated content. The destination container in File System Migration can be a library or folder.

DocAve allows you to create containers in SharePoint without leaving the DocAve interface, providing you the ability to perform migration tasks without using SharePoint to create all of the necessary containers in the destination.

To create a container:

1. Navigate to the **Destination** pane and enter the name of a new container in the available field.
2. Click **Create Container**. The **Create Container** interface appears.

**\*Note:** If creating a folder, no settings need to be configured. Click **Create Container** at the folder level to create a folder immediately.
3. If creating a library, configure the settings described below.
  - **Object Type** – The **Library** option is selected by default. Only a **Library** can be created at the list/library level in File System Migrator.
  - **Category** – Select the category for the new library. The following library types are supported for a File System Migrator destination: **Document Library**, **Form Library**, **Wiki Page Library**, **Picture Library**, **Data Connection Library**, **Report Library**, and **Asset Library**.

- **Document Template** (for Document Library, Form Library) – Select a document template to determine the default for all new files created in this library.

\***Note:** This section is only available for File System Online Migration.

- **Navigation** – Select **Yes** if you want to display the library on the Quick Launch.
- **Document Version History** (for Document Library, Form Library) – Select **Yes** to create a version each time you edit a file in this library.
- **Picture Version History** (for Picture Library only) – Select **Yes** to create a version each time you edit a file in this picture library.
- **Data Connection Version History** (for Data Connection Library only) – Select **Yes** to create a version each time you edit a file in this data connection library.
- **Item Version History** (for Asset Library, Report Library) – Select **Yes** to create a version each time you edit a file in this library.

4. Click **OK** to create the new list or library, or click **Cancel** to close the **Create Container** interface.

## Configuring the Run Now Interface

In the **Run Now** interface, configure the following settings:

1. **Conflict Resolution** – A conflict occurs when an item name in file system is identical to an existing item in SharePoint. At the Container level, the conflict resolutions provided are **Merge** and **Skip**. **Merge** requires you to **Check lower objects for conflicts**, and configure the content level conflict resolution. **Skip** provides the configuration of the content level conflict resolution as optional. Refer to the list below for a more detailed view about the Conflict Resolution.

Conflicting Levels	Resolutions
Container Level Conflict Resolution	Merge (To check lower object is required)
	Skip (To check lower object is optional)
Check lower objects for conflicts.	
Content Level Conflict Resolution	Overwrite
	Skip
	Append
	New version (only for File System Online Migration)

2. **Profile Selection** – Configure the related migration options and mappings for the migration job. Select a previously created migration profile from the drop-down menu. File System Migration provides a default main profile named **Default Profile**.
3. **Destination Agent Group** (only for File System Online Migration) – Select a destination agent group to execute the migration job. An agent group can contain multiple agents for load balancing and better performance.  
**\*Note:** This section only appears when the destination node is in SharePoint on-premises.
4. **High Performance Conversion** (only for File System Online Migration) – Select whether or not to use the High Performance Conversion function.  
**\*Note:** This section only appears when the destination node is in SharePoint on-premises.

- **Use High Performance Conversion to speed up your migration** – If you select this option, File System Migration will move the source data stubs to SharePoint and move the source data BLOB content to the specified logical device of the site or site collection where the destination node resides.

**\*Note:** Only the logical device with the storage type of Net Share is supported.

- **Migrate content only** – If you select both **Use High Performance Conversion to speed up your migration** and **Migrate content only**, the metadata/security information cannot be migrated again because the source data has been moved.

**\*Note:** DocAve recommends using the same physical device (or the same disk) as the source file system and the physical device used by the destination node.

5. **Microsoft Azure Location** (only for File System High Speed Online Migration) – Select a Microsoft Azure location where you want to store the migration data. You can select the **Default Azure Location** or click **New Microsoft Azure Location** to create a new one. For more information, refer to [Creating and Editing Azure Locations](#). Select the **Enable encryption on the migrated data** checkbox to encrypt the data in the migration.

**\*Note:** If you select to use the **Default Azure Location**, the data that is migrated and stored in the Microsoft Azure storage location will be automatically encrypted.

6. **Migration Database** – Choose whether to specify a migration database to store detailed job information in SQL Server for each farm. For detailed information about configuring a Migration Database, refer to [Configuring Migration Databases](#).
7. **Notification** – Select the e-mail **Notification** profile for sending the notification report. For more information on working with notification policies, refer to [DocAve 6 Control Panel Reference Guide](#).
8. **Job Status Option** – Specify whether to take the metadata and/or security exceptions into consideration for the file system migration job status. If only the content metadata or security fails to migrate and you select the **Ignore metadata/security exceptions** checkbox, the migration job status will be marked as **Finished**. Otherwise, the job status will be marked as **Finished with Exception**.

**\*Note:** This section only appears when High Performance Conversion is disabled.

## Configuring the Save As New Plan Interface

In the **Save As New Plan** interface, configure the following settings to build a migration plan:

1. **Plan Name** – Enter a name in the text box for the plan you are about to create. It is optional to enter the description for the plan.
2. **Profile Selection** – Configure the related migration options and mappings for the migration job.

- Select a previously created main profile from the drop-down menu. File system Migration provides you a default main profile named **Default Profile**.
  - Click **New Profile** to create a new profile. The **Profile Settings** interface appears. For detailed instructions on configuring the main profile, refer to [Setting Up a File System Migration Profile](#).
3. **Destination Agent Group** (for File System Online Migration only) – Select a destination agent group to execute the migration job. An agent group can contain multiple agents for load balancing and better performance.
- \***Note:** This section only appears when the destination node is in SharePoint on-premises.
4. **High Performance Conversion** (for File System Online Migration only) – Select whether or not to use the High Performance Conversion function.
- \***Note:** This section only appears when the destination node is in SharePoint on-premises.
- **Use High Performance Conversion to speed up your migration** – If you select this option, File System Migration will move the source data stubs to SharePoint and move the source data BLOB content to the specified logical device of the site or site collection where the destination node resides.
- \***Note:** Only the logical device with the storage type of Net Share is supported.
- **Migrate content only** – If you select both **Use High Performance Conversion to speed up your migration** and **Migrate content only**, the metadata/security information cannot be migrated again because the source data has been moved.
- \***Note:** DocAve recommends using the same physical device (or the same disk) as the source file system and the physical device used by the destination node.
5. **Source File Management** (for File System Online Migration only) – Configure settings for file system content upon migration job completion.
- **Copy to the destination** – Copies the content from the source to the destination. After the job is finished, the content can be accessed from both file system and SharePoint.
  - **Move to the destination** – Moves the content from the source to the destination. After the job is finished, the content in the source has been deleted, and you can only access the content from SharePoint.
- Additionally, you can select the **Leave a shortcut in the source for each file** checkbox. After a migration with the checkbox selected, a shortcut is left in the

source. Users can click the shortcut in the source to access the file and will be brought to SharePoint interface.

- **Move to another location once the job is completed** – Moves the content to another location once the job is complete, and deletes the content from the source. You must enter the **UNC path**, and select a managed account profile from the drop-down list to connect to the specific location where you want to store the content once the job is finished. To check the validation of your path, click **Validation Test**.

Additionally, you can select the **Leave a shortcut in the source for each file** checkbox. After a migration with the checkbox selected, a shortcut is left in the source. Users can click the shortcut in the source to access the file and will be brought to the new location.

**\*Note:** You can also click **New Managed Account Profile** to create a new managed account profile.

**\*Note:** If a folder with the same name already exists in the specified location, the content in the source folder will be merged to the destination folder of the same name. If a file with the same name already exists in the specified location, the file will not be moved to the specified location; it stays in the original source path.

6. **Microsoft Azure Location** (for File System High Speed Online Migration only) – Select a Microsoft Azure location where you want to store the migration data. You can select the **Default Azure Location** or click **New Microsoft Azure Location** to create a new one. For more information, refer to [Creating and Editing Azure Locations](#). Select the **Enable encryption on the migrated data** checkbox to encrypt the data in the migration.

**\*Note:** If you select to use the **Default Azure Location**, the data that is migrated and stored in the Microsoft Azure storage location will be automatically encrypted.

7. **Metadata Source** – Specify the metadata that will be migrated with the content to the destination. You may choose to use the file system metadata, configure your own metadata file yourself, or use the existing metadata file.

- **Use the metadata of the file system** – Uses the source file system metadata information with no need to configure the metadata.
- **Configure the metadata file myself** – Generates a metadata Excel file to customize your own metadata. If you select the **Configure metadata file myself** checkbox, you are required to generate Excel first before you run the migration job. Refer to [Customizing Metadata File](#) for more detailed instructions on configuring the metadata file.

- **Use the existing metadata file** – Uses the former created metadata files that exist in the source. If you select the **Use the existing metadata file** checkbox, make sure that the metadata files exist in the source before you perform the file system migration job. Refer to [Existing Metadata File](#) for more detailed instructions on using the existing metadata file.
8. **Schedule Selection** – In the schedule configuration area, choose one of the following:
- **No Schedule** – Select this option to apply the rules of this plan, and then you must run the job manually.
  - **Configure the schedule myself** – Select this option to configure the specific time you want to collect the data of this profile. The **Schedule Settings** area appears when you select this option.
- Click **Add Schedule**, and then the **Add Schedule** interface appears. For more information on the **Add Schedule** interface, refer to [Configuring the Add Schedule Interface](#).
9. **Notification** – Select the e-mail **Notification** profile for sending the notification report. For more information on working with notification policies, refer to the [DocAve 6 Control Panel Reference Guide](#).
10. **Associated Plan Group** – Select an associated plan group or create a new plan group in the **Associated plan group(s)** drop-down list in order to make the plan run according to the selected plan group settings. For more information on plan groups, refer to the [DocAve 6 Control Panel Reference Guide](#).
11. **Migration Database** – Specify a migration database to store detailed job information in SQL Server for each farm. For detailed information about the Migration Database, refer to the [Configuring Migration Databases](#).
12. When the plan has been configured, select one of the following options:
- Click **Save**, then select **Save** to save the plan you have configured. The **Plan Manager** interface appears. For more information, refer to [Managing Plans](#).
  - Click **Save**, then select **Save and Run Now** to save the plan you have configured. The **Run Now** interface appears. For more information, refer to [Configuring the Run Now Interface](#).

## Configuring the Add Schedule Interface

Click **Add Schedule** and the **Add Schedule** interface appears. Configure the following settings:

1. **Options** – Select a type of migration for this schedule.
  - **Full migration** – Migrates with all content from the source to the destination according to the settings of the profile.

- **Incremental migration** – Migrates the newly created or updated content in the source node since the last migration job.

**\*Note:** If you select the **Incremental migration** option, the **Remigrate the objects whose metadata/securities failed to be migrated in the last migration job** option will appear in the **Conflict Resolution** section after you select **Overwrite**, **Append**, or **New Version** (only for File System Online Migration) as the content level conflict resolution. You can then decide whether or not to re-migrate the objects whose metadata/securities failed to be migrated in the last migration job.

2. **Conflict Resolution** – Specify the conflict resolution action that occurs when the item name in file system conflicts with an existing item in SharePoint. For the Container level, the conflict resolutions provided are **Merge** and **Skip**. **Merge** requires you to check the lower objects, and configure the content level conflict resolution. **Skip** provides the configuration of the content level conflict resolution as optional. For more detailed information of Conflict Resolution, refer to [Appendix C: Conflict Resolution](#).
  3. **Schedule Settings** – Specify the frequency to run this recurring schedule. Enter an integer into the text box, and select **Minute(s)**, **Hour(s)**, **Day(s)**, **Week(s)**, **Month(s)** from the drop-down menu.
  4. **Range of Recurrence** – Specify when to start the job, and the schedule ending.
    - **Start Time** – Select the date and time for applying the rules of this profile and collecting the data. Note that the start time cannot be earlier than the current time.
    - **Schedule ending** – Designate when to stop the scheduled job. Select **No end date** for the setting of this profile to be applied repeatedly until you stop it manually. Select **End after \_\_ occurrence(s)** to have the job stopped after the defined occurrences that you configured in the text box. Select **End by Date + Time** to specify the exact date and time for the data to stop being collected.
  5. **Job Status Option** – Specify whether or not to take the metadata/security exceptions into consideration for the file system migration job status. If the content metadata or security fails to migrate and you select **Ignore metadata/security exceptions** checkbox, the migration job status will be finished. Otherwise, the job status will be **Finished with Exceptions**.
- \*Note:** This section only appears when High Performance Conversion is disabled.
6. Click **Save** to save the configuration of schedule, or click **Cancel** to return to the **Save As New Plan** interface without saving any changes.
  7. Click **Calendar View** to preview the configured schedule in a calendar.

8. You can delete a previously configured schedule by clicking  behind a corresponding schedule.

## Configuring the Run Now Interface

In the **Run Now** interface, configure the settings below:

1. **Options** – Select a type of migration for this migration job.
  - **Full migration** – Migrates with all content from the source to the destination according to the settings of the profile.
  - **Incremental migration** – Migrates the newly created or updated content in the source node since the last migration job.

**\*Note:** If you select the **Incremental migration** option, the **Remigrate the objects whose metadata/securities failed to be migrated in the last migration job** option will appear in the **Conflict Resolution** section after you select **Overwrite**, **Append**, or **New Version** (only for File System Online Migration) as the content level conflict resolution. You can then decide whether or not to re-migrate the objects whose metadata/securities failed to be migrated in the last migration job.
2. **Conflict Resolution** – Specify the conflict resolution action that occurs when the item name in file system conflicts with an existing item in SharePoint. For the Container level, the conflict resolutions provided are **Merge** and **Skip**. **Merge** requires you to check the lower objects, and configure the content level conflict resolution. **Skip** provides the configuration of the content level conflict resolution as optional. For more detailed information of Conflict Resolution, refer to [Appendix C: Conflict Resolution](#).
3. **Job Status Option** – Specify whether or not to take the metadata/security exceptions into consideration for the file system migration job status. If the content metadata or security fails to migrate and you select **Ignore metadata/security exceptions** checkbox, the migration job status will be marked as **Finished**. Otherwise, the job status will be marked as **Finished with Exceptions**.

**\*Note:** For File System Online Migration, this section only appears when High Performance Conversion is disabled.
4. **Click OK** to run the file system migration job. Click **Cancel** to go back to the **Plan Manager** interface.

## Customizing Metadata File

This section is only available when the **Configure the metadata file myself** checkbox is selected. When this option is selected, after the configurations of this plan, you are required to

generate an Excel file before running the migration job. Refer to [Metadata Excel File](#) for more detailed information.

- **Generate only one metadata file** – Generates only one metadata file in the source. This metadata file is stored in the top level folder or the foremost selected folder in the source tree.
  - **Create a new version of the migrated file in the destination** – The **Version Sequence** and **New File Name** columns will be automatically added in the metadata file. If you select the **Collapse all the folder structure** option or **Customize the folder structure of the migrated file in the destination** option, there may be files sharing the same name in the same path. Selecting this option allows you to specify the different versions for these files under the new file name.  
**\*Note:** This option offers a specific solution: if you want to migrate the files with different names in file system as different versions of a specified file to SharePoint destination, select this option, and then customize the values for **Version Sequence** and **New File Name** in the generated Excel.
  - **Customize the folder structure of the migrated file in the destination** – The **Custom Folder** column will be automatically added in the metadata file. Once this column is created, the folder structure of the content in the source will be collapsed. You can customize the file path in the **Custom Folder** column. The folder structure in the destination will be migrated according to the **Custom Folder** column.  
**\*Note:** If you do not select **Generate only one metadata file** checkbox, the metadata files will be generated in each selected folder of the source, and the customized columns will be added to each metadata file.
- **Rename the migrated content in the destination** – Renames the content to be migrated in the generated Excel. This option will automatically add the **New File Name** column in the metadata files.  
**\*Note:** If you select **Generate only one metadata file** and **Rename the migrated content in the destination** at the same time, you can generate only one metadata file in the source with an added column named **New File Name**.
- **Add a new column to the metadata file** – Automatically adds the customized column in the metadata file. Through configuring the column value in the metadata file, you are able to create your desired column for the source content in SharePoint. Click **Add a Column**, and then the configuration field appears. Enter a column name in the **Column Name** column, and select a content type from the drop-down menu of content type column. Repeat the actions to add

more columns. If you want to delete a previously created column, select the checkbox ahead of the column name and then click **Delete the Selected Column(s)**.

## Existing Metadata File

This section is only available only when the **Use the existing metadata file** checkbox is selected. You must make sure that the Excel file has been placed in the source, and the columns you want to use have been added in the Excel file. Refer to [Metadata Excel File](#) for a more detailed instruction.

- **Use only one metadata file** – Uses only one existing metadata file for the migrated content.
  - **Create a new version of the migrated file in the destination** – For this feature to function properly, make sure **Version Sequence** and **New File Name** columns have been added in the metadata file. You may have selected the **Collapse all the folder structure** option, or you may have selected the **Customize the folder structure of the migrated file in the destination** option with the **Custom Folder** column created, which may lead to the fact that multiple files are using the same name in the same path. If there are multiple files sharing the same name in the same path, selecting this option will allow you to create different versions for these files under the new file.

**\*Note:** This option can realize a specific functionality: if you want to migrate the files with different names in file system as the different versions of a specified file to the SharePoint destination, select this option, and then customize the values for File Version and New File Name in the existing metadata file.
  - **Customize the folder structure of the migrated file in the destination** – For this feature to function properly, make sure the **Custom Folder** column has been added in the existing metadata file. Once this column is created, the folder structure of the content in the source will be collapsed. You can customize the file path in the **Custom Folder** column. The folder structure in the destination will be migrated according to the **Custom Folder** column. If there is no value in this column for the corresponding file, the file will be migrated to the root folder of the selected destination node in SharePoint.
- **Rename the migrated content in the destination** – For this option to function properly, make sure the **New File Name** column has been added to the existing metadata file.

## Metadata Excel File

File System Migration allows you to migrate content with customized metadata by using an Excel file. The metadata excel file will be used when you select the **Configure the metadata file myself** or **Use the existing metadata file** option. For more information, refer to [Configuring the Save As New Plan Interface](#). The Excel file must be generated first or already be placed in the source file system before running the migration job.

The columns will be migrated as the property of the items to the destination SharePoint. Read the table and the introduction below for more usage information.

Type	Column_Name:= Type	Example of Content Format
Single line of text	Column_name:=Text	Random Character String, less than 255 characters
Multiple lines of text	Column_name:=Note	Random Character String
Choice_Checkboxes (allow multiple selections)	Column_name:=CheckBoxChoice	Random Character String
Choice_Drop-Down Menu	Column_name:=DropDownChoice	Random Character String
Choice_Radio Buttons	Column_name:=RadioChoice	Random Character String
Number	Column_name:=Number	10
Date and Time_Date Only	Column_name:=DateOnly	12/30/2012
Date and Time_Date & Time	Column_name:=DateAndTime	12/30/2012 5:34:27 AM
Yes/No	Column_name:=Boolean	Yes
Person or Group	Column_name:=User	Domain\User
Managed Metadata	Column_name:=Taxonomy(GroupName;TermSetName;AllowMultiValues;Separator)	11;22;33
Lookup	Column_name:=Lookup(ListName;ColumnName;AllowMultiValues;Separator)	Refer to the note below

Type	Column_Name:= Type	Example of Content Format
Currency	Column_name:=CurrencyNumber	100
Hyperlink or Picture	Column_name:=HyperLinkOrPicture	http://www.avepoint.com

- **Single line of text** – Allows random character string less than 255 characters. If you do not follow the corresponding column type format to customize the specific column, the column values you have added in the metadata file will be migrated to SharePoint in the single line of text.
- **Multiple lines of text** – Allows random character string.
- **Choice\_Checkboxes (allow multiple selections)** – Allows you to specify multiple values in the column cell and these values will be migrated to destination SharePoint as Choices. The format is **aaa;#bbb;#ccc**.
- **Choice\_Drop-Down Menu/Choice\_Radio Buttons** – Migrates the specified values in the column cells as Choices. The format is **aaa**.
- **Number** – The column value can be any number.
- **Date and Time\_Date Only/Date and Time\_Date & Time** – Make sure the value is in the same format as that in SharePoint. The values in **Date and Time\_Data & Time** column, and **Date and Time\_Data Only** column, will be automatically converted into the corresponding time, according to the time zone that the SharePoint Server is using.
- **Yes/No** – If you enter **yes/true** or any character as the column value into this column, after the migration job, in the destination SharePoint the value in the file/folder's **Yes/No** column is **Yes**. If you enter **no/false** into the column or you do not enter any character into the column, in the destination SharePoint the value in the file/folder's **Yes/No** column is **No**. Note that this column is not case-sensitive.
- **Person or Group** – Allows you to assign SharePoint users, SharePoint groups, and domain groups for the file/folder when migrated to SharePoint destination.  
**\*Note:** If you want to enter multiple values, please specify the column header in the format: *Column\_name:=User(true)*. Then, enter multiple values into the column cell, for example **summer\user1;#summer\user2;#summer\user3**.
- **\*Note:** When the destination environment is SharePoint Online, the value of the user must be in the format of **user name@domain.onmicrosoft.com** and the

value of the group must be in the format of **group name** or **O365AD:group name**.

- **Managed Metadata** – The field type is taxonomy which represents fixed character strings. You are allowed to specify four values, respectively the group name, term name, whether to allow multiple values, and the separator you want to use. If there is already a column with the same name but in a different type existing in the destination, the assignment for this column will be invalid; and if there is no column with the same name in the destination, a **Managed Metadata** column will be created. You can enter nested terms in this column such as a<b<c<d, make sure multiple terms are separated by the separator you set up.

**\*Note:** The SharePoint **Enterprise Keywords** column, which is configured as **Column\_name:=Taxonomy(System;Keywords;True;;)** in the metadata file, nested terms are not supported.

- **Lookup** – The field type is lookup which represents fixed character strings. You are able to specify four values. First one is the name of the list or library where it gets information from. The second one is the name of column which it points to. Note that the list or library must exist, the corresponding values of this column it points to must exist, and the second value is case-sensitive. The third one is whether to allow multiple values, and the fourth one is the separator you want to use.
- **Currency** – The value can be any number or the number with the currency unit, such as 100.
- **Hyperlink or Picture** – The value can be any URL or the full URL of pictures.

**\*Note:** In the generated metadata file, by default the **Full Path** column is the first row. If you delete the entire **Full Path** column or clear the values of the specific files in the **Full Path** column, the specific files will not be migrated to the destination. In the following situations, the metadata will not be migrated to the destination:

- If the column value does not match with the column type, the column value will not be migrated to destination.
- If there were a column in the destination with the same name but in different types, the column will not be created.
- If there is no value in an entire column, this column will not be created in the destination.

You can also use the following features by editing the Excel file:

Feature Name (Column Name in Excel)	Format of Value	Example
New File Name	Random Character String	abc.docx
Version Sequence	Positive integer	1
Custom Folder	Random Character String	Folder A
Content Approval	One of the approval status (Approved, Denied, Pending, Draft)	Approved
Content Type:=ContentType	Random Character String	Document

- **New File Name** – Define a new name for the source file when it is migrated to SharePoint.
- **Version Sequence** – When multiple source files have the same file name, the value of Version Sequence determines the migration sequence and file version in the destination. For example, the file name of two files is abc.docx. The values of Version Sequence is defined as **1** and **2**. The file whose Version Sequence value is **1** will be migrated to the destination first and the file version in destination is version **1**. The file whose Version Sequence value is **2** will be migrated to the destination next and the file version in destination will be updated.
- **Custom Folder** – Places the source file in a custom folder after the file is migrated to the destination. The source file will be migrated to a new folder named by the value of Custom Folder. This feature will collapse the source folder structure. You can create folder structure by entering \ between folder names.
- **Content Approval** – Define the approval status for the file when it is migrated to the destination. To use this feature, make sure the **Require content approval for submitted items?** feature is enabled in the destination, and the value of the attribute **LoadModerationStatus** is **true**. If the attribute value is **false**, Content Approval will be migrated to the destination as a Single Line of Text column. The attribute resides in a configuration file. For more information, refer to [Configuring the FileSystemMigrationConfiguration.xml](#).

**\*Note:** This feature is not supported for SharePoint Online.

- **Content Type:=ContentType** – Define a content type for the file. If a content type mapping is also configured for this file in Profile Settings, the content type mapping configured in the metadata file will take effect.

**\*Note:** The content type must exist in the destination node.

## About File System High Speed Offline Migration

File System High Speed Migration includes two types of jobs, Export and Import.

A File System High Speed Migration Export job allows you to export data from the source file system to an export location. After the exported data has been uploaded to the Microsoft Azure location, a File System High Speed Migration Import job allows you to import the data from the Microsoft Azure location to SharePoint Online.

# Offline Migration Overview

To perform High Speed Offline Migration jobs, the following steps must be performed in this order. Click the link to jump to the corresponding section.

1. [Configuring Staging Locations](#)
2. [Configuring Azure Locations](#)
3. [Setting Up a File System Migration Profile](#)
  - a. [Migration Options](#)
  - b. [Mapping Options](#)
  - c. [Advanced Options](#)
  - d. [Managing Sub-profiles](#)
4. [Performing a High Speed Offline Migration](#)
  - a. [Exporting Data](#)
    - i. [Selecting the Source and Destination Nodes](#)
    - ii. [Configuring the Save As New Plan Interface](#)
  - b. [Uploading Exported Data to Microsoft Azure](#)
  - c. [Importing Data](#)
    - i. [Selecting the Source and Destination Nodes](#)
    - ii. [Configuring the Save As New Plan Interface](#)

# Pre-migration Configurations

## Configuring Staging Locations

A staging location is used to stage migration data for import and export.

To access staging location settings, click **Staging Location** in the **Settings** group on the ribbon; the **Staging Location > Export Mode** interface appears.

**\*Note:** The **Staging Location** button is only available after clicking **Export** in the **Plan Management** group on the ribbon.

### Managing Staging Locations

Perform the following actions in the **Staging Location > Export Mode** interface:

- **Create** – Click **Create** on the ribbon to create a new staging location. For details on creating a new staging location, refer to [Creating and Editing Staging Locations](#).
- **View Details** – Click **View Details** on the ribbon to view the previously configured settings for the staging location. Here you can also click **Edit** on the ribbon to make changes to the staging location's settings. You will be redirected to the **Edit Export Location** page where you can change the settings of this staging location.
- **Edit** – Click **Edit** on the ribbon to change settings for this staging location. For details on editing settings for a staging location, refer to [Creating and Editing Staging Locations](#).
- **Delete** – Click **Delete** on the ribbon. A confirmation window appears, asking if you want to proceed with the deletion. Click **OK** to delete the selected staging locations, or click **Cancel** to return to the **Staging Location > Export Mode** interface without deleting the selected staging locations.

## Creating and Editing Staging Locations

To create a new staging location, click **Create** on the ribbon. To modify a staging location, select the staging location, and then click **Edit** on the ribbon.

In the **Create a New Export Location** page, configure the following settings:

1. **Name and Description** – Enter a name for the staging location, and enter an optional description.
2. **Agent and Path** – Configure the following settings to configure a staging location to stage exported data.
  - a. **Agent** – Select the Agent where the location you want to store data resides from the drop-down list.
  - b. **UNC path** – Enter the UNC path in the following format: \\admin-PC\c\$\data or \\admin-PC\shared folder.
  - c. **Managed Account Profile** – Select the managed account profile from the drop-down list or click **New Management Account Profile** to create a new one.
  - d. Click **Validation Test** to test the entered information.
3. Click **Save** to complete the configuration of the staging location.

# Performing a High Speed Offline Migration

## Exporting Data

The following sections describe how to export data to the export location in order to perform a high speed offline migration job.

### Selecting the Source and Destination Nodes

High Speed Migration Export job exports data from file system to an offline storage location.

1. From the **Home** tab of High Speed Migration, in the **Plan Management** group, click **Export**.
2. In the **Source** pane, click the file system server name to expand the data tree. Select the source files to migrate:
  - a. Find the node whose data you want to export. If working with a large environment, enter the name of the node (for example, folder and file) into the **Input Keyword** text box to search for the desired node. You can only search out the nodes whose name is displayed in the currently expanded tree. The nodes that are not displayed in the expanded tree cannot be searched.
  - b. Select the source node by selecting the corresponding checkbox. Within each folder level, there is a node named **Items**. The prompt next to **Items** displays how many files are included in the **Items** node. You can click the **Items** node and the **Item Browser** interface appears. Select the files that you want to export by selecting corresponding checkboxes and click **OK**.
3. In the **Destination** pane, select a configured export location from the drop-down list or click **New Export Location** to create a new one. For details on creating a staging location, refer to [Creating and Editing Staging Locations](#).
4. When finished selecting the nodes, click **Save As New Plan** to save the settings as a new plan, and then the **Save As New Plan** interface appears. For more information, refer to [Configuring the Save As New Plan Interface](#).

### Configuring the Save As New Plan Interface

In the **Save As New Plan** interface, configure the following settings:

1. **Plan Name** – Enter a **Plan Name**, and an optional **Description**.
2. **Profile Selection** – Select a profile from the drop-down menu. You can also click **New Profile** to create a new one.

3. **Data Encryption** – Select the **Enable encryption on the migrated data** checkbox to encrypt the migrated data.

**\*Note:** Encrypting data reduces the migration speed. AvePoint recommends enabling encryption for confidential data.
4. **Metadata Source** – Specify the metadata that will be migrated with the content to the destination. You may choose to use the file system metadata, configure your own metadata file, or use the existing metadata file.
  - **Use the metadata of the file system** – Uses the source file system metadata information with no need to configure the metadata.
  - **Configure the metadata file myself** – Generates a metadata Excel file to customize your own metadata. If you select the **Configure metadata file myself** checkbox, you are required to generate Excel first before you run the migration job. Refer to [Customizing Metadata File](#) for more detailed instructions on configuring the metadata file.
  - **Use the existing metadata file** – Uses the former created metadata files that exist in the source. If you select the **Use the existing metadata file** checkbox, make sure that the metadata files exist in the source before you perform the file system migration job. Refer to [Existing Metadata File](#) for more detailed instructions on using the existing metadata file.
5. **Schedule Selection** – Choose whether or not you want to run this plan at a specified time:
  - Select **No Schedule** to manually execute this plan.
  - Select **Configure the schedule myself** if you want to have the plan executed as scheduled. The **Schedule Settings** section appears under the **Schedule Selection** section.

Click **Add Schedule** and the **Add Schedule** interface appears. For more information, see the [Configuring the Add Schedule Interface](#) section of this guide.
6. **Notification** – Select a notification profile from the drop-down list. Click **View** beside the drop-down list to view details of the notification profile, or click **New Notification Profile**. For information on creating a notification profile, see the [DocAve 6 Control Panel Reference Guide](#).
7. **Associated Plan Group** – Adds the plan to one or more plan groups to manage the plans with common settings. Select plan groups in the drop-down menu, or click **New Plan Group**. For information on creating a plan group, see the [DocAve 6 Control Panel Reference Guide](#).

8. Click **Save**, and then select **Save** to save the export plan. To save the export plan and execute it right away, click **Save**, and then select **Save and Run Now**. The **Run Now** interface appears. For more information, refer to [Configuring the Run Now Interface](#).
9. Click **Cancel** at any time to return to the High Speed Migration module page.

### Configuring the Add Schedule Interface

Click **Add Schedule** and the **Add Schedule** interface appears. Configure the following settings:

1. **Options** – Select a type of migration for the customized schedule.
  - Choose **Full migration** to migrate all contents from the source node to the destination node according to the profile.
  - Choose **Incremental migration** to only migrate the modified content to the destination.

**\*Note:** Make sure that you have run a full migration job.
2. **Schedule Settings** – Specify the frequency to run the recurring schedule. Enter an integer into the text box and select **Minute(s)**, **Hour(s)**, **Day(s)**, **Week(s)** or **Month(s)** from the drop-down list.
3. **Range of Recurrence** – Specify when to start and end the running recurring schedule.
  - a. **Start time** – Set up the time to start the plan and Time Zone can be changed under the Start time. Note that the start time cannot be earlier than the current time.
  - b. **No end date** – Select this option to repeat running the plan until being stopped manually.
  - c. **End after specified occurrence(s)** – Select this option to stop the plan after specified occurrences that you configure in the text box.
  - d. **End by** – Set up the time to end the recurrence of plans.

**\*Note:** Options b, c and d above are radio buttons. You can only select one of these methods to finish this schedule.
4. **Job Status Option** – Specify whether or not to take the metadata/security exceptions into consideration for the file system migration job status. If the content metadata or security fails to migrate and you select the **Ignore metadata/security exceptions** checkbox, the migration job status will be marked as **Finished**. Otherwise, the job status will be marked as **Finished with Exceptions**.
5. Click **Save** to save the configuration of schedule, or click **Cancel** to return to the **Save As New Plan** interface without saving any changes.

6. Click **Calendar View** to preview the configured schedule in a calendar.
7. You can delete a previously configured schedule by clicking  behind a corresponding schedule.

## Configuring the Run Now Interface

In the **Run Now** interface, select a type of migration for this plan: **Full migration** or **Incremental migration**, and then click **OK** to run the migration job of this plan. Click **Cancel** to go back to the **Plan Manager** interface.

## Customizing Metadata File

This section is only available when the **Configure the metadata file myself** checkbox is selected. For detailed information, refer to the [Customizing Metadata File](#) section of this guide.

## Existing Metadata File

This section is only available only when the **Use the existing metadata file** checkbox is selected. For detailed information, refer to the [Existing Metadata File](#) section of this guide.

## Metadata Excel File

File System Migration allows you to migrate content with customized metadata by using an Excel file. The metadata excel file will be used when you select the **Configure the metadata file myself** or **Use the existing metadata file** option. For detailed information, refer to the [Metadata Excel File](#) section of this guide.

## Uploading Exported Data to Microsoft Azure

When you export data using a File System High Speed Migration Export job, an Agent tool will be run to generate a MD5 hash value for each source file, and record the mapping of the MD5 hash value and the file name into a mapping file. Use the Microsoft Azure Import/Export tool to copy the exported data to the hard drives you are going to ship to a Microsoft Azure data center. After the data in hard drives has been uploaded to Microsoft Azure, you can import the data from Microsoft Azure to SharePoint Online using a File System High Speed Migration Import job. When importing the data, a MD5 hash value will be assigned to each file based on the mapping file.

For more information about the Microsoft Azure Import/Export tool, refer to [Azure Import/Export Tool Reference](#). For more information about the Agent tool, refer to the **AgentToolExportMD5** section of the [DocAve 6 Supplementary Tools User Guide](#).

## Importing Data

The following sections describe how to import the exported data to the destination SharePoint Online node.

**\*Note:** Before importing data, make sure the source plain data exported to the export location has been uploaded to the Microsoft Azure, including the folder named in the format of *PlanID-JobID* and the folder named **docavededicated**.

## Selecting the Source and Destination Nodes

High Speed Migration Import job imports data from Microsoft Azure location to SharePoint Online.

1. From the **Home** tab of High Speed Migration, in the **Plan Management** group, click **Import**.
2. In the **Source** pane, follow the steps below to select the source node whose data you want to import.
  - a. On the **Browse** tab, click the Microsoft Azure location where the data you want to import.
  - b. Target the specified High Speed Migration Export job that exports the data you want to import by selecting the Job ID under the corresponding plan.
  - c. Switch to the **Details** tab, the data tree that is selected in the plan will be displayed.
3. In the **Destination** pane, click **My Registered Sites** to expand the data tree.
  - a. Find the node where you want to import the exported data. If working with a large environment, enter the keyword of the node into the **Input Keyword** text box to search for the desired node. You can only search out the nodes whose name is displayed in the currently expanded tree. The nodes which are not displayed in the expanded tree cannot be searched. When entering the keyword, the search result will be displayed with a little time.
  - b. Select the destination node by selecting the corresponding radio button. You can also create a new library or folder by entering the specified name and click **Create Container**. For details on creating containers, refer to [Creating Containers](#).
4. Click **Save As New Plan** to save the settings as a new plan, and then the **Save As New Plan** interface appears. For more information, refer to [Configuring the Save As New Plan Interface](#).

## Creating Containers

Prior to import data, containers should be created in the destination to store data. The destination container in File System Migration can be a library or folder.

DocAve allows you to create containers in SharePoint without leaving the DocAve interface, providing you the ability to perform migration tasks without using SharePoint to create all of the necessary containers in the destination.

To create a container:

1. Navigate to the **Destination** pane and enter the name of a new container in the available field.
2. Click **Create Container**. The **Create Container** interface appears.  
**\*Note:** If creating a folder, no settings need to be configured. Click **Create Container** at the folder level to create a folder immediately.
3. If creating a library, configure the settings described below.
  - **Object Type** – The **Library** option is selected by default. Only a **Library** can be created at the list/library level in File System Migrator.
  - **Category** – Select the category for the new library. The following library types are supported for a File System Migrator destination: **Document Library**, **Form Library**, **Wiki Page Library**, **Picture Library**, **Asset Library**, **Data Connection Library**, and **Report Library**.
  - **Navigation** – Select **Yes** if you want to display the library on the Quick Launch.
  - **Document Version History** (for Document Library, Form Library) – Select **Yes** to create a version each time you edit a file in this library.
  - **Picture Version History** (for Picture Library only) – Select **Yes** to create a version each time you edit a file in this picture library.
  - **Data Connection Version History** (for Data Connection Library only) – Select **Yes** to create a version each time you edit a file in this data connection library.
  - **Item Version History** (for Asset Library, Report Library) – Select **Yes** to create a version each time you edit a file in this library.
4. Click **OK** to create the new list or library, or click **Cancel** to close the **Create Container** interface.

## Configuring the Save As New Plan Interface

In the **Save As New Plan** interface, configure the following settings:

1. **Plan Name** – Enter the new **Plan Name**, and an optional description.
2. **Profile Selection** – Select a profile from the drop-down menu. You can also click **New Profile** to create a new one.

3. **Schedule Selection** – Choose whether or not you want to run this plan at a specified time:
  - Select **No Schedule** to manually execute this plan.
  - Select **Configure the schedule myself** if you want to have the plan executed as scheduled. The **Schedule Settings** section appears under the **Schedule Selection** section.

Click **Add Schedule** and the **Add Schedule** interface appears. For more information, see the [Configuring the Add Schedule Interface](#) section of this guide.
4. **Notification** – Choose the type of notification report and designate which DocAve user will receive the e-mail notification. Select a notification profile from the drop-down list. Click **View** beside the drop-down list to view details of the notification profile, or click **New Notification Profile**. For information on creating a notification profile, see the [DocAve 6 Control Panel Reference Guide](#).
5. **Associated Plan Group** – Adds the plan to one or more plan groups to manage the plans with common settings. Select a plan group ted from the drop-down list, or click **New Plan Group**. For information on creating a plan group, see the [DocAve 6 Control Panel Reference Guide](#).
6. **Migration Database** – Specify a migration database to store detailed job information in SQL Server for each farm. For detailed information about the Migration Database, refer to the [Configuring Migration Databases](#).
7. Click **Save**, and then select **Save** to save the import plan. To save the export plan and execute it right away, click **Save**, and then select **Save and Run Now**. The **Run Now** interface appears. For more information, refer to [Configuring the Run Now Interface](#).
8. Click **Cancel** at any time to return to the High Speed Migration module page.

#### Configuring the Add Schedule Interface

Click **Add Schedule** and the **Add Schedule** interface pops up. Configure the following settings.

1. **Options** – Select a type of migration for this schedule.
  - **Full migration** – Migrates with all content from the source to the destination according to the settings of the profile.
  - **Incremental migration** – Migrates the newly created or updated content in the source node since the last migration job.
2. **Conflict Resolution** – Specify the conflict resolution when the item name in Azure location conflicts with an existing item name in SharePoint Online. For the **Container Level**, the conflict resolutions provided are **Merge** and **Skip**. **Merge** requires you to check lower objects for conflicts, and configure content level conflict resolution. **Skip**

provides the configuration of the **Content Level** resolution optional. For more detailed information of Conflict Resolution, refer to [Appendix C: Conflict Resolution](#).

3. **Schedule Settings** – Specify the frequency to run the recurring schedule. Enter an integer into the text box and select **Minute(s)**, **Hour(s)**, **Day(s)**, **Week(s)** or **Month(s)** from the drop-down list.
4. **Range of Recurrence** – Specify when to start and end the running recurring schedule.
  - a. **Start time** – Set up the time to start the plan and Time Zone can be changed under the Start time. Note that the start time cannot be earlier than the current time.
  - b. **No end date** – Select this option to repeat running the plan until being stopped manually.
  - c. **End after specified occurrence(s)** – Select this option to stop the plan after specified occurrences that you configure in the text box.
  - d. **End by** – Set up the time to end the recurrence of plans.

**\*Note:** Options b, c, and d above are radio buttons. You can only select one of these methods to finish this schedule.

5. **Job Status Option** – Specify whether or not to take the metadata/security exceptions into consideration for the file system migration job status. If the content metadata or security fails to migrate and you select **Ignore metadata/security exceptions** checkbox, the migration job status will be marked as **Finished**. Otherwise, the job status will be marked as **Finished with Exceptions**.
6. Click **Save** to save the configuration of schedule, or click **Cancel** to return to the **Save As New Plan** interface without saving any change.
7. Click **Calendar View** to preview the previously configured schedule in a calendar.
8. You can delete a previously configured schedule by clicking  behind a corresponding schedule.

## Configuring the Run Now Interface

In the **Run Now** interface, configure the settings below:

1. **Conflict Resolution** – Specify the conflict resolution when the item name in Azure location conflicts with an existing item name in SharePoint Online. For the **Container Level**, the conflict resolutions provided are **Merge** and **Skip**. **Merge** requires you to check lower objects for conflicts, and configure content level conflict resolution. **Skip** provides the configuration of the **Content Level** resolution optional. For more detailed information of Conflict Resolution, refer to [Appendix C: Conflict Resolution](#).

2. **Jobs Status Option** – Specify whether or not to take the metadata/security exceptions into consideration for the file system migration job status. If the content metadata or security fails to migrate and you select **Ignore metadata/security exceptions** checkbox, the migration job status will be marked as **Finished**. Otherwise, the job status will be marked as **Finished with Exceptions**.
3. Click **OK** to run the import migration job, or click **Cancel** to return to the **Plan Manager** interface.

# Managing Plans

The Plan Manager interface allows users to view, edit, test run, and run plans. To access the Plan Manager, after launching the migration module, click **Plan Manager** next to the **Home** tab. In the **Plan Manager** interface, any plans that you have previously created are displayed in the main display pane.

In this interface, you can change the number of plans displayed per page. To change the number of plans displayed per page, select the desired number from the **Show rows** drop-down menu in the lower right-hand corner. To sort the plans, click the column heading such as **Plan Name**, and **Plan ID**.

Perform the following actions in the **Plan Manager** interface:

- Select a plan and click **View Details**. The source node and the destination node are displayed on the data tree. You can also click **Settings** on the ribbon to view the migration settings of this plan. When you want to change the nodes you selected or want to modify the migration settings, click **Edit** on the ribbon.
- Select a plan and click **Edit** on the ribbon to change the configurations for the selected plan. You can change the nodes you selected and modify the migration settings. Besides, you can click **Profile Settings** or **Create Container** to performing the corresponding actions.
- Select the plans that you want to delete and click **Delete** on the ribbon. A confirmation window appears, confirming that you want to proceed with the deletion. Click **OK** to delete the selected plans, or click **Cancel** to return to the **Plan Manager** interface without deleting the selected plans.
- Click **Test Run** to perform a test run job that simulates the real migration job. By viewing the job report of the test run, you can find whether the source content can be migrated to the destination successfully, and then adjust the plans or optimize the settings.

**\*Note:** Test Run results may differ from the results of an actual migration. Investigate Test Runs that display **Finished with Exceptions** results by reviewing the log file. If no obvious content, metadata, or permission errors are found, it is likely that the actual migration will complete successfully.

- Click **Run Now** to perform the migration job.
- **Generate Excel** – When selecting a file system migration plan, you can click **Generate Excel** to generate the Excel file to customize your own metadata file. For details of using the generated Excel file, refer to [Metadata Excel File](#).

## File System Migrator Tools

The file system migration tools are provided in the `...AvePoint\Agent\bin`. This tool is used to test the connection to the Net Share path, explore the file information of permissions and properties, run a test migration job to scan the source data, and configure the domain mapping, group mapping, and user mapping which can be used during File System migration. Refer to the [DocAve 6 Supplementary Tools User Guide](#) for instructions on using these tools.

## Appendix A: File System Migration Database Information

Refer to the following tables to view the detailed job information stored in the migration database. In [Job Detail](#), you can view the job details of each migrated source object, the source/destination object ID, the URL of the source/destination object, the size of the source object, the owner of the source/destination object, the migration start time, the end time, and so on. In [Job Notification](#), you can view the status of the migration job and view the comment related to the migration job. In [Job Statistic](#), you can view the statistical information of the migration job, such as, the job ID, the plan ID, the source/destination start time, the source/destination end time, the source/destination Agent name, the number of migrated/failed/skipped items/folders/lists, and so on.

## Job Detail

View the job details information in the table below.

Column Name	Description	Value
JobId	It is the ID of the job.	The prefix of the job ID facilitates the distinction of different migrations. The job ID for File System migration is FM.  For example, FM20120702184324729287.
SequenceId	It is the sequence ID of each migrated source object.	The value represents the sequence of each migrated source object. For example, 1, it indicates that this source object is the first migrated object.
SourceObjectId	It is the ID of the source object.	The value is the ID of the source object.
SourceObjectParentID		The value is the ID of the parent of the source object.
TargetObjectId	It is the ID of the target object.	The value is the GUID of each target object level from site collection level to item level. For example, df3f11c6-c499-4597-b4fc-d482a2fc9f56 is the GUID of the target folder.
TargetObjectParentID		The value is blank.
SourceFullUrl	It is the full URL of the source object.	The value is the full URL of the source object. Use the value to find the source object.
TargetFullURL	It is the full URL of the target object.	The value is the full URL of the target object. Use the full URL to find the target object. If the source object is not migrated to the target, the column value is blank.

<b>Column Name</b>	<b>Description</b>	<b>Value</b>
SourceObjectTitle	It is the title of the source object.	The value is the title of the source object.
TargetObjectTitle	It is the title of the target object.	The value is the title of the target object.
SourceObjectType	It is the type of the source object.	<p>The value represents the type of the source object, which is different according to the source you selected.</p> <ul style="list-style-type: none"> <li>• 10006– Folder</li> <li>• 10007 – Document</li> </ul>
TargetObjectType	It is the type of the target object.	<p>The value represents the type of the target object.</p> <ul style="list-style-type: none"> <li>• 10006 – Folder</li> <li>• 10007 – Document</li> </ul>
SourceObjectSizeBytes	It is the size of the source object. The unit is byte.	The value is the real size of the source object.
TargetObjectSizeBytes	It is the size of the target object. The unit is byte.	The value is the size of the target object.
SourceObjectOwner	It is the owner of the source object.	The value represents the user who creates the source object.
TargetObjectOwner	It is the owner of the target object.	The value represents the user who creates the target object.
SourceObjectVersion	It is the version of the source object.	The column value is blank.
TargetObjectVersion	It is the version of the target object.	The value represents the version of the current object in the destination.
Operation	It is the operation performed for each	The value represents the operation performed when

Column Name	Description	Value
	source object during migration.	<p>migrating the source object to the target.</p> <ul style="list-style-type: none"> <li>• 0 – None</li> <li>• 1 – Skipped</li> <li>• 2 – New Created</li> <li>• 3 – Overwritten</li> <li>• 4 – Appended</li> <li>• 5 – Filtered</li> <li>• 6 – Collapsed</li> <li>• 7 – Merge</li> </ul>
Status	It is the migration status of the source object.	<p>The value represents the status of the job.</p> <ul style="list-style-type: none"> <li>• 0 – Starting</li> <li>• 1 – Successful</li> <li>• 2 – Backup Failed</li> <li>• 3 – Restore Failed</li> <li>• 4 – Filtered Out</li> <li>• 5 – Skipped</li> <li>• 6 – Exceptional</li> </ul>
StartTime	It is the time when the backup starts.	The value represents the time when the backup starts.
EndTime	It is the time when the restore completes.	The value represents the time when the restore completes.
FilteredOutPolicy	It is the status of using filter policy.	<p>The value represents the status of using filter policy.</p> <ul style="list-style-type: none"> <li>• 0 – Not Used</li> <li>• 1 – Used</li> </ul>

<b>Column Name</b>	<b>Description</b>	<b>Value</b>
TruncatedPolicy	It is the truncated policy that is applied to the source object.	<p>The value represents the truncated policy that is applied to the source object.</p> <ul style="list-style-type: none"> <li>• None – No truncated policy.</li> <li>• Truncated – The object name is truncated.</li> <li>• Renamed – The object name is renamed.</li> <li>• MoveUp – The object is moved up to the higher level.</li> </ul>
TruncatedOrRenamedAs	It is the new name of the object in the target.	The value is the new name of the object in the target after truncating or renaming.
CustomMetadata	It is the status of using custom metadata.	<p>The value represents the status of using custom metadata.</p> <ul style="list-style-type: none"> <li>• 0 – Not Used</li> <li>• 1 – Used</li> </ul> <p>The default value is false.</p>
MetadataMapping	It is the status of using C-Based Object Oriented Language (C# Language) Mapping.	<p>The value represents the status of using C-Based Object Oriented Language (C# Language) Mapping.</p> <ul style="list-style-type: none"> <li>• 0 – Not Used</li> <li>• 1 – Used</li> </ul>
Message	It displays the migration message of the source object.	The value is the migration message of the source object.

## Job Notification

View the job notifications information in the table below.

Column Name	Description	Value
SequenceId	It is the ID of the sequence for each job.	The value represents the sequence of each job. For example, 1, it indicates that this job is the first migration job.
JobId	It is the ID of the job.	The prefix of the job ID facilitates the distinction of different migrations. The job ID for File System Migration is FM. For example, FM20120702184324729287.
Status	It is the status of the job.	<p>The value represents the status of the job.</p> <ul style="list-style-type: none"><li>• 0 – In Progress</li><li>• 2 – Finished</li><li>• 3 – Failed</li><li>• 4 – Stopped</li><li>• 7 – Finished With Exception</li><li>• 8 – Paused</li></ul>
Message	It displays the job comment.	The value displayed is the same as the comment in Statistics of Job Details.

## Job Statistic

View the job statistics information in the table below.

Column Name	Description	Value
JobId	It is the ID of the job.	The prefix of the job ID facilitates the distinction of different migrations. The job ID for File System migration is FM.  For example, FM20120702184324729287.
PlanId	It is the ID of the plan.	The value is the plan ID, for example, PLAN20120702184321934938.
PlanName	It is the name of the plan.	The value is the plan name. If you run a job without saving it as a plan, the value is Instance Plan.
PlanGroupId	It is the ID of the plan group.	The value is the ID of the executed plan group. The value appears when the entire plan group is executed.
PlanGroupName	It is the name of the plan group.	The value is the name of the executed plan group. The value appears when the entire plan group is executed.
SourceAgentType	It is the source Agent type.	The value represents the source Agent type. 1 indicates the source Agent type is File System.
TargetAgentType	It is the target Agent type.	The value represents the target Agent type. <ul style="list-style-type: none"><li>• 5 – SharePoint 2010</li><li>• 6 – SharePoint 2013</li></ul>

Column Name	Description	Value
		<ul style="list-style-type: none"> <li>• 11 – SharePoint Online</li> <li>• 12 – SharePoint 2016</li> </ul>
SourceAgentName	It is the source Agent name.	The value is the source Agent name.
TargetAgentName	It is the target Agent name.	The value is the target Agent name.
Status	It is the status of the job.	<p>The value represents the status of the job.</p> <ul style="list-style-type: none"> <li>• 0 – In Progress</li> <li>• 2 – Finished</li> <li>• 3 – Failed</li> <li>• 4 – Stopped</li> <li>• 7 – Finished With Exception</li> <li>• 8 – Paused</li> </ul>
Run Type	It is the type of the job.	<p>The value represents the type of the job.</p> <ul style="list-style-type: none"> <li>• 0 – Run</li> <li>• 1 – Test Run</li> </ul>
SourceStartTime	It is the time when the backup starts.	The value represents the time when the backup starts.
SourceFinishTime	It is the time when the backup completes.	The value represents the time when the backup completes.
TargetStartTime	It is the time when the restore starts.	The value represents the time when the restore starts.
TargetFinishTime	It is the time when the restore completes.	The value represents the time when the restore completes.
Description	It is the description of the job.	The value is the description of the job.

Column Name	Description	Value
UserName	It is the DocAve user who runs the job.	The value is the username who runs the job.
JobOption	It is the option of the job.	The value is 0.
JobType	It is the type of the job.	<p>The value represents the type of the migration job.</p> <ul style="list-style-type: none"> <li>• 0 – Full Migration</li> <li>• 1 – Incremental Migration</li> </ul>
ContainerConflictResolution	It is the container conflict resolution.	<p>The value represents the resolution of container conflict.</p> <ul style="list-style-type: none"> <li>• 0 – Skip</li> <li>• 5 – Merge</li> </ul>
ContentConflictResolution	It is the content conflict resolution.	<p>The value represents the resolution of content conflict.</p> <ul style="list-style-type: none"> <li>• 0 – Skip</li> <li>• 2 – Append</li> <li>• 3 – Overwrite</li> <li>• 8 – New Version</li> </ul>
MigratedBytes	It is the size of the migrated data. The unit is byte.	
FailedBytes	It is the size of the data that are failed to be migrated. The unit is byte.	
SkippedBytes	It is the size of the skipped data. The unit is byte.	
FilteredBytes	It is the size of the data that is filtered out. The unit is byte.	

<b>Column Name</b>	<b>Description</b>	<b>Value</b>
MigratedSiteCollectionCount	It is the number of migrated site collections.	N/A
MigratedSiteCount	It is the number of the migrated sites.	N/A
MigratedListCount	It is the number of the migrated lists.	N/A
MigratedFolderCount	It is the number of migrated folders.	
MigratedItemCount	It is the number of migrated items.	
FailedSiteCollectionCount	It is the number of site collections that are failed to be migrated.	N/A
FailedSiteCount	It is the number of the sites that are failed to be migrated.	N/A
FailedListCount	It is the number of the lists that are failed to be migrated.	N/A
FailedFolderCount	It is the number of the folders that are failed to be migrated.	
FailedItemCount	It is the number of the items that are failed to be migrated.	
SkippedSiteCollectionCount	It is the number of the skipped site collections.	N/A
SkippedSiteCount	It is the number of the skipped sites.	N/A
SkippedListCount	It is the number of the skipped lists.	N/A

<b>Column Name</b>	<b>Description</b>	<b>Value</b>
SkippedFolderCount	It is the number of the skipped folders.	
SkippedItemCount	It is the number of the skipped items.	
FilteredOutSiteCollectionCount	It is the number of site collections that are filtered out.	N/A
FilteredOutSiteCount	It is the number of sites that are filtered out.	N/A
FilteredOutListCount	It is the number of lists that are filtered out.	N/A
FilteredOutFolderCount	It is the number of folders that are filtered out.	
FilteredOutItemCount	It is the number of items that are filtered out.	
ExceptionFolderCount	It is the number of folders that are migrated with exception.	
ExceptionItemCount	It is the number of items that are migrated with exception.	

# Appendix B: Advanced Settings in File System Migrator Configuration Files

You are allowed to customize the file system migration settings by configuring the attribute of the corresponding node in the **FileSystemMigrationConfiguration.xml** file, and choose whether or not to use the illegal character replacement settings configured in the profile by configuring the attribute of the corresponding node in the **MigrationCommonConfiguration.xml** file.

## Configuring the **FileSystemMigrationConfiguration.xml**

To configure the **FileSystemMigrationConfiguration.xml** file in order to use the advanced settings of File System Migration, complete the following steps:

1. Navigate to the ... \Agent\data\Migrator\FileMigrator directory on the machine where the DocAve agent is installed and locate the **FileSystemMigrationConfiguration.xml** file.
2. Open the **FileSystemMigrationConfiguration.xml** file with Notepad. Refer to the information below to configure the attribute in the **FileSystemMigrationConfiguration.xml** file.
  - **GeneratePerformanceLog** – This node allows you to choose whether to collect the performance log, which records the performance about migrated items when performing a file system migration job. Enable/Disable this feature according to the AvePoint representative's suggestion. Set the value of the **Flag** attribute as explained below:
    - **true** – **true** means that the performance log will be collected when performing a file system migration job. By default, the value of the **Flag** attribute is set to **True**.
    - **false** – **false** means that the performance log will not be collected when performing a file system migration job.  
You can go to the DocAve Agent installation path ... \AvePoint\DocAve6\Agent\jobs to find the file system migration job folder, for example, **FM20121229190052401100\_Restore**. The performance log, for example, **FMRestorePerformance.xml**, is generated in this job folder.
  - **ExternalSecurity** – This node allows you to choose whether to apply the mapping XML files generated by Migrator Tool to file system migration jobs.
    - **true** – **true** means that the mapping XML files generated by Migrator Tool will be applied to file system migration jobs.

- **false – false** means that the mapping XML files generated by Migrator Tool will not be applied to file system migration jobs. This is the default value.
- **CreateNewTermIfDoesNotExist** – This node allows you to choose whether to create new terms in the destination when the source property values do not exist in the destination.
  - **True – True** means File System Migration will create new terms in the destination when the source property values do not exist in the destination. This is the default value.
  - **False – False** means File System Migration will not create new terms in the destination when the source property values do not exist in the destination.
- **CompressZip** – This node allows you to choose whether to migrate the source file whose type is set as blocked file in SharePoint as a ZIP file.
  - **True – True** means the source file blocked by SharePoint will be migrated as a ZIP file.
  - **False – False** means the source file blocked by SharePoint will not be migrated to the destination. This is the default value.
- **LoadModerationStatus** – This node allows you to choose how to migrate the content approval status that is defined in the customized Metadata file.
  - **True – True** means the value defined in the Metadata file will become the file's approval status in the destination.
  - **False – False** means the value defined in the Metadata file will be migrated as the value of a Single Line of text column. This is the default value.
- **IsOffice365MultiThread** – This node allows you to choose whether to migrate the source file to SharePoint Online using multiple threads.
  - **True – True** means using multiple threads to migrate the source to SharePoint Online is supported.
  - **False – False** means using multiple threads to migrate the source to SharePoint Online is not supported. This is the default value.
  - **ThreadNumber** – Enter a positive integer to specify how many threads will be used to migrate the source to SharePoint Online. The default value is **5**.
- **UpdateContentTypeFields** – This node allows you to choose whether to migrate the customized columns of a file which contain values in the metadata file to the specified content type in SharePoint.

- **True – True** means the customized columns of a file which contain values in the metadata file will be migrated to the specified content type.
- **False – False** means the customized columns of a file which contain values in the metadata file will not be migrated to the specified content type. This is the default value.

**\*Note:** When the content type is not specified in the metadata file, the columns will be migrated to the default content type in SharePoint.

**\*Note:** This node is only supported for the content types at the library level.

- **UploadFileToAzureThreadNumber** – This node allows you to configure the number of threads to back up, encrypt (if configured), and upload file system data to a Microsoft Azure location in a File System High Speed Online Migration job. The default value is **10**.

**\*Note:** The number of threads configured here effects the utilization of the CPU. Configure this number based on the size of the file system data you want to migrate and the computer configuration of the file system server.

- **ExportMD5TaskCount** – This node allows you to configure the number of threads that will be used simultaneously in one job of the **AgentToolExportMD5.exe** that is automatically run by File System High Speed Migration Export job. The default value is **10**.

For more information on executing **AgentToolExportMD5.exe**, refer to the **AgentToolExportMD5** section of the [DocAve 6 Supplementary Tools User Guide](#).

- **WaitSourceFileUploadTime** – This node allows you to configure the time threshold during which a File System High Speed Online Migration job's import process waits for the upload of file system data to the Microsoft Azure location. The default time threshold is **1** hour.
- **HSMTimeOutMinutes** – This node allows you to configure a session time-out value for File System High Speed Migration jobs. The default value is **900**, which means that a thread of a File System High Speed Online Migration job or File System High Speed Migration Import job will time out if it hangs for 900 minutes.
- **IsEnablePlaceHolder** – This node allows you to choose whether or not to enable the placeholder for property value migration in File System High Speed Migration, when no user mapping is applied or when the mapped target users do not exist in the destination. The property values are the values of the source properties with the type of User.

- **True** – This is the default value. File System High Speed Migration will migrate the values of the User attributes to the destination.
    - **False** – File System High Speed Migration will not migrate the values of the User attributes to the destination. In the destination metadata values, the source usernames will be replaced with the name of the user whose credentials are used to register the corresponding SharePoint Online site collections in Control Panel.
  - **IsBackUpAndRestoreCustomProperty** – This node allows you to choose whether or not to migrate documents' custom properties in File System Migration.
- \*Note:** This function only takes effect on .doc, .docx, .xls, .xlsx, .ppt, and .pptx documents, and it is unavailable for File System High Speed Migration.
- **True** – File System Migration will migrate documents' custom properties to the destination.
  - **False** – This is the default value. File System Migration will not migrate values of the documents' custom properties to the destination.

3. Save the modifications and close the XML file.

## Configuring the **MigrationCommonConfiguration.xml**

In order to use the illegal character replacement settings, configure the **MigrationCommonConfiguration.xml** file. To configure the file, complete the following steps:

1. Go to the machine where the source DocAve Agent is installed.
2. Open the ... \AvePoint\DocAve6\Agent\data\Migrator\MigrationCommonMigrator directory and find the **MigrationCommonConfiguration.xml** file.
3. Open the XML file and find the `<IsEnableIllegalCharReplacement Flag=" "/>` node.
4. Configure the value of the **Flag** parameter.
  - **true** – **true** means the default configured mappings of illegal characters will be used even when they have been deleted from the profile used in the migration job. The default value is **true**.

**\*Note:** If a folder name ends with periods, all of the periods will be replaced with an underscore ( \_ ) after the migration. If a file name ends with periods, the last period will be replaced with an underscore ( \_ ) after the migration.

  - **false** – **false** means the configured mappings of illegal characters in the profile will be used in the migration job.
5. Save the modifications and close the XML file.

**\*Note:** The modifications made to this file take effect on jobs of all Migration modules except SharePoint Migration.

## Enabling the Synchronization Feature

You can synchronize the move, rename, and delete actions on the source data in File System High Speed Migration incremental jobs by editing the sub-profile file used in incremental jobs. For example, you can run a migration job and then delete some source data, which is moved to the recycle bin after the migration job finishes, and then run an incremental migration job. The corresponding destination data will be deleted and moved to the recycle bin after the incremental migration job finishes.

Complete the following steps to edit the sub-profile file:

1. Log into the DocAve Manager and navigate to **Migration > File System Migration > High Speed Migration > Profile Settings**. The **Profile Settings** tab appears.
2. In the **Profile Settings** tab, select the **Migration Options** sub-profile that was used in the plan of the last full or incremental migration job from the drop-down list and click **Edit Sub-profile** in the **Sub-profile** group on the ribbon.
3. Click **Download** in the **Sub-profile** group on the ribbon and save the .xml file of the sub-profile to a storage location.
4. Find the downloaded .xml file and open it with Notepad.
5. Add the following nodes above the **</FileMigrationOptionsSubProfileContent>** node.

```
<ExtensionContent>
<FileNodes>
<IncrementalDeletion Enabled="true"/>
</FileNodes>
</ExtensionContent>
```
6. Save the changes to the file and close it.
7. Click **Upload** in the **Sub-profile** group on the ribbon and select the modified .xml file to upload.
8. Select the **Overwrite current profile** option and click **Upload** in the pop-up window.
9. Click **Save** in the **Profile/Sub-profile** group on the ribbon.

10. Run an incremental job for the plan. The move, rename, and delete actions performed in the source node since the last migration job can now be synchronized to the destination by this incremental migration job.

## Appendix C: Conflict Resolution

In this appendix, each resolution is described in detail. View the tables below for your reference.

### Container Level Conflict Resolution

Resolution	Object	Conflict	No Conflict
Skip	Configuration	Ignore the conflicting configuration and do nothing on the destination.	A new SharePoint object will be created.
	Security	Ignore the conflicting security and do nothing on the destination.	A new SharePoint object will be created.
Merge	Configuration	Merge the settings in the destination node with settings from the source node.	A new SharePoint object will be created.
	Security	Permissions – Source permissions that do not already exist in the destination node will be added to the destination node.  Permission Levels – the permission levels that do not already exist in the destination node will be added to the destination node. The permission levels that already exist in the destination node will not be replaced.	A new SharePoint object will be created.

## Content Level Conflict Resolution

Resolution	Object	Conflict	No Conflict
Overwrite	Content	Delete the conflicting content on destination first and overwrite it with the source content.	A new SharePoint object will be created.
Skip	Content	Ignore the conflicting content and do nothing on destination.	A new SharePoint object will be created.
Append	Content	The conflicting content will not be deleted; and the conflicting data will be migrated to the destination by adding a suffix (_1, _2, ..., increasing in numerical value).	A new SharePoint object will be created.
New Version (only for File System Online Migration)	Content	The conflicting content will be migrated to the destination as a new version.	A new SharePoint object will be created.
	Security	Permissions – Source permissions that do not already exist in the destination node will be added to the destination node.  Permission Levels – The permission levels that do not already exist in the destination node will	A new SharePoint object will be created.

<b>Resolution</b>	<b>Object</b>	<b>Conflict</b>	<b>No Conflict</b>
		be added to the destination node. The permission levels that already exist in the destination node will not be replaced.	

**\*Note:** If there are destination objects conflict with the source objects that have the same name, and the **Overwrite** content level conflict resolution is selected, the destination conflicting objects will be deleted and the source objects will be migrated to the destination by adding a suffix (\_1,\_2,..., increasing in numerical value) from the second migrated object.

## Appendix D: Data Integrity for File System High Speed Migration

This section describes how data integrity is being maintained in File System High Speed Migration.

The File System High Speed Migration has 3 main data transfer processes:

- **File Retrieve Flow** – This process happens when the DocAve agent for File System High Speed Migration retrieves data from the customers' existing file system environment. Refer to [File Retrieve Flow](#) for details.
- **File Upload Flow** – This process happens when data is put into Microsoft Azure, which is required by high speed migration technology provided by Microsoft. Refer to [File Upload Flow](#) for details.
- **File Import Flow** – This process happens when the high-speed migration queue puts data into Office 365, which is done through the Microsoft high speed migration queue. Refer to [File Import Flow](#) for details.

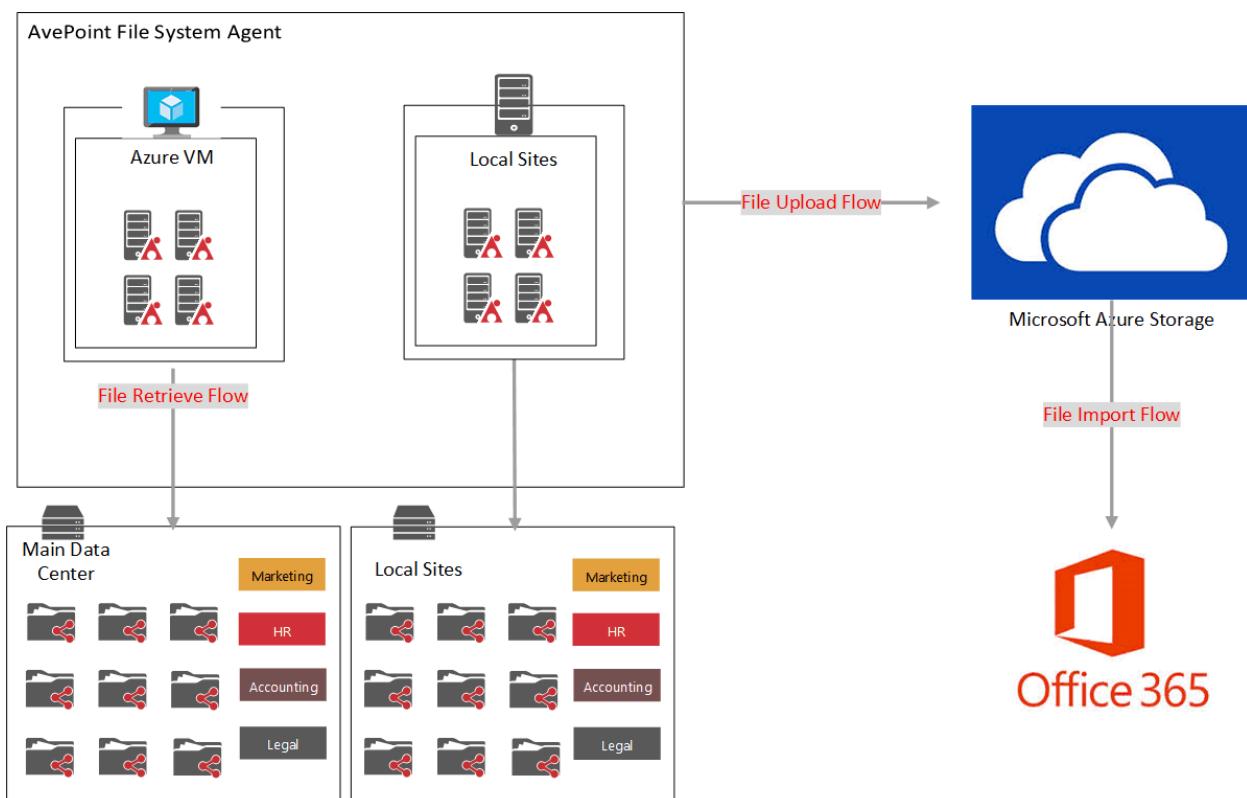


Figure 4: Architecture for File System High Speed Migration.

## File Retrieve Flow

The DocAve agent for File System High Speed Migration is responsible for retrieving data from the customers' file system. Depending on where the file server is located, the DocAve agent will be deployed on either the customers' local infrastructure or on Microsoft Azure.

The DocAve agent for File System High Speed Migration will use the standard .Net System IO API for retrieving purpose.

- The DocAve agent will first connect with the file system server through net share, and use the **System.IO.FileInfo** assemble to get the file information.
- The DocAve agent will retrieve the following information: file content byte size, file extension, file access time, file create time, to generate the hash number for checksum.
- After the hash number has been generated, it will be stored in process memory. The process will start to retrieve the file stream.
- The file stream is being retrieved in batch by using the **System.IO.FileStream** assemble. Once all content has been retrieved, the process will check the same information for retrieved stream to generate the hash number including: file content byte size, file extension, file access time, and file create time.
- The process will compare both hash numbers to make sure there is no content modification happening during retrieving. The modification includes: virus scanner injection, stream loss, network latency issues, etc.

## File Upload Flow

The File Upload Flow can be achieved in two ways:

- Azure Storage API – The API framework is provided by Microsoft. AvePoint will use the API interface to upload the file content based on the required format that Microsoft high speed migration API requests.
- A shipment vendor – You can call the shipment vendor to express the disk which stores the content exported by File System Migration. The disk is required to have a hash number and to be encrypted.

Refer to Microsoft' website for further details:

<http://www.sharepointevolved.com/2016/04/07/sharepoint-online-high-speed-migration-resources/>

## File Import Flow

The File Import Flow uses the Microsoft high speed migration queue by calling Microsoft SDK. Once data is put into the queue, it will be imported into Office 365 automatically.

For details on how to call the Microsoft SDK, refer to: <https://msdn.microsoft.com/en-us/library/office/microsoft.sharepoint.client.site.createmigrationjob.aspx>

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