



# **DocAve® 6 Granular Backup and Restore**

## **User Guide**

**Service Pack 4, Cumulative Update 3**

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# About DocAve Granular Backup and Restore

DocAve Granular Backup and Restore for SharePoint 2010 and SharePoint 2013 ensures resiliency of service in the event of a disaster and quickly recovers lost or corrupted content with database or granular restores.

Granular Backup and Restore offers full, incremental, and differential backup capabilities for SharePoint content, enabling the user to build backup plans and schedules that focus on frequent backup of high priority data, thereby improving backup operations and storage efficiency.

## 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 Granular Backup and Restore:

- DocAve Platform Backup and Restore to back up the entire SharePoint environment, including farm-level components
- DocAve Replicator for SharePoint for copying SharePoint content within the same SharePoint farm or from one SharePoint farm to another
- 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

# 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 for system and farm requirements that must be in place prior to installing and using Granular Backup and Restore.

## Configuration

In order to use Granular Backup and Restore, the DocAve 6 platform must be installed and configured properly on your farm. Granular Backup and Restore will not function without DocAve 6 present on the farm.

## 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 Granular Backup and Restore 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; 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

Refer to the section below for the required permissions to use Granular Backup and Restore.

### Granular Backup and Restore for SharePoint On-Premises Permissions

To install and use Granular Backup and Restore on the SharePoint on-premises environment properly, ensure that the agent account has the required permissions.

1. **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.
2. **SharePoint Permissions:** These permissions must be manually configured prior to using DocAve 6 Granular Backup and Restore; 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.

- User Profile Service Application:
    - For SharePoint 2010
      - Use Personal Features
      - Create Personal Site
      - Use Social Features
    - For SharePoint 2013
      - Create Personal Site
      - Follow People and Edit Profile (required for personal storage, newsfeed, and followed content)
      - Use Tags and Notes
  - Managed Metadata Service:
    - Term Store Administrator
    - Administrator with Full Control permission
  - Business Data Connectivity Service: Full Control
  - Search Service: Full Control
  - User Profile Connection Permission:
    - Administrator
    - Full Control
3. SQL Permissions: These permissions must be manually configured prior to using DocAve 6 Granular Backup and Restore; they are not automatically configured.
- Member has a Database Role of **db\_owner** for all of the databases related to SharePoint, including Content Databases, Config Database, and Central Admin Database.
    - Creator and Security Admin permission to SQL Server
  - Database Role of **db\_owner** for FBA database if forms based authentication (FBA) is enabled in SharePoint Web applications.
  - Database Role of **db\_owner** for User Profile Service database, Nintex workflow database.

## Granular Backup and Restore for SharePoint Online Permissions

To install and use Granular Backup and Restore on SharePoint Online environment properly, ensure that the Office 365 account and Agent account have enough permission.

1. Agent account permissions:
  - 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.

**\*Note:** If the registered site collections are SharePoint Online site collections, the Agent account is on the Agent machine that has network connection or has configured **Agent Proxy Settings** before registering SharePoint Online site collections.

If the registered site collections are on-premises site collections, the Agent account is on the Agent machine that will run the Granular Backup and Restore job.

## 2. Site Collection user permissions:

- User is a member of the **Site Collection Administrators** group.
- User Profile Service Application permissions:
  - Follow People and Edit Profile
  - Use Tags and Notes
  - Full Control (only when the registered site collections are on-premises site collections)
- Managed Metadata Service: Term Store Administrator
- **Read** permission to the **Apps for SharePoint** library in catalog site.

**\*Note:** To register site collections using the **Scan Mode**, make sure the specified site collection user has the following permissions:

- When the registered site collections are on-premises site collections  
Policy for Web Application: Full Control
- When the registered site collections are SharePoint Online site collections:  
User has the **Global administrator** role

**\*Note:** If you want to properly restore user profile properties to SharePoint Online, the user profile property settings in the source must be configured before using Granular Backup and Restore. (In the Office 365 SharePoint admin center, navigate to **user profiles > Manage User Properties**. Select the property you want to restore, and then select **Edit** from the drop-down menu. Select the **Allow users to edit values for this property** option in the **Edit Settings** field, and then click **OK** to save settings.)

## 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\EventLog6*
  - Full Control to the Communication Certificate
  - Permission of Log on as a batch job (navigate to: **Control Panel > Administrative Tools > Local Security Policy > Security Settings > Local Policies > User Rights Assignment**)
  - Full Control to the DocAve Agent installation directory

## Health Analyzer

AvePoint recommends using Health Analyzer to check the prerequisites required to correctly use DocAve Granular Backup and Restore.

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

**\*Note:** You can ignore the **Agent Account Cannot be SharePoint System Account** rule, if you are not going to back up and restore SharePoint apps.

For more information about Health Analyzer, refer to the [DocAve 6 Control Panel Reference Guide](#).

# Getting Started

SharePoint and the DocAve platform modules have common functionality. While some of this shared functionality is covered in this guide, the primary focus of this document is the functionality that is specific to the DocAve module.

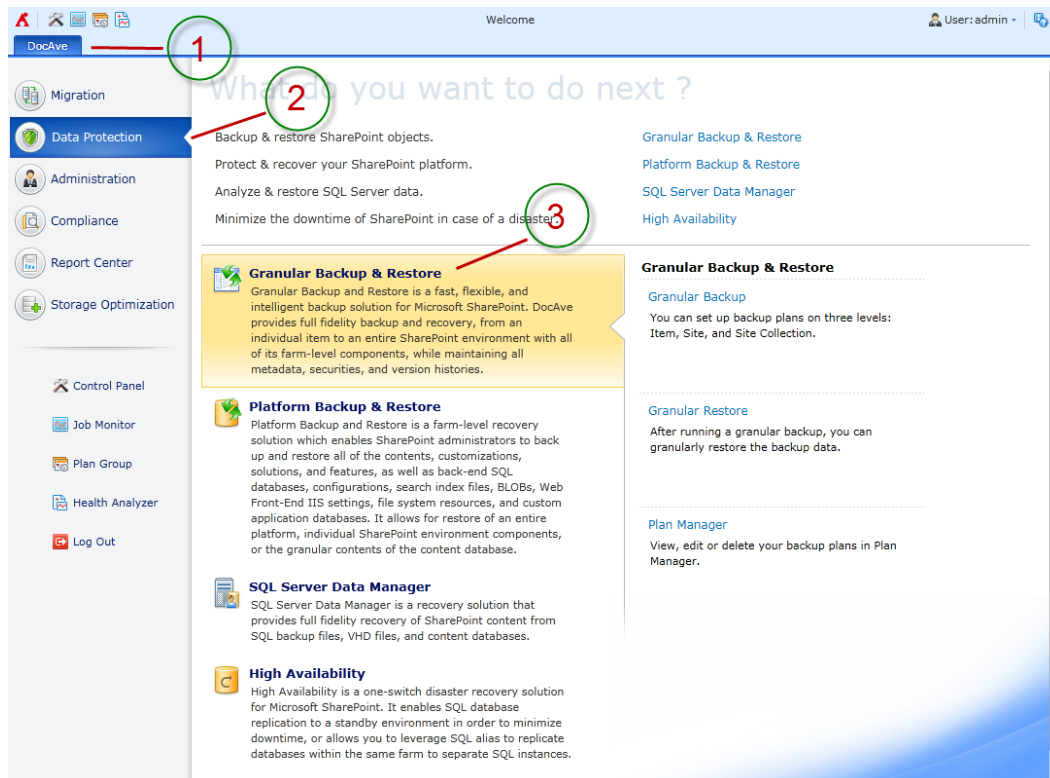
For information on the shared functionality not covered in this document, refer to SharePoint Help.

Refer to the sections below for important information on getting started with Granular Backup and Restore.

## Launching Granular Backup and Restore

To launch Granular Backup and Restore and access its functionality, complete the following steps:

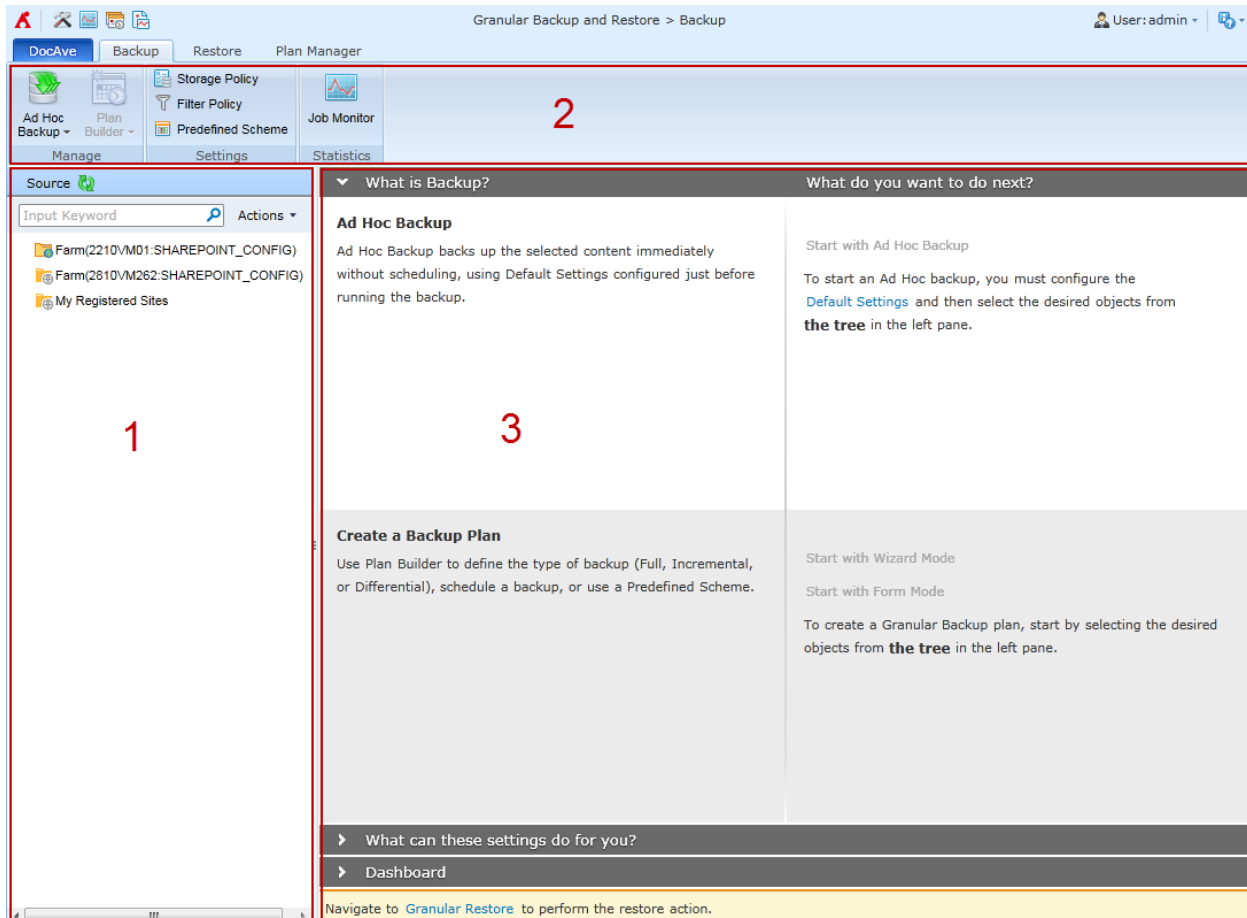
1. Log in to DocAve. If you are already in the software, click the **DocAve** tab. The **DocAve** tab displays all modules on the left side of the window.
2. From the **DocAve** tab, click **Data Protection** to view the backup modules.
3. Click **Granular Backup & Restore** to launch this module.



**Figure 1:** DocAve module launch window.

## User Interface Overview

The Granular Backup and Restore user interface launches with the **Backup** tab active. This tab displays your farm environment and allows for quick access to a list of Granular Backup and Restore features.



**Figure 2:** Granular Backup and Restore user interface.

1. The **SharePoint tree** (in the **Source** panel) displays all content within your farms. Use this panel to select the content that you want to perform actions on. Selecting content often reveals new tabs and functionality on the **ribbon**.
2. The **ribbon** shows the available actions and wizards for the selected nodes. This content is dynamic; it will often change depending on what is selected in the SharePoint tree.
3. The **workspace** shows all form-based content that is used during the configuration of actions performed in DocAve products.

## Selecting Farms and Nodes

To select farms and nodes, complete the following steps:

1. From the **Source** panel on the left, select the farm that contains the relevant SharePoint content.
2. Click the checkboxes to the left of the nodes to select the relevant content you want to work with.
3. After selecting content, you will be able to perform the procedures described throughout this guide.

## Configuring Devices and Setting Up Storage Policies

In order to perform a backup job using Granular Backup and Restore, it is necessary to first configure one or more physical devices and then set up a storage policy.

When performing a backup job, Granular Backup and Restore can write to Net Share, FTP, Amazon S3, AT&T Synaptic, Caringo Storage, Dell DX Storage, Dropbox, EMC Centera, HDS Hitachi Content Platform, IBM Storwize Family, Rackspace Cloud File, OneDrive, TSM, or Windows Azure Storage.

In addition, DocAve has the ability to treat multiple storage devices as a single logical unit when saving backup data. This feature is especially useful for very large backup plans, as many small drives can be combined. A logical drive must be defined before creating a backup plan.

For instructions on defining devices and setting up storage policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

# Performing a Backup

There are several ways to configure and perform a granular backup. Once you select the content you want, you can run backups using the following methods:

- [Using Ad Hoc Backup](#)
- [Using the Plan Builder](#) ([Using Wizard Mode](#) or [Using Form Mode](#))

For more information regarding backup and recovery, refer to the Microsoft TechNet article [Backup and recovery best practices \(SharePoint Server 2010\)](#) and [Backup and Restore \(SharePoint 2013\)](#). For the elements in SharePoint 2013 that are supported to be backed up, refer to Elements Unsupported to Be Backed Up in SharePoint 2013.

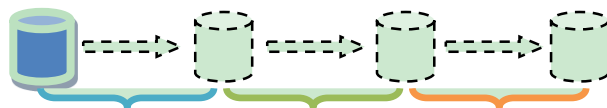
## Overview of Backup Types

When configuring a backup plan using the [Using the Plan Builder](#) or [Predefined Schemes](#), there are three backup types you can select from to perform a backup job: **Full**, **Incremental**, or **Differential**.

The **Full** option backs up all of the selected data each time a backup is performed. This option requires the most storage space because, depending upon the size of your SharePoint environment, each backup file can be substantial in size. Unlike incremental and differential backups, all full backup files are independent of one another and do not have any dependencies on other back up data files. However, because each of the backups is comprehensive, full backup jobs take the longest to complete of the three available options.

The **Incremental** option backs up only the content that has been updated since the last backup, drastically reducing the size of the backup file created. The most common option, this backup requires less storage than a full or differential backup. Incremental backups reduce execution time, thereby allowing for shorter backup windows. It is important to note, however, that in order to recover all of the most recent SharePoint data from an incremental backup, all of the backup files must be available. Consider each incremental backup file as a piece of the whole SharePoint environment. If one of these files is not available, the full SharePoint environment cannot be restored.

For example, the following four cylinders represent four backups and they are performed in this order—Full Backup, Incremental Backup, Incremental Backup, Incremental Backup:

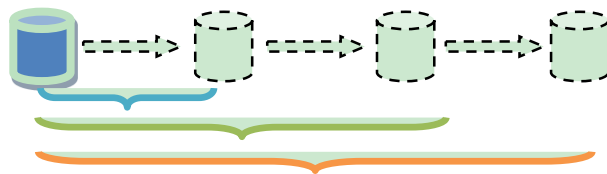


**Figure 3:** One Full backup followed by three Incremental backups.

1. The first Incremental Backup backs up the newly-added data in the **blue period**.
2. The second Incremental Backup backs up the newly-added data in the **green period**.
3. The third Incremental Backup backs up the newly-added data in the **orange period**.

Each time it runs, the **Differential** option backs up all content that has been updated since the last full backup. These backup files are larger in size than incremental files, but smaller than full backup files. In order to recover all of the most recent SharePoint content, the first full backup file and latest differential backup file are required.

For example, the following four cylinders represent four backups and they are performed in this order – Full Backup, Differential Backup, Differential Backup, Differential Backup:



**Figure 4:** One Full backup followed by three Differential backups.

1. The first Differential Backup backs up the newly-added data in the **blue period**.
2. The second Differential Backup backs up the newly-added data in the **green period**.
3. The third Differential Backup backs up the newly-added data in the **orange period**.

**\*Note:** Due to SharePoint API limitations, when you run an incremental or a differential backup at the site collection level using the same plan, the Apps and AppData in the site collection that was backed up in the previous full backup job will also be fully backed up.

## Selecting Content to Back Up



There are two options to select the content to back up: Browse and Search. To select the content to back up, refer to the sections below.

**\*Note:** If the content is stub content, DocAve only backs up real files of those stubs generated by EBS and RBS. In addition, Granular Backup jobs will not capture linked content.

## Selecting Content by Search

For a large environment, use the search function to quickly locate the target content. To use the search function, complete the following steps:

1. Locate the **Source** panel on the left-hand side of the screen.
2. In the search field at the top of the **Source** tab, enter the characters from the SharePoint object URL or name you want to search for.

3. Click the magnifying glass () to start the search or wait a moment for it to start automatically. When the search is running, you can click the stop button () to stop the search, if needed.
4. Select the relevant objects that you want to back up by clicking the checkboxes to the left of the objects. You can select objects in one farm.

**\*Note:** When you use the **Select All** node to select all of the child nodes under your selected node, the **Include New** function takes effect automatically for this plan/job. Even a SharePoint object is created in the selected scope after the plan is saved, the content under the node can be backed up automatically by the backup job.

- If you directly select the **Select All** option, the current nodes and the new nodes created after the backup plan is saved will be backed up in the backup job.
  - If you manually selected all of the nodes one by one, the **Select All** option will be automatically selected, but the new nodes created after the backup plan is saved will not be backed up in the backup job.
5. After selecting content, choose to perform either a backup using the Using Ad Hoc Backup or a backup using the Using the Plan Builder.

## Selecting Content by Browse

To browse through the SharePoint farm objects, complete the following steps:

1. From the **Source** panel on the left, double-click the farm that contains the relevant SharePoint content. A list of objects appears beneath the farm entry.
2. Select the relevant objects that you want to back up by clicking the checkboxes to the left of the object. You can select objects in one farm.

**\*Note:** When you use the **Select All** node to select all of the child nodes under your selected node, the **Include New** function takes effect automatically for this plan/job. Even a SharePoint object is created in the selected scope after the plan is saved, the content under the node can be backed up automatically by the backup job.

- If you directly select the **Select All** option, the current nodes and the new nodes created after the backup plan is saved will be backed up in the backup job.
  - If you manually selected all of the nodes one by one, the **Select All** option will be automatically selected, but the new nodes created after the backup plan is saved will not be backed up in the backup job.
3. After selecting content, choose to perform either a backup using the Using Ad Hoc Backup or a backup using the Using the Plan Builder. See the appropriate section below.



## About Ad Hoc Backup

An Ad Hoc Backup backs up the selected content immediately (without setting up a schedule) using the default settings, which need to be configured prior to running the backup.

**\*Note:** An Ad Hoc backup is a back-end process, meaning that the job runs in the background. The user can continue to navigate through the user interface without having to first terminate the running job.

To use Ad Hoc Backup, you must first define the default settings, as described below.

### Configuring Default Settings

To use Ad Hoc Backup, it is necessary to first configure the default settings. To configure default backup settings, complete the following steps:

1. After Selecting Content to Back Up, click **Ad Hoc Backup** on the ribbon of the **Backup** tab.
2. Select **Default Settings** from the drop-down list. The **Default Settings** page appears.
3. **Storage Policy** – Select the storage policy for the backup data, or create a new storage policy in the **Specify a storage policy** drop-down list. A storage policy is used to configure a set of rules for storing backed up data. It also supports the following functions:
  - Pruning the data backed up by Granular Backup and Restore and delete or move the pruned backup data.
  - When you add more than one Media services in a storage policy, it supports the automatic failover that causes another Media service in the storage policy to take over the role of the Media service that is down during the backup job.

For more information on working with storage policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

4. **Filter Policy** – Select a filter policy or create a new one to limit the scope of the backup job by making a selection from the drop-down list in the **Filter Policy** field. A filter policy sets up filter rules to control what objects will be backed up. For more information on working with filter policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** When using the filter policy for backing up data stored in SharePoint Online, the **Created By** criterion is not supported. The job using the **Created By** criterion will have a **Failed** status. The information will be recorded in the job report.

5. **User Profile** – Select whether or not to **Include user profile**. This option decides if user profiles are going to be backed up with the security.
6. **Workflow** – Select how you want to manage the workflow in the source.
  - **Include workflow definition** – Backs up only the definition of existing source workflows.
  - **Include workflow instance** – Backs up the state, history, and tasks of each item. This option is available after selecting **Include workflow definition**.

7. **Data Compression** – Select an optional data compression setting. Select the **Compression** checkbox to enable data compression, and then choose a compression level using the slider. A low compression level results in a faster compression rate but a larger data block, while a high compression level results in a slower compression rate but a smaller, better quality data block.  
  
**\*Note:** Small data blocks cause slower backup and additional recovery time. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for compression.
8. **Data Encryption** – Select the **Encryption** checkbox (optional) to enable data **encryption**. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for encryption. Then, select a security profile or create a new one in the **Security profile** drop-down list. For more information on working with security profiles, refer to the [DocAve 6 Control Panel Reference Guide](#).  
  
**\*Note:** Encrypting data causes slower backup and additional recovery time.
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](#).

## Using Ad Hoc Backup

In order to perform an Ad Hoc Backup, you must first configure the Configuring Default Settings.

To initiate an ad hoc backup, complete the following steps:

1. After Selecting Content to Back Up, click **Ad Hoc Backup** on the ribbon of the **Backup** tab.
2. Select **Ad Hoc Backup** from the drop-down list. The **Ad Hoc Backup** page appears.
3. DocAve automatically loads your Configuring Default Settings into the **Ad Hoc Backup** page. Edit these settings as needed.
4. Click **Run Now** at the bottom of the window to start the backup job. View the job details in Job Monitor.

## Using the Plan Builder

Configuring Plan Builder is very similar to configuring the default settings for an Ad Hoc Backup. Use the Plan Builder when you want to schedule a backup and define the type of backup (Full, Incremental, or Differential) or when you want to use the Predefined Schemes feature.

**\*Note:** A backup run with Plan Builder is a back-end process, meaning that the job runs in the background. The user can continue to navigate through the user interface without having to first cancel the running job.

To use the Plan Builder, complete the following steps:

1. After Selecting Content to Back Up, click **Plan Builder** from the **Backup** tab.

2. From the drop-down menu, select Using Wizard Mode for step-by-step guidance during configuration, or select [Using Form Mode](#) (recommended for advanced users only).

See the section below applicable to your choice.

## Using Wizard Mode

To configure a plan using Wizard Mode, complete the following steps:

**\*Note:** A red asterisk (\*) marked next to a field in the DocAve GUI indicates a mandatory field.

1. **Plan Name** – Enter a **Plan Name** and an optional **Description**, if desired. Click **Next**. The **Storage Policy** page appears.
2. **Storage Policy** – Configure the **following** settings:
  - **Storage Policy** – Select the storage policy for the backup data, or create a new storage policy in the **Specify a storage policy** drop-down list. A storage policy is used to configure a set of rules for storing backed up data. And it also supports the following functions:
    - Pruning the data backed up by Granular Backup and Restore and delete or move the pruned backup data.
    - When you add more than one Media services in a storage policy, it supports the automatic failover that causes another Media service in the storage policy to take over the role of the Media service that is down during the backup job.

For more information on working with storage policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

- **Data Compression** – If you want to enable data compression, you can optionally select the **Compression** checkbox, and then choose a compression level using the slider. A low compression level results in a faster compression rate but a larger data block, while a high compression level results in a slower compression rate but a smaller, better quality data block.

**\*Note:** Small data blocks cause slower backup and additional recovery time. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for compression.

- **Data Encryption** – If you want to enable data encryption, you can optionally select the **Encryption** checkbox. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for encryption. Then, select a security profile or create a new one in the **Security profile** drop-down list. For more information on working with security profiles, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** Encrypting data causes slower backup and additional recovery time.

Click **Next** when you are finished configuring the storage policy. The **Schedule** page appears.

3. **Schedule – Select** a scheduling option. Note that this field determines the type of backup (Full, Incremental, or Differential) that will be run.

- **No Schedule** – Select this option to configure the job to not run on a schedule (the job must be manually initiated).
- **Select a Predefined Scheme** – Select this option to run the backup on a Predefined Schemes.
- **Configure the schedule myself** – Select this option to configure a customized schedule, and run the backup job by schedule. Click **Add Schedule** to set up a schedule. The **Add Schedule** window appears. In the **Options** section, select a backup type from the drop-down list. For more information, see Overview of Backup Types.
  - **Full Backup** – A full backup of the selected source.
  - **Incremental Backup** – A partial backup; backs up only the content that has been updated since the last backup, whether it's Full, Incremental, or Differential.
  - **Differential Backup** – A partial backup; backs up only the data that has been updated since the last full backup.

**\*Note:** For SharePoint apps, no matter which backup type you choose, Granular Backup job will perform a full backup for the apps in the selected scope.

After configuring the schedule, click **Calendar View** to view the scheduled plans by day, week, or month.

**\*Note:** Frequent consecutive differential backups have a tendency to repeatedly back up the same data, which fills disk space quickly. For best results when conducting high frequency backups, it is recommended to use incremental backups. Incremental backups save time and storage space by backing up only the differences between incremental backups or an incremental backup and a full backup, instead of backing up the entire source location.

Click **Next** when you are finished. The Restore Granularity Level appears.

4. **Restore Granularity Level – Select** a granularity level to restore: **Item**, **Site**, or **Site Collection**. Review the table to learn the pros, cons, and recommendations for each selection. Click **Next** when you are finished. The **Advanced** page appears.

5. **Advanced** – Define the advanced settings:

- **Agent Group** – Select the agent group for the backup data or create a new agent group from the drop-down list. For more information on working with agent groups, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **Filter Policy** – Select a filter policy from the drop-down list or create a new policy to limit the scope of the backup job. For more information on working with filter policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** When using the filter policy for backing up data in SharePoint Online, the **Created By** rule is not supported. The detailed information will be recorded in the job report.

- **User Profile** – Select the **Include user profile** checkbox if you want to back up the user profile with the security.
- **Workflow** – Select how you want to manage the workflow in the source.
  - **Include workflow definition** – Backs up only the definition of existing source workflows.
  - **Include workflow instance** – Backs up the state, history, and tasks of each item. This option is available after selecting **Include workflow definition**.
- **Notification** – Select the e-mail notification profile for sending e-mails. For more information on working with notification policies, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **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. Once a plan is added to the plan group, the plan group's settings will take effect. If **Disable the schedule for each plan and run plans according to the plan group's schedule** is selected and **No Schedule** is configured for the plan group, the plan will have no schedule. If **Disable the schedule for each plan and run plans according to the plan group's schedule** is not selected in the plan group settings, the plan's schedule still works after you add it to the plan group. For more information on plan groups, refer to the [DocAve 6 Control Panel Reference Guide](#).

When you are finished setting up notifications, click **Next** on the ribbon. The **Overview** screen appears.

6. **Overview** – Review and edit the plan selections. To make changes, click **Edit** to the right of the row. This links to the corresponding setting page, allowing you to edit the configuration.
7. Click **Finish** or **Finish and Run Now** on the lower-right section of the screen. The backup plan will now appear in Plan Manager.

**\*Note:** If you click **Finish and Run Now** after you configure a backup plan, or when you select a plan in Plan Manager and run it, a pop-up window will appear for you to set the backup and job report types.

## Using Form Mode

Form Mode is intended for advanced users only. To configure a plan using Form Mode, complete the following steps:

**\*Note:** A red asterisk (\*) marked next to a field in the DocAve GUI indicates a mandatory field.

1. **Plan Name** – Enter a **Plan Name** and optional **Description**, if desired.

2. **Storage Policy** – Select a storage policy for the backup data or create a new one in the **Specify a storage policy** drop-down list. A storage policy is used to configure a set of rules for storing backed up data. It also supports the following functions:

- Pruning the data backed up by Granular Backup and Restore and delete or move the pruned backup data.
- When you add more than one Media services in a storage policy, it supports the automatic failover that causes another Media service in the storage policy to take over the role of the Media service that is down during the backup job.

For more information on working with storage policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

3. **Schedule Selection** – Select a **scheduling** option.

**\*Note:** This field determines the type of backup (Full, Incremental, or Differential) that will be run.

- **No Schedule** – Select this option to configure the job to not run on a schedule (the job must be manually initiated).
- **Select a Predefined Scheme** – Select this option to run the backup on a Predefined Schemes.
- **Configure the schedule myself** – Select this option to configure a customized schedule, and run the backup job by schedule. Click **Add Schedule** to set up a schedule. The **Add Schedule** window appears. In the **Options** section, select a backup type from the drop-down list. For more information, see Overview of Backup Types.
  - **Full Backup** – A full backup of the selected source.
  - **Incremental Backup** – A partial backup; backs up only the data that has been added since the last incremental or full backup.
  - **Differential Backup** – A partial backup; backs up only the data that has been updated since the last full backup.

After configuring the schedule, click **Calendar View** to view the scheduled plans by day, week, or month.

**\*Note:** Frequent consecutive differential backups have a tendency to repeatedly back up the same data, which fills disk space quickly. For best results when conducting high frequency backups, it is recommended to use incremental backups. Incremental backups save time and storage space by backing up only the differences between incremental backups or an incremental backup and a full backup, instead of backing up the entire source location.

4. **Restore Granularity Level** – Select a **granularity** level to restore: **Item**, **Site**, or **Site Collection**.
5. **Filter Policy** – Select a **Filter Policy** to limit the scope of the backup job. For more information on working **with** filter policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

**\*Note:** When using the filter policy for backing up data in SharePoint Online, the **Created By** rule on the **Site** level is not supported. The detailed information will be recorded in the job report.

When you are finished, click **OK and Run Now** to run the job immediately, or click **Advanced** to configure additional options.

6. **Advanced – Configure** the following additional options:

- **User Profile** – Select the **Include user profile** checkbox if you want to back up the user profile with the security.
- **Workflow** – Select how you want to manage the workflow in the source.
  - **Include workflow definition** – Backs up only the definition of existing source workflows.
  - **Include workflow instance** – Backs up the state, history, and tasks of each item. This option is available after selecting **Include workflow definition**.
- **Data Compression** – If you want to enable data compression, you can optionally select the **Compression** checkbox, and then choose a compression level using the slider. A low compression level results in a faster compression rate but a larger data block, while a high compression level results in a slower compression rate but a smaller, better quality data block. Note that small data blocks cause slower backup and additional recovery time. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for compression.
- **Data Encryption** – If you want to enable data encryption, you can optionally select the **Encryption** checkbox. Note that encrypting data causes slower backup and additional recovery time. Select whether to leverage DocAve Media Server (**Media Service**) resources or SharePoint Server (**SharePoint Agent**) resources for encryption. Then, select a security profile or create a new one in the **Security profile** drop-down list. For more information on working with security profiles, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **Agent Group** – Select the agent group for the backup data or create a new agent group from the drop-down list. For more information on working with agent groups, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **Notification** – Select the e-mail notification profile for sending e-mails. For more information on working with notification policies, refer to the [DocAve 6 Control Panel Reference Guide](#).
- **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. Once a plan is added to the plan group, the group's schedule settings will take effect. If **Disable the schedule for each plan and run plans according to the plan group's schedule** is selected and **No Schedule** is configured for the plan group, the plan will have no schedule. For more information on plan groups, refer to the [DocAve 6 Control Panel Reference Guide](#).

7. **Click OK or OK and Run Now** on the lower-right section of the screen. The backup plan is now listed in Plan Manager.

**\*Note:** If you click **OK and Run Now** after you configure a backup plan, or when you select a plan in Plan Manager and run it, a pop-up window will appear for you to set the backup and job report types.

## Elements Unsupported to Be Backed Up in SharePoint 2013

The following elements in SharePoint 2013, including SharePoint objects, settings, data, etc. are not supported to be backed up by Granular Backup and Restore:

Element	Description
Access AppData	Granular Backup and Restore does not support backing up and restoring the Access AppData with the Access App in SharePoint 2013 on-premises environment. Access App has an Access Service database to store its own data. However, DocAve cannot access the database to obtain the app data. Only the Access App can be backed up and restored to the destination.



# Performing a Restore

A granular restore can be performed only on data backed up using DocAve's Granular Backup and Restore. The three restore types are:

- **In place restore** – Restores the selected backed-up data to its original location in SharePoint.
- **Out of place restore** – Restores the data to a location in SharePoint other than the original location.
- **Restore to file system** – Restores the selected backed-up content directly to a file system.

For more information regarding backup and recovery, refer to the Microsoft TechNet article [Backup and recovery best practices \(SharePoint Server 2010\)](#) and [Backup and Restore \(SharePoint 2013\)](#).

## Defining General Settings

Before performing a restore, you may want to define the following general settings: User Mapping, Domain Mapping, and Language Mapping.

### User Mapping

In User Mapping settings, you can create rules that replace (in metadata fields) existing usernames in the source node with existing usernames in the destination node.

To access User Mapping, click the **Restore** tab in Granular Backup and Restore, and then click **User Mapping** on the ribbon. The **Control Panel** page appears.

For specific instructions on setting up user mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

### Domain Mapping

In Domain Mapping settings, you can create rules that replace (in metadata fields) a domain name in the source with a domain name in the destination.

To access Domain Mapping, click the **Restore** tab in Granular Backup and Restore, and then click **Domain Mapping**. The Control Panel page appears.

For specific instructions on setting up domain mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

## Language Mapping

In Language Mapping settings, you can display a destination node in a different language than the source node language.

To access Language Mapping, click the **Restore** tab in Granular Backup and Restore, and then click **Language Mapping**. The Control Panel page appears.

For specific instructions on setting up language mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

## Configuring and Running a Restore

To configure a restore, choose a restore method first to quickly search and select the backed-up data. After the selection, select a restore type to choose the location for restoring the selected data. Then complete other general settings, such as the job report settings, notification settings, and the schedule settings. Follow the instructions in the sections below to select the backed-up data for restore, and then proceed to the applicable section below, depending on the desired restore type for instructions.

### Selecting Backed-up Data to Restore

Two restore methods are provided to select the backed-up data for restoring: **Time-based restore** and **Object-based restore**. Use a **Time-based restore** to select a backup job on the calendar, and then select objects to restore the backed-up data. Use an **Object-based restore** to restore the backed-up data by selecting the specific object and selecting which backup job to restore it from. Refer to the sections below for details.

#### Time-Based Restore

The **Time-based restore** is designed to find the backed-up jobs first, and then select the objects to restore the backed-up data. Complete the following steps to configure a time-based restore:

1. On the **Restore** tab in Granular Backup and Restore, click **Restore** on the ribbon. The **Restore Method** page appears.
2. **Restore Method** – Select the **Time-based restore** radio button, and then click **Next**. The **Job Selection** page appears. You can also click the **Start with Time-based Restore** link on the **Restore** page to access the **Job Selection** page.
3. **Job Selection** – The jobs with all backup types that have been completed within the last month are available in the calendar. Click **Day**, **Week**, or **Month** in the top-right corner of the calendar to change the view to see all available jobs. Click the left and right arrows beside the date on the top-left of the calendar to move forward or backward. Select the backup job that you want to restore. You can also configure settings in the **Set Filter** field to limit the **scope** of the backup job.
  - **Filter by Plan** – Filter the backup job by plan information. You can filter the backup data in the **Filter by Plan** area by farm, plan name, and restore granularity level of the plan by

selecting corresponding checkbox in the drop-down list. The logical relationship between the filter rules is AND. By default, all jobs are displayed.

- **Filter by Job** – Filter the backup job by job information. Select the backup data in the **Filter by Job** area. If you check the **Include job(s) with only partial backup data** checkbox, any backup jobs that are stopped prior to completion are included in the backup. By default, **All Types** is selected.
- **Filter by Time Range** – Filter the backup data by job completed time range. The **All jobs** selection lists all backup jobs whenever the job completed, while **Jobs finished within** filters the backup jobs which are completed in the specified time range. By default, **Jobs finished within This Month** is selected.

After you finish configuring the **Set Filter** drop-down lists, click **Filter**. All the backup jobs that meet the filter rules are listed in the calendar. Click **Reset**, and then the jobs with a Full backup type that have been completed within this month are available in the calendar.

When you are finished, click **Next**. The **Data Selection** page appears.

4. **Data Selection** – For the item restore granularity level, you can configure the **Global Setting for Restoring Content, Property and Security** when you want to only restore the security and/or the property.

**\*Note:** If you configure the global settings, you cannot configure the property and security settings again for each selected object level. If you do not configure the global settings, you can configure the **Property** and **Security** settings for each selected object level when you select objects in the tree at the site collection level and lower (see tables below).

- **Global Setting for Restoring Content, Property and Security** – Define global settings for restoring security and/or property settings:
  - **Container Selection** – Select the **Global setting for container configuration** checkbox to enable the container's global settings.
    - **Restore container** – Select this option to restore the container. Additionally, select the **Security** checkbox if you want to restore the container's security settings, and/or select the **Property** checkbox if you want to restore the container's property settings.
    - **Only restore security** – Select this option to only restore the container's security settings. For the **Specify the user(s)** settings, you can select to restore the security of all users by selecting **All users**, or select to restore the security of the specified users by selecting **Specified user(s)**. For the **Conflict resolution** settings, select how to deal with the conflicts when the users with the same name exist in the destination. **Merge** adds the container's security of the source node to the destination node. **Replace** represents to overwrite the destination container's security by removing the destination security first.

**\*Note:** Only the date backed up by DocAve 6 SP1 or later versions is supported to only restore security.

- **Content Selection** – Select the **Global setting for content configuration** checkbox to enable the content's global settings.
    - **Restore content** – Select this option to restore the content. Additionally, select the **Security** checkbox if you want to restore the content's security settings.
    - **Only restore security** – Select this option to only restore the content security settings. For the **Specify the user(s)** settings, you can select to restore the security of all users by selecting **All users**, or select to restore the security of the specified users by selecting **Specified user(s)**. For the **Conflict resolution** settings, select how to deal with the conflicts when the users with the same name exist in the destination. **Merge** adds the content security of the source node to the destination node. **Replace** represents to overwrite the destination content security by removing the destination security first.
- \*Note:** Only the date backed up by DocAve 6 SP1 or later versions is supported to only restore security.
- **Backup Data** – Select the backed-up data to be restored. There is a checkbox corresponding to each level on the backup tree, which is unchecked by default. Check **Select All** to select all backup data to restore.

**\*Note:** You can browse through the backup data by clicking on objects to navigate through the tree. Click a root site to expand the tree to display folders/lists and content located directly on the top site of the site collection.

- Click **Advanced Search** on the ribbon to filter out specific objects or data within each SharePoint level.

**\*Note:** If you select a Web Application, Site Collection, or a Site to perform a restore, the drop-down list in **Advanced Search** displays **App** besides other levels.

**\*Note:** The search results can display at most 500 nodes of the specific object level. For more information, refer to [Appendix A – Advanced Search](#).

- To restore data at different levels, refer to the following table:

Restore Level	Step
Restoring a site collection	<ol style="list-style-type: none"><li>1. Navigate to the site collection and expand its data tree.</li><li>2. Check the checkbox next to the site collection. All of the site collection contents are selected.</li></ol>
Restoring a site	<ol style="list-style-type: none"><li>1. Navigate to the site.</li></ol>

Restore Level	Step
	2. Check the checkbox next to the site to select the site and its contents.
Restoring a list/library  <b>*Note:</b> The user version of user information lists is not supported.	1. Navigate to the list/library. 2. Check the checkbox next to the list/library to select the list/library and its contents.
Restoring a file/ item	1. Navigate to the root folder of the library/list which contains the file/ item. 2. Click <b>Items</b> . 3. In the pop-up window, check the corresponding checkbox next to the file/item located in the pop-up window.

- If you did not configure the **Global Setting for Restoring Content, Property and Security** fields, you can select whether to also restore the **Security** and **Property** settings by selecting the applicable checkboxes next to any backup level in the tree.

Type	SharePoint Object	Attributes of the SharePoint object that Belong to the Selected Type
Security	Site Collection	Users and groups of the site collection
	Site	Mappings of the users and their permissions, permission levels, groups, users
	List	Mappings of the users and their permissions, users, groups
	Folder/Item/File	Mappings of the users and their permissions, users, groups
Property	Site Collection	Basic information used to create the site collection, other information of the site collection, site features
	Site	Basic information used to create the site, other information of the site, site columns, site content types, navigation, site features, triggers for the users' actions in the site
	List	Basic information used to create the list, other information of the list, list columns, list content types, triggers for the users' actions in the list, alert

When finished, click **Next**. The **Restore Type** page appears. Refer to the Restore Type section to proceed.

## Object-Based Restore

The **Object-based restore** is aimed to first locate the specific SharePoint farm object, and then select which backup job to restore it from. Complete the following steps to configure an object-based restore:

**\*Note:** A standard user in a tenant group cannot use the object-based restore feature. For more information on tenant groups, refer to the [DocAve 6 Control Panel Reference Guide](#).

1. On the **Restore** tab in Granular Backup and Restore, click **Restore** on the ribbon. The **Restore Method** page appears.
2. **Restore Method** – Select the **Object-based Restore** radio button, and then click **Next**. The **Object Search** page appears. You can also click the **Start with Object-based Restore** link on the **Restore** page to access the **Object Search** page.
3. **Object Search** – **Complete** the following configurations:
  - **Restore Object Level** – Select an object level from the **Restore Object Level** drop-down list. The following objects are supported: site collection, site, app, list, library, folder, item, document, and attachment.
  - **Condition** – Select a condition rule and enter the required information in the text box. Select **Equals** to find the object that equals to the entered condition, or select **Matches** to look for the object that contains the entered condition. For different object levels, you must enter different conditions in the text box. Refer to the table below for more information.

Object Level	Condition
Site Collection	Site collection URL
Site	Site title
List	List name
Library	Library name
App	App Title
Folder	Folder name
Item	Item title
Document	Document name
Attachment	Attachment name

- **Backup Time Range** – Select the backup time range to limit the search scope from the **Time range** drop-down list. You can select the backup jobs performed within the current week, the last week, the current month, the last month, or the customized time range.

When finished, click **Next**. The **Data Selection** page appears.

4. **Data Selection** – For the item restore granularity level, you can configure the **Global Setting for Restoring Content, Property and Security** when you want to only restore the security and/or the **property**.

**\*Note:** If you configure the global settings, you cannot configure the property and security settings again for each selected object level. If you do not configure the global settings, you can

configure the **Property** and **Security** settings for each selected object level when you select objects in the tree at the site collection level and lower (see tables below).

- **Global Setting for Restoring Content, Property and Security** – Define global settings for restoring security and/or property settings:
  - **Container Selection** – Select the **Global setting for container configuration** checkbox to enable the container's global settings.
    - **Restore container** – Select this option to restore the container. Additionally, select the **Security** checkbox if you want to restore the container's security settings, and/or select the **Property** checkbox if you want to restore the container's property settings.
    - **Only restore security** – Select this option to only restore the container's security settings. For the **Specify the user(s)** settings, you can select to restore the security of all users by selecting **All users**, or select to restore the security of the specified users by selecting **Specified user(s)**. For the **Conflict resolution** settings, select how to deal with the conflicts when the users with the same name exist in the destination. **Merge** adds the container's security of the source node to the destination node. **Replace** represents to overwrite the destination container's security by removing the destination security first.  
  
**\*Note:** Only the date backed up by DocAve 6 SP1 or later versions is supported to only restore security.
  - **Content Selection** – Select the **Global setting for content configuration** checkbox to enable the content's global settings.
    - **Restore content** – Select this option to restore the content. Additionally, select the **Security** checkbox if you want to restore the content's security settings.
    - **Only restore security** – Select this option to only restore the content security settings. For the **Specify the user(s)** settings, you can select to restore the security of all users by selecting **All users**, or select to restore the security of the specified users by selecting **Specified user(s)**. For the **Conflict resolution** settings, select how to deal with the conflicts when the users with the same name exist in the destination. **Merge** adds the content security of the source node to the destination node. **Replace** represents to overwrite the destination content security by removing the destination security first.  
  
**\*Note:** Only the date backed up by DocAve 6 SP1 or later versions is supported to only restore security.
- **Search Data** – Select the object to be restored by expanding the tree within a specific farm and Web application. The radio button next to the object level is unselected by default. You can also perform the following actions:

- You can click **locate the object in this scope** when it appears next to the SharePoint object to quickly locate the search results.

**\*Note:** The search results can display at most 500 nodes of the specific object level.

- For folder level and higher, click **Jobs** to select which backup job to restore it from. For item, document, and attachment levels, click **Job Selection** to select which backup job to restore it from.
- After finding the object and the backed-up data you want to restore, you can change to the time-based restore mode by clicking the job ID. A tab named by the job ID appears next to the **Search Data** tab. Refer to the Backup Data instructions in step 4 of the Time-Based Restore section to continue.
- If you did not configure the **Global Setting for Restoring Content, Property and Security** fields, you can select whether to also restore the **Security** and **Property** settings by selecting the applicable checkboxes next to any backup level in the tree. When selecting the site level, an **Include Sub-site under it** checkbox appears which is used to include the site within the current selected site. For more information, refer to the table below.

Type	SharePoint Object	Attributes of the SharePoint object that Belong to the Selected Type
Security	Site Collection	Users and groups of the site collection
	Site	Mappings of the users and their permissions, permission levels, groups, users
	List	Mappings of the users and their permissions, users, groups
	Folder/Item/File	Mappings of the users and their permissions, users, groups
Property	Site Collection	Basic information used to create the site collection, other information of the site collection, site features
	Site	Basic information used to create the site, other information of the site, site columns, site content types, navigation, site features, triggers for the users' actions in the site
	List	Basic information used to create the list, other information of the list, list columns, list content types, triggers for the users' actions in the list, alert
	Folder	Properties of the folder, alert
Include sub-site	Site	Sites included in the current selected site



When finished, click **Next**. The **Restore Type** page appears. Refer to Restore Type for proceeding.

## Restore Type

In Place Restore is designed to restore the selected backed-up data to its original location in SharePoint. Out of Place Restore is used to restore the data to a location in SharePoint other than the original location. Restore to File System is aimed to restore the selected backed-up content directly to a file system.

### In Place Restore

To use an in place restore to restore granularly back-up data to its original location in SharePoint, complete the following steps:

1. **Restore Type** – After configuring the restore as described in the previous Time-Based Restore or Object-Based Restore sections, configure the following settings:
  - **Restore Type** – Select the **In place restore** radio button.
  - **Agent Group** – Select an agent group from the drop-down list or create a new agent group. For more information on agent groups, see the [DocAve 6 Control Panel Reference Guide](#).

Click **Next**. The **Restore Settings** page appears.

2. **Restore Settings – Configure** the following settings for the restore:

**\*Note:** Some of the following settings will only appear if you are restoring backup data at the item level. If the backup data is at the site or site collection level, some of these fields will not be available.

- **Conflict Resolution** – Define the conflict resolution behavior. If the SharePoint object name in the source node is the same name as an existing object in the destination node, it is considered a conflict.
  - **Container level conflict resolution** – Set the conflict resolution on the site collection, site, App, list, library, and folder level.
    - **Skip** ignores the source container that has the same name as the destination one.
    - **Merge** combines the configuration of the source and destination container. If there is a conflict, the source overwrites the destination.
    - **Replace** deletes the destination container and then restores the source to the destination. If the selected container is a top-level site, DocAve empties the top-level site instead of deleting it and restores the source to the destination.

**\*Note:** A discussion item in a discussion board list is considered a folder, so it is restored as a container. The replies in this discussion are considered content.

- **Content level conflict resolution** – Set the conflict resolution on the item level.
  - **Skip** ignores the source item/document that has the same item ID/document name as the destination item/document.
  - **Overwrite** copies the source item/document to the destination by overwriting the destination item/document with same item ID/document name.
  - **Overwrite by Last Modified Time** keeps the conflict item\document which has the latest modified time and overwrites the older one.
  - **Append an Item/Document Named with a Suffix** adds the conflict source item/document to the destination and adds a **suffix** to the end of the filename. The conflict destination item/document is not deleted.
  - **Append a New Version** adds the conflict source item/document to the destination as a new version of the conflict destination item/document.

**\*Note:** When the modified time of the conflict contents is the same, you can choose whether to skip content restoration. Refer to [Configuring Resolution for Content with the Same Modified Time](#) for details.

- **Include Apps** – If apps were included in the backup, choose whether or not to restore the App and AppData. If this option is selected, you can configure **Apps Conflict Resolution** settings. Otherwise, **Apps Conflict Resolution** does not appear.
- **Apps Conflict Resolution** – If the App names in the source and destination conflict, you can choose to "**Skip**", "**Update App Only**", or "**Replace App and AppData**" in the destination.
  - **Skip** – No changes will be made; the destination App and AppData will remain unchanged.
  - **Update App Only** – If the App in the source is a more recent version than the destination, it will overwrite the destination App but not the AppData.
  - **Replace App and AppData** – The source App will always replace the destination App and AppData. Even if the source App is an older version, it will replace the destination App.
- **Include Recycle Bin Data** – Choose how to deal with the conflict resolution when the data having the same name exists in the target Recycle Bin. Select **Yes** to deal with the conflict resolution as selected in the **Container level conflict resolution** and **Content level conflict resolution**. Select **No** to ignore the data having the same name in the target Recycle Bin.

**\*Note:** This field only appears for the following situations:

- Select **Skip** in the **Container level conflict resolution** drop-down list.
- Select **Merge** in the **Container level conflict resolution** drop-down list and select **Skip** in the **Content level conflict resolution** drop-down list.

- **Exclude User/Group Without Permission** – Choose whether to exclude the user/group without permission for the plans by selecting **Yes** or **No**. If you select **Yes**, the users/groups that have no permissions will not be restored. **No** is selected by default.
- **Job Report** – Select the job report type. Select **Simplified** to get a list containing the report for the folder and upper-level objects restored to SharePoint, or select **Detailed** to get a full list of all objects restored to SharePoint at the cost of performance.
- **Version Settings** – Select the level of versions you want to restore. Choose **Restore all versions** to restore all of the versions of the backup data, or choose **Restore the latest version(s)** to only restore the latest **Major** or **Major and Minor** versions of the backup data.
- **Workflow** – Decide how to recover SharePoint workflow data. Select **Include workflow definition** to restore the definition of the source workflows to the SharePoint container. Select **Include workflow instance** to restore the state, history, and tasks of each item.
  - **Include completed instance(s)** – This option is mandatory. The completed instances will be restored.
  - **Include running instance(s)** – Select this option to restore the running instances. When selecting this option, continue to set the status of the restored instance, and cancel the workflows or restart the workflows.
- **Item Depended Columns and Content Types** – Choose whether to restore item-dependent columns and content types.

**\*Note:** If you did not select **Property** besides the selected node in the **Data Selection** step, and the dependent column or content type does not exist in the destination, then that column or content type will not be restored. If this is the case, use this option to restore them.

- **Restore the item-dependent columns and content types to maintain item integrity** – The item is restored and the dependent column or content type is created in the corresponding list/library. The item still uses the dependent column and content type. Proceed to select a conflict resolution from the **Conflict resolution for dependent items** list.
- **Do not restore item-dependent columns and content types** – The item dependent columns and dependent content types will not be restored. When selecting this option, make sure the dependent columns and content types exist in the destination. Otherwise, the item cannot be restored.
- **Notification** – Select the e-mail notification profile. For more information on working with notification policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

Click **Next** when you are finished. The **Schedule** page appears.

3. **Schedule – Configure** the schedule to set the time to restore the content:

- **Schedule Selection** – Choose **Restore immediately after wizard finishes** to run the plan immediately, or choose **Configure the schedule myself** to configure a customized schedule
- **Description** – Optionally enter a description of the restore plan in the text box.

Click **Next** to advance to the **Overview** page.

4. **Overview** – Review and edit the plan selections. To make changes, click **Edit** to the right of a heading row to go to the corresponding setting page, allowing you to edit the configuration.

Click **Finish** when you are done. The restore job will start according to your schedule settings.

## Out of Place Restore

To use an out of place restore to restore the backed-up data to another location in SharePoint other than the original location, complete the following steps:

1. **Restore Type** – After configuring the restore as described in the previous Time-Based Restore or Object-Based Restore sections, configure the following settings:

- **Restore Type** – Select the **Out of place restore** radio button.
- **Destination** – Select the destination container by clicking the farm URL to expand the destination data tree, then select the node where you want to restore the source data.

**\*Note:** Make sure that the source node and the destination node are in the same version SharePoint. In addition, if the site collection in the backed up data is a SharePoint 2010 experience version site collection in the SharePoint 2013 farm, the site collection can only be restored to the site collection in the same experience version.

In the text box above the farm names, you can enter characters from a SharePoint object URL or name to search for the desired SharePoint object.

For details, refer to the Restoring a Site or Site Collection to the Target Newly-Created Site Collection section.

- **Agent Group** – Select an agent group from the drop-down list. For more information on agent groups, see the [DocAve 6 Control Panel Reference Guide](#).
- **Action** – If the source data you selected in the **Data Selection** field is at the site or list level, the **Action** field appears after selecting the **Destination** container. Select **Attach** to restore the contents as children beneath the selected node, or select **Merge** to add the contents to the destination node. Click **Preview** to see the impact on the tree structure.
- **Settings** – Select the drop-down lists for **User mapping**, **Domain mapping**, or **Language mapping** to map to an existing user, domain, or language mapping, or create new mappings. For more information on mapping, refer to the [DocAve 6 Control Panel Reference Guide](#).

Click **Next**. The **Restore Settings** page appears.

2. **Restore Settings** – **Configure** the following settings for the restore:

**\*Note:** Some of the following settings will only appear if you are restoring backup data at the item level. If the backup data is at the site or site collection level, some of these fields will not be available.

- **Conflict Resolution** – Define the conflict resolution behavior. If the SharePoint object name in the source node is the same name as an existing object in the destination node, it is considered a conflict.

- **Container level conflict resolution** – Set the conflict resolution on the site collection, site, App, list, library, and folder level.

- **Skip** ignores the source container that has the same name as the destination one.
- **Merge** combines the configuration of the source and destination container. If there is a conflict, the source overwrites the destination.
- **Replace** deletes the destination container and then restores the source to the destination. If the selected container is a top-level site, DocAve empties the top-level site instead of deleting it and restores the source to the destination.

**\*Note:** A discussion item in a discussion board is considered a folder, so it is restored as a container. The replies in this discussion are considered content.

- **Content level conflict resolution** – Set the conflict resolution on the item/document level.

- **Skip** ignores the source item/document that has the same item ID/document name as the destination item/document.
- **Overwrite** copies the source item/document to the destination by overwriting the destination item/document with same item ID/document name.
- **Overwrite by Last Modified Time** keeps the conflict item\document which has the latest modified time and overwrites the older one.
- **Append an Item/Document Named with a Suffix** adds the conflict source item/document to the destination and adds “\_1” to the end of the filename. The conflict destination item/document is not deleted.
- **Append a New Version** adds the conflict source item/document to the destination as a new version of the conflict destination item/document.

**\*Note:** When the modified time of the conflict contents is the same, you can choose whether to skip content restoration. Refer to [Configuring Resolution for Content with the Same Modified Time](#) for details.

- **Include Recycle Bin Data** – Choose how to deal with the conflict resolution when the data having the same name exists in the target Recycle Bin. Select **Yes** to deal with the conflict resolution as selected in the **Container level conflict resolution** and **Content**

**level conflict resolution.** Select **No** to ignore the data having the same name in the target Recycle Bin.

**\*Note:** This field only appears for the following situations:

- Select **Skip** in the **Container level conflict resolution** drop-down list.
  - Select **Merge** in the **Container level conflict resolution** drop-down list and select **Skip** in the **Content level conflict resolution** drop-down list.
- **Include Apps** – If apps were included in the backup, choose whether or not to restore the App and AppData. If this option is selected, you can configure **Apps Conflict Resolution** settings. Otherwise, **Apps Conflict Resolution** does not appear.
- **Apps Conflict Resolution** – If the App names in the source and destination conflict, you can choose to "**Skip**", "**Update App Only**", or "**Replace App and AppData**" in the destination.
  - **Skip** – No changes will be made; the destination App and AppData will remain unchanged.
  - **Update App Only** – If the App in the source is a more recent version than the destination, it will overwrite the destination App but not the AppData.
  - **Replace App and AppData** – The source App will always replace the destination App and AppData. If the source App is an older version, it will still replace the destination App.
- **Exclude User/Group Without Permission** – Choose whether to exclude the user/group without permission for the plans by selecting **Yes** or **No**. If you select **Yes**, the users/groups that have no permissions will not be restored. **No** is selected by default.
- **Job Report** – Select the job report type. Select **Simplified** to create a summary of content restored to SharePoint, or select **Detailed** to get a full list of all objects restored to SharePoint at the cost of performance.
- **Version Settings** – Select the level of versions you want to restore. Choose **Restore all versions** to restore all of the versions of the backup data, or choose **Restore the latest version(s)** to only restore the latest **Major** or **Major and Minor** versions of the backup data.
- **User Profile** – Choose whether or not to restore the user profiles that have been backed up. Select the **Restore user profiles** option to restore the backed up user profiles.
- **Workflow** – Decide how to recover SharePoint workflow data. Select **Include workflow definition** to restore the definition of the source workflows to the SharePoint container. Select **Include workflow instance** to restore the state, history, and tasks of each item.
  - **Include completed instance(s)** – This option is mandatory. The completed instances will be restored.
  - **Include running instance(s)** – Select this option to restore the running instances. When selecting this option, continue to set the status of the restored instance, cancel the workflows or restart the workflows.

- **Item Depended Columns and Content Types** – Choose whether to restore item-dependent columns and content types.

**\*Note:** If you did not select **Property** besides the selected node in the **Data Selection** step, and the dependent column or content type does not exist in the destination, then that column or content type will not be restored. If this is the case, use this option to restore them.

- **Restore the item-dependent columns and content types to maintain item integrity** – The item is restored and the dependent column or content type is created in the corresponding list/library. The item still uses the dependent column and content type. Proceed to select a conflict resolution from the **Conflict resolution for dependent items** list.
- **Do not restore item-dependent columns and content types** – The item dependent columns and dependent content types will not be restored. When selecting this option, make sure the dependent columns and content types exist in the destination. Otherwise, the item cannot be restored.
- **Notification** – Configure the e-mail notification settings by selecting a profile from the drop-down list or creating a new profile. Click **View** to see detailed information about your selected profile.

Click **Next** when you are finished. The **Schedule** page appears.

3. **Schedule – Configure** the schedule to set the time to restore the content:

- **Schedule Selection** – Choose **Restore immediately after wizard finishes** to run the plan immediately, or choose **Configure the schedule myself** to configure a customized schedule
- **Description** – Optionally enter a description of the restore plan in the text box.

Click **Next** to advance to the **Overview** page.

4. **Overview** – Review and edit the plan selections. To make changes, click **Edit** to the right of a heading row on the **Settings** tab to go to the corresponding setting page, allowing you to edit the configuration. In the **Preview** tab, you can view the restore action and the expected farm tree after the restoration, or click **Edit** to go to the Restore Type interface to change the restore action.

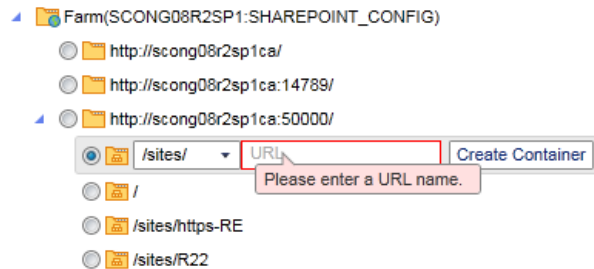
Click **Finish** when you are done. The restore job will start according to your schedule settings.

## Restoring a Site or Site Collection to the Target Newly-Created Site Collection

To restore a site or site collection to the target newly-created site collection, complete the following steps:

1. In the **Data Selection** step of the **Restore Wizard**, select a site or site collection. Click **Next** when you are finished. The **Restore type** page appears.
2. **Restore Type** – Configure the following settings:

- **Restore Type** – Select the **Out of place restore** radio button.
- **Destination** – Click the farm URL to expand the destination data tree to the site collection level of the desired Web application. Select the radio button besides the site collection, and then select the managed path for this newly-created site collection and enter the site collection URL name if required.



**Figure 5:** Select the managed path and enter the URL name.

- Click **Create Container** to the right of the URL text box.
3. On the **Create Container** page, set the site collection settings for the new site collection. Click **OK** when you are finished configuring the site setup. If successful, this newly-created site collection is listed under the specified Web application.
  4. Return to the **Restore Wizard** on the **Restore Type** page and select the new site collection as the destination. Complete the **Restore Wizard** according to the steps in the Out of Place Restore section.

## Restore to File System

Restore to file system is used to restore the backed-up content directly to the file system. The farm, Web application, site collection, site, and list/library levels will be restored as folders in the file system, and the document and attachment will be restored as files. Items cannot be restored. When restoring to a file system, Granular Backup and Restore can write to the Net Share device. To restore to a file system, complete the following steps:

1. **Restore Type** – After configuring the restore as described in the [Configuring and Running a Restore](#) section, configure the following settings:
  - **Restore Type** – Select the **Restore to file system** radio button.
  - **Destination** – Enter the UNC path where you want to restore the backup data in the **Destination** field. Then enter the **Username** (in the domain\username format) and **Password** to set up access to the path that data will be written to and stored. Use the **Validation Test** button to check the specified credentials.
2. **Restore Settings – Configure** the following settings for the restore:
  - **Conflict Resolution** – Define the conflict resolution behavior. If the SharePoint object name in the source node is the same name as an existing object in the destination node, it is considered a conflict.



- **Container level conflict resolution** – Set the conflict resolution on the site collection, site, list, library, and folder level. **Skip** ignores the source container that has the same name as the destination one, and do not restore the source container.
 

**\*Note:** A discussion board item is considered a folder, so it is restored as a container.
- **Content level conflict resolution** – Set the conflict resolution on the attachment/document level.
  - **Skip** ignores the source attachment/document that has the same item attachment/document name as the destination attachment/document.
  - **Overwrite** copies the source attachment/document to the destination by overwriting the destination attachment/document with same item attachment/document name.
- **Job Report** – Select the job report type. Select **Simplified** to create a summary of content restored to SharePoint, or select **Detailed** to get a full list of all objects restored to SharePoint at the cost of performance.
- **Notification** – Select the e-mail notification profile for sending e-mails. For more information on working with notification policies, refer to the [DocAve 6 Control Panel Reference Guide](#).

Click **Next** when you are finished. The **Schedule** page appears.

3. **Schedule – Configure** the schedule to set the time to restore the content:

- **Schedule Selection** – Choose **Restore immediately after wizard finishes** to run the plan immediately, or choose **Configure the schedule myself** to configure a customized schedule.
- **Description** – Optionally enter a description of the restore plan in the text box.

Click **Next** to advance to the **Overview** page.

4. **Overview – Review** and edit the plan selections. To make changes, click **Edit** to the right of a heading row to go to the corresponding setting page, allowing you to edit the configuration.

Click **Finish** when you are done. The restore job will start according to your schedule settings.

## Restoring Data Backed Up by DocAve 5

Granular Backup and Restore allows you to restore data that is backed up by DocAve 5. You must create a logical device including the physical device where the DocAve 5 Granular Backup data is stored. Use this logical device in a DocAve 6 storage policy and then import the backed-up data to DocAve 6. For details on mapping and importing, refer to [DocAve 6 Control Panel Reference Guide](#).

After importing the data to DocAve 6, you can configure and run a restore by following the [Configuring and Running a Restore](#) procedure.

# Checking a Job Status

Granular Backup and Restore contains a Job Monitor button that allows users to view the status of plans within the module. Job Monitor displays all of the backup and restore jobs that the user performed, which is useful for monitoring jobs or troubleshooting errors.

When checking a job status, note the following:

- If the backup data is deleted because of the retention rule settings in Control Panel, the **Indicator Status** column of the backup job will display as **Removed**.
- If the backup data exists, the **Indicator Status** column will be empty.
- If you delete a backup job and the backup data in Job Monitor, the corresponding job report will also be deleted.
- If a job fails, click the **Rerun with Debug Logging** button in Job Monitor to run the job again. After the debug-level job completes, check the **Original Job ID** column to see which job was re-run. If needed, download the job logs to view details and troubleshoot errors accordingly.
- If you select a restore job to view details, **Backup Job ID** is displayed in the **Summary** tab to tell users which backup job was used to perform this restore job.

Refer to the [DocAve 6 Job Monitor Reference Guide](#) for more information.

# End-User Granular Restore

The End-User Granular Restore feature is used in SharePoint and allows end users to restore the backed up SharePoint contents at the library, list, folder, document, item, and attachment levels. The end user must have the required permissions for the backup contents and only the contents backed up by Item restore granularity level can be restored. End users can search the desired contents from the backed up data and perform the restore job using the in place restore type. The job process and detailed information can be viewed in Job Monitor.

## Supported and Unsupported Web Browsers

Before you begin to use the End-User Granular Restore feature, refer to the table below for the supported and unsupported Web browsers:

SharePoint Version	Web Browser	Support Status
SharePoint 2010	Internet Explorer 10	Supported
	Internet Explorer 9	Supported
	Internet Explorer 8	Supported
	Internet Explorer 7	Supported
	Internet Explorer 6	Unsupported
	Google Chrome	Supported
	Mozilla Firefox	Supported
	Apple Safari	Supported with limitations
SharePoint 2013	Internet Explorer 10	Supported
	Internet Explorer 9	Supported
	Internet Explorer 8	Supported
	Internet Explorer 7	Unsupported
	Internet Explorer 6	Unsupported
	Google Chrome	Supported
	Mozilla Firefox	Supported
	Apple Safari	Supported

## Installing the End-User Granular Restore Solution

To use the End-User Granular Restore feature, complete the following steps to deploy the **SP2010EndUserGranularRestore/SP2013EndUserGranularRestore.wsp** solution to the desired farm.

The **SP2010EndUserGranularRestore.wsp** solution is used for SharePoint 2010, and the **SP2013EndUserGranularRestore.wsp** solution is used for SharePoint 2013.

**\*Note:** The End-User Granular Restore feature does not support SharePoint Online and does not support the on-premise site collections that are registered to the SharePoint Sites group.

1. Navigate to **Control Panel > Solution Manager**.

2. Select the farm where you want to deploy the solution from the **Farm** drop-down list.
3. Select the **SP2010EndUserGranularRestore.wsp/SP2013EndUserGranularRestore.wsp** solution according to the farm you selected.
4. Click **Install** in the **Actions** group to install this solution.
5. After the solution is installed, click **Deploy** in the **Actions** group to deploy the solution to the selected SharePoint farm.

For more information of managing solutions, refer to the [DocAve 6 Control Panel Reference Guide](#).

## Activating the End-User Granular Restore Feature

To use the End-User Granular Restore feature, complete the following steps to activate the feature in the desired site collections in both DocAve Manager and SharePoint after the solution is deployed to the desired farms.

1. In DocAve Manager, navigate to **Granular Backup and Restore > Restore > End-User Granular Restore**.
2. Expand the tree to the site collection level. Select the site collections that you want to activate the End-User Granular Restore feature. You can also select the farm node or the Web application node to select all included site collections.
3. Click **Activate** on the ribbon to activate the feature in the selected site collections. You can also click **Activate** next to each site collection to activate the feature one by one.

The site collection status of activating the End-User Granular Restore feature is displayed in the **Status** column.

4. Access the site collection in SharePoint that the End-User Granular Restore feature is activated on in DocAve.
5. Manage the site collections features according to your SharePoint version.
  - When using SharePoint 2010, navigate to **Site Actions > Site Settings > Site Collection Administration > Site collection features**.
  - When using SharePoint 2013, click the settings (⚙) button on the upper-right corner and navigate to **Site settings > Site Collection Administration > Site collection features**.
6. Activate the **End-User Granular Restore for SharePoint 2010/End-User Granular Restore for SharePoint 2013** feature. After the activation, you can find the **Restore from Backup** link under the **Site Actions** drop-down list (in SharePoint 2010) or under the drop-down list after clicking the settings (⚙) button (in SharePoint 2013).

# Configuring the End-User Granular Restore Settings

Before the end user proceeds with an End-User Granular Restore, complete the following steps to configure the settings:

1. Select the site collections by selecting the checkboxes next to the relative URL.
2. Click **Advanced Settings** on the ribbon to configure the settings for the selected site collections. You can also click **Advanced Settings** next to each site collection to configure the settings one by one.
  - a. **Verify GUID** – When an object in the backup data having the same name exists in the destination, you can select how to deal with this situation:
    - Select the **Verify object GUID in backup data** option to compare the object GUID in the backup data with the object GUID in the destination. If the GUIDs are not the same, the object in the backup data will not be restored.
    - Deselect this option to not compare the GUID. The object in the backup data will be restored.

- b. **Permission Level** – Select the required minimum permission level for the end-user restore: **Full Control**, **Design**, or **Contribute**. Only if the end user has the selected permission level or higher to the desired SharePoint content, he/she can search out the content from the backup data. If the end user does not have the required permission level to the desired SharePoint content, he/she cannot search out the content or perform the restore job.

If a site collection has **Read-only (blocks additions, updates, and deletions)** selected in the **Lock status for this site** settings (**SharePoint Central Administration > Site Collection Quotas and Locks > Site Lock Information**), the end-user can only view the site content and does not have **Full Control**, **Design**, or **Contribute** permission level. Therefore, the end-user cannot perform a search or restore operations at the selected site collection.

- c. **Conflict Resolution** – Define the conflict resolution behavior. When restoring, if the SharePoint object name in the source node is the same as an existing object in the destination node, it is considered a conflict.
    - **Container level conflict resolution** – Set the conflict resolution on the list, library, and folder level.
      - **Skip** ignores the source container that has the same name as the destination one.
      - **Merge** combines the configuration of the source and destination container. If there is a conflict, the source configuration overwrites the destination one.

- **Replace** deletes the destination container and then restores the source container to the destination.


**\*Note:** A discussion board item is considered a folder, so it is restored as a container.

- **Content level conflict resolution** – Set the conflict resolution on the item, document, attachment level.
  - **Skip** ignores the source item/document/attachment that has the same item ID/document name/attachment name as the destination item/document/attachment.
  - **Overwrite** copies the source item/document/attachment to the destination by overwriting the destination item/document/attachment with same item ID/document name/attachment name.
  - **Overwrite by Last Modified Time** keeps the conflict item/document/attachment which has the latest modified time and overwrites the older one.
  - **Append an Item/Document Name with a Suffix** adds the conflict source item/document/attachment to the destination and adds a suffix to the end of the item title/document name/attachment name. The conflict destination item/document/attachment is not deleted.
  - **Append a New Version** adds the conflict source item/document to the destination as a new version of the conflict destination item/document.
- d. **Temp Location** –Stores temporary data when your users download backup data in SharePoint. You can choose to **Use default temp location** or **Use customized temp location**. If the default temp location has limited space, customizing a temp location is strongly recommended to guarantee a successful download. If you skip this setting, the parent node's temp location settings will be inherited.

3. Click **OK** to save the settings. You can also click **Cancel** to cancel the settings.

## Using the End-User Granular Restore Feature

To perform an End-User Granular Restore job, an end user should complete the following steps:

1. Access the site collection with the required permission.
2. Launch End-User Granular Restore according to your SharePoint version.
  - When using SharePoint 2010, navigate to **Site Actions > Restore from Backup**. The **Restore from Backup** page appears.
  - When using SharePoint 2013, click the settings () button on the top right corner and click **Restore from Backup**. The **Restore from Backup** page appears.

On the page, the left pane in SharePoint 2010 or the upper pane in SharePoint 2013 is used to configure the search conditions and perform the search. The right pane in SharePoint 2010 or the bottom pane in SharePoint 2013 is used to select the desired contents from the search results and perform the restore or download operation.

The End-User Granular Restore feature does not support searching or restoring backup data of **My Registered Sites**, including the Site Collections registered in SharePoint Online and local farms.

3. Configure the search conditions:

- **Restore object level** – Select the level of the objects that you want to restore.
  - **Keyword** – Search the desired contents by the keywords. The object name/title containing the keyword will be searched out.
- \*Note:** The search function is not case sensitive. The wildcards ? and \* are supported. View the table below for details of what to search when entering the keyword.

Object Level	What to Search
List	List name
Library	Library name
Folder	Folder name
Item	Item title
Document	Document name and/or the extension
Attachment	Attachment name

- **Backup Time** – Search the contents within the selected time range:
    - **This Week** – Search the contents backed up within this week.
    - **This Month** – Search the contents backed up within this month.
    - **Custom** – Search the contents backed up within the customized time range. Click the calendar to select the date and time.
4. Click **Search** to start searching the contents that match the search conditions. You can also click **Reset** to reset the search conditions. The search results are displayed on the right pane.
- \*Note:** If the number of the search results exceeds the maximum limit of 500, a pop-up message appears to remind users to try the search again with more specific keywords.
5. On the **Search Result** pane, view the following information:
- **Object Name** – The name of the objects that matches the search conditions. Hover over the object name and click the arrow ▼ that appears to view the backup history.
  - **Backup Time** – The time when the objects are backed up. Click the time to view the backup history of this object.
  - **Path** – The URL of the objects in the source.

6. Select the desired objects by selecting the checkboxes next to the object names.
7. Select the checkbox ahead of the object to perform the following actions, or hover over the object name, select the triangle ( ▼ ) button, and then perform the following actions by clicking one of the corresponding options:

- Click **Restore** to restore the latest version of the object.
- Click **View Backup History** to view the version and select the version that you want to restore.
- Click **Download** to open or save the selected object.

**\*Note:** Currently, only attachments and documents can be downloaded. You cannot download a library, item, or list.

You can also perform the restore and download actions by clicking the **Restore** and **Download** buttons above the pane.

- **Restore:** This allows you to select multiple files to restore in bulk.
  - **Download:** This allows you to select multiple files to download in bulk. However, if the selected file is a stub or system file, or the download operation fails or completes with exception, an error message will notify you that all or some of the selected files failed to download. Click the job report link provided after the message to view the detailed information. The report lists the document URL, job status, and a detailed job result description.
8. After you click **Restore**, a pop-up window appears asking you to configure the e-mail notification. The entered users will receive e-mail notifications about the restore job results. Use a semicolon (;) to separate multiple e-mail addresses. The send e-mail settings configured in DocAve will be used as a first priority. If the settings are not configured in DocAve, ensure that **Outgoing E-mail** in **General Settings** is configured in SharePoint.
- \*Note:** This e-mail notification setting is optional, and you can skip it by clicking **OK** directly.
9. Click **OK** when you are finished. A pop-up window appears indicating that the restore job is running.
  10. The restore job result is displayed in the pop-up window after the job completes. Click **OK** to close the pop-up window. You can also close the pop-up window during the restore process, which does not affect the restore job.

**\*Note:** Click **Powered by AvePoint DocAve** on the **End-User Granular Restore** page. It will link to the [AvePoint](#) homepage in a new Web window.



# Additional Optional Configurations

Refer to the sections below regarding additional optional configurations in Granular Backup and Restore.

## Predefined Schemes

In order to run the backup job on a schedule, you must first configure a predefined scheme. In the Predefined Scheme window you can view the default Weekly Scheme and the Monthly Scheme. Use these two default schemes or create a new scheme as required. To set up a new predefined scheme, complete the following steps:

1. Select the **Backup** tab in the Granular Backup and Restore user interface, and then click **Predefined Scheme** on the ribbon. The **Predefined Scheme** window appears.
2. Click **Create** in the **Manage** group on the ribbon.
3. **Name** – Enter a name into the **Predefined Scheme** text box, and add an optional Description.
4. **Schedule Settings** – Click **Add Schedule** to set up a schedule. The **Add Schedule** tab appears.
5. **Options** – Select a backup **type** from the drop-down list. For more information, refer to the Overview of Backup Types section.
  - **Full Backup** – A full backup of the selected source.
  - **Incremental Backup** – A partial backup; backs up only the data that has been added since the last backup (whether it's full, incremental, or differential).
  - **Differential Backup** – A partial backup; backs up only the data that has been updated since the last full backup.

**\*Note:** Frequent consecutive differential backups have a tendency to repeatedly back up the same data, which fills disk space quickly. For best results when conducting high frequency backups, it is recommended that you use incremental backups. Incremental backups save time and storage space by backing up only the differences between incremental backups or an incremental backup and a full backup, instead of backing up the entire source location.
6. **Type** – Select the interval at which the backup occurs: **By hour**, **By day**, **By week**, or **By month**.
7. **Schedule Settings** – Set up the frequency for the scheduled backup job. If you select the type as **By hour**, **By week**, or **By month**, you will have the option to check the **Advanced** checkbox to configure more settings for the frequency. For more information, see the [Advanced Predefined Scheme Settings](#) section below.
8. **Range of Recurrence** – Choose one of the following options to configure when to start and stop running the recurring schedule:
  - **No end date** – The job is run on schedule all of the time.
  - **End after ... occurrence(s)** – The job stops running after running the entered times.

- **End by** – The job ends by the date you select.

## Advanced Predefined Scheme Settings

The following advanced settings are available for configuring a predefined scheme:

### By Hour

- **Specify production time: From ... to ...** – Run the backup job on the selected production time.
- **Select time below** – Select the time you want to run the backup job. To add several run job time, click **Add**.

### By Week

**Run every ... week(s); On ...** – Select the days of the week to run the plan on, and enter after how many weeks to recur.

### By Month

- **On day ... of ...** – Select the day and the month to run the backup job. For example, set this option as **On day 3 of January**, and the backup is run on 3rd January.
- **Day ... of every ...month(s)** – Select the day and the month interval to run the backup job. For example, set this option as **Day 3 of every 2 months**, and the backup is run on the 3rd day of every two months.
- **The ... of every ... month(s)** – Select the time and the interval for the backup job. For example, set this option as **The First Monday of every 3 months**, and the backup is run on the first Monday every 3 months.
- **The ... of ...** – Select the day and the month for the backup job. For example, set this option as **The First Monday of January**, and the backup is run on the first Monday of January.

## Outgoing E-mail Server Settings

Granular Backup and Restore allows you to configure outgoing e-mail for DocAve 6. Configuring outgoing e-mail enables you to track the status of services or jobs. This is done through the Control Panel.

For instructions on outgoing e-mail settings, refer to the [DocAve 6 Control Panel Reference Guide](#).

# DocAve Granular Backup and Restore Use Case

The following use case applies the procedures described in this guide to a real-world situation. These use cases are intended to give the user an idea of when and why one would use common DocAve Granular Backup and Restore functionality. Note that these situations assume that the DocAve platform and applicable modules have been installed successfully, and that the prerequisite conditions are met (appropriate permissions for the Agent account, creation of logical devices, etc.).

## Configuring a Successful Backup Plan

As the head of IT, Joe is responsible for backing up his company's SharePoint content. Traditionally, his company would perform weekly backups of all SharePoint content using SharePoint's native backup functionality (through SQL server). In addition to extremely long backup windows, the backups led to enormous storage requirements, as each full backup was almost a full terabyte of data. Further, the company's RPO and RTO were unacceptably long. This backup process soon became extremely expensive for the company and impractical for Joe to manage. Joe's solution is to implement the DocAve platform – specifically, the Granular Backup and Restore module – into the company's backup process.

Once the Granular Backup and Restore module is installed, Joe gets to work on configuring the backup plan. He first sets up storage policies (see [Configuring Devices and Setting Up Storage Policies](#)). Then, from within the Granular Backup and Restore user interface, Joe selects the Farms and Nodes as the content he wants to back up (see [Selecting Farms and Nodes](#)). Being new to DocAve's products, he chooses to develop a backup plan using [Using Wizard Mode](#) in [Using the Plan Builder](#). Now Joe has to make a few important decisions: What kind of backup should he schedule? What should the restore granularity level be? How often should he schedule backups, and what time of day should they run? Should he compress the data?

Like many DocAve users, Joe chooses to run Overview of Backup Types, backing up only the data that change between backup intervals. He chooses Incremental backups because they produce relatively small backup files, which make storage less expensive and recovery of lost data a quicker process. Joe selects the Item granularity level because many departments update important documents on SharePoint on a daily basis, and Joe wants the ability to restore only one item if needed. He decides to schedule these backups to run nightly during off-production hours so that the majority of network resources can be dedicated to running the backup, thereby reducing the backup window even further. Note that Joe could have decided to run the backups during production hours; he just would have had to employ a lightweight backup methodology (such as a low compression rate for quicker backup and/or site collection or site restore granularity, which reduce backup time but at the expense of item granularity).

Joe's decisions helped improve upon his company's backup processes. By choosing to run Incremental backups, he is able to drastically reduce the required backup storage space and, in combination with scheduling the backups to run during off-production hours, he is able to reduce the backup window. By

choosing item granularity restore, Joe ensures the lowest impact to the business in the event that he must recover lost or corrupt content.

## Appendix A – Advanced Search

Advanced Search provides a quick method to locate specific objects or data within each SharePoint level (from site collection level down to item level) to restore. You can use Advanced Search in the Time-based Restore method.

1. On the **Time-based Restore** tab within the **Data Selection** step of the **Restore Wizard**, select the object level as the search scope by clicking the object name in the data tree.
  - In the **Search** group on the ribbon, click **Advanced Search**. The **Advanced Search** page appears.
  - The SharePoint object levels that equals or lower than the ones you select in the backup tree are listed in the **Level** drop-down list. The value supports wildcard (\*). Using Advanced Search, you can search:

Level	Rule	Condition	Value	Result
Site Collection	URL	Matches	sitecollection	Searches for the site collection whose URL matches <b>sitecollection</b> .
		Equals	http://test:20000/sites/sitecollectionA	Searches for the site collection whose URL equals http://test:20000/sites/sitecollectionA.
Site	URL	Matches	siteA	Searches for the site whose URL matches <b>siteA</b> .
		Equals	http://test:20000/sites/sitecollectionA/siteA	Searches for the site whose URL equals http://test:20000/sites/sitecollectionA/siteA.
	Site Title	Matches	A	Searches for the site whose title matches <b>A</b> .
		Equals	siteA	Searches for the site whose title equals <b>siteA</b> .
List	Name	Matches	A	Searches for the list whose name matches <b>A</b> .
		Equals	listA	Searches for the list whose name equals <b>listA</b> .
App	Title	Matches	A	Searches for the App whose title matches <b>A</b> .
		Equals	AppA	Searches for the App whose title equals <b>AppA</b> .
Folder	Name	Matches	A	Searches for the folder whose name matches <b>A</b> .
		Equals	folderA	Searches for the folder whose name equals <b>folderA</b> .
Item	Title	Matches	A	Searches for the item whose title matches <b>A</b> .

Level	Rule	Condition	Value	Result
	Attribute	Equals	itemA	Searches for the item whose title equals <b>itemA</b> .
		Matches	A	Searches for the item whose attribute matches <b>A</b> .
		Equals	userA	Searches for the item that has an attribute: <b>userA</b> .
Document	Document Name and Extension	Matches	A	Searches for the documents whose document name and extension match <b>A</b> .
		Equals	fileA.doc	Searches for the documents whose document name and extension equal <b>fileA.doc</b> .
	Attribute	Matches	A	Searches for the document whose attribute matches <b>A</b> .
		Equals	userA	Searches for documents that has an attribute: <b>userA</b> .
Attachment	Document Name and Extension	Matches	A	Searches for the attachment whose document name and extension match <b>A</b> .
		Equals	attachmentA.doc	Searches for the attachment whose document name and extension equal <b>attachmentA.doc</b> .

- Click **Add** to add a new filter condition. Change the logical relationship between the filter rules by clicking the logic icon after the rule. There are two logics now: **And** and **Or**. The default logic is **And**.
  - And** – The content that meets all of the rules is searched out.
  - Or** – The content that meets one of the rules is searched out.
- 2. Under the **Basic Filter Conditions** tab, view the search rules logical relationship.
  - Click **Search** to execute the search operation. The search results display under the Search Result tab. View the search results in **Tree View** or **List View** by clicking the corresponding icons under the **Search Result** tab.

## Appendix B – Supported and Unsupported Web Parts

The following table lists the Web parts that are supported/unsupported to be backed up/restored by Granular Backup and Restore.

	Web Part	Support Status
Business Data	Business Data Actions	Partially Supported <b>*Note:</b> The backup and restore of the Web part common settings are supported. Other settings are not tested.
	Business Data Connectivity Filter	
	Business Data Item	
	Business Data Item Builder	
	Business Data List	
	Chart Web Part	Supported
	Excel Web Access	Supported
	Indicator Details	Supported
	Status List	Supported
	Visio Web Access	Supported
Content Rollup	Categories	Supported
	Content Query	Supported
	Relevant Documents	Supported
	RSS Viewer	Supported
	Site Aggregator	Supported
	Sites in Category	Supported
	Summary Links	Supported
	Table Of Contents	Supported
	Web Analytics Web Part	Partially Supported <b>*Note:</b> The backup and restore of the Web part common settings are supported. Other settings are not tested.
	WSRP Viewer	Partially Supported <b>*Note:</b> The backup and restore of the Web part common settings are supported. Other settings are not tested.
Filters	XML Viewer	Supported
	Apply Filters Button	Supported
	Choice Filter	Supported
	Current User Filter	Supported
	Date Filter	Supported
	Page Filed Filter	Supported
	Query String(URL) Filter	Supported
	SharePoint List Filter	Supported

	Web Part	Support Status
	Text Filter	Supported
Forms	HTML Form Web Part	Supported
	InfoPath Form Web Part	Supported
Media and Content	Content Editor	Supported
	Image Viewer	Supported
	Media Web Part	Supported
	Page Viewer	Supported
	Picture Lib Slideshow Web Part	Supported
Outlook Web App	My Calendar	Supported
	My contacts	Supported
	My Inbox	Supported
	My Mail Folder	Supported
	My Tasks	Supported
Social Collaboration	Contact Details	Supported <b>*Note:</b> The related user information of this Web part is also backed up.
	Note Board	Supported
	Organization Browser	Supported
	Site Users	Supported
	Tag Cloud	Supported
	User Tasks	Supported



## Appendix C – Supported and Unsupported Features for SharePoint Online

The following table lists the supported and unsupported features for SharePoint Online in Granular Backup and Restore.

### Backup

The following table provides a list of supported and unsupported features when performing a backup job for SharePoint Online.

Functionality Name		Support Status
Ad Hoc Backup		Supported
Plan Builder	Wizard Mode	Supported
	Form Mode	Supported
Tree Mode		Supported
Storage Policy		Supported
Filter Policy		Supported
Apps		Partially Supported <b>*Note:</b> The Provider-Host Apps and the Auto-Host Apps are not fully tested.
Predefined Scheme		Supported
Schedule Selection	No Schedule	Supported
	Select a predefined scheme	Supported
	Configure the schedule myself	Supported
Restore Granularity Level	Item	Supported
	Site	Unsupported
	Site Collection	Unsupported
User Profile		Partially Supported <b>*Note:</b> Some properties are not supported.
Workflow	Definition	Supported
	Instance	Unsupported
Data Compression	SharePoint Agent	Supported
	Media Service	Supported
Data Encryption	SharePoint Agent	Supported
	Media Service	Supported
Security Profile		Supported
Agent Group		Supported
Notification		Supported
Associated Plan Group		Supported
Backup Type	Full	Supported

Functionality Name		Support Status
	Incremental	Supported
	Differential	Supported
Job Report	Simplified	Supported
	Details	Supported

## Restore

The following table provides a list of supported and unsupported features when performing a restore job for SharePoint Online.

Functionality Name				Support Status	
Restore Method	Time-based restore	Filter by	Plan Filter	Supported	
			Job Filter		
			Time Range		
		Displaying backup jobs in the Calendar view			Supported
		Advanced Search	Site Collection	Supported	
			Site		
			App		
			List		
			Folder		
			Item		
			Attachment		
			Document		
	Object-based restore	Restore Object Level	Site Collection	Supported	
			Site		
			App		
			List		
			Folder		
			Item		
			Attachment		
			Document		
		Condition	Equals	Supported	
			Matches		
		Time Range			Supported
		Locate			Supported
Restore Settings	Restore Type	In place restore	Supported		
		Out of place restore	Supported		
		Restore to file system	Supported		
	User Mapping	Normal user mapping	Supported		
		Add a default destination user	Supported		
		Add a place holder account to keep metadata even if the user no longer exists	Unsupported		
	Domain Mapping			Supported	
	Language Mapping			Unsupported	

Functionality Name			Support Status
	Restore Action	Attach source site to destination site	Supported
		Attach source site to destination site collection	Supported
		Attach source list to destination site	Supported
		Merge source list to destination site	Supported
		Preview	Supported
	Conflict Resolution	Container level conflict resolution	Supported
		Content level conflict resolution	Supported
	Include Recycle Bin Data		Unsupported
	Exclude User/Group Without Permission		Unsupported
	Item Depended Columns and Content Types	Restore the item-dependent columns and content types to maintain item integrity	Supported
		Do not restore item-dependent columns and content types	Supported
	Global Setting for Restoring Content, Property and Security	Global setting for container configuration	Supported
		Global setting for content configuration	Supported
	Security		Supported
	Property		Supported
	Notification		Supported
	Job Report	Simplified	Supported
		Detailed	Supported
	User Profile		Partially Supported <b>*Note:</b> Some properties are not supported.
	Apps		Supported
	Apps Conflict Resolution	Skip	Supported
		Update App Only	Unsupported
		Replace App and AppData	Supported
	Workflow	Definition	Supported
		Instance	Unsupported
	Version Settings	Restore all versions	Supported
		Restore the latest versions	Supported
	Schedule	Restore immediately after the wizard finishes	Supported
		Configure the schedule myself	Supported

## Plan Manager

The following table provides a list of supported and unsupported features in Plan Manager.

Functionality Name	Support Status
View Details	Supported
Edit	Supported
Delete	Supported
Plan Group	Supported
Test Run	Supported
Run Now	Supported

**\*Note:** Granular Backup and Restore for SharePoint Online supports backing up or restoring the Apps for SharePoint. However, there are some limitations for the Apps that are not added from SharePoint App Store:

- Because of the Client API limitation, DocAve cannot obtain the App stream stored in the Microsoft server database. Therefore, DocAve cannot automatically create an App definition in the destination **App Catalog Site Collection**.
  - When backing up the App definition, DocAve cannot back up all of the App definition's installation components. Instead, DocAve obtains and backs up some properties, such as the **Product ID**, **Product Version**, and so on.
  - An App definition that is the same as the source one must exist in the destination **App Catalog Site Collection** so that DocAve can restore the source App and AppData normally.
- Make sure that the user who registered all of the site collections under the **My Registered Sites** node in the tree has the **Read** or above permission to the **Apps for SharePoint** library in the **App Catalog Site Collection**. Otherwise, DocAve cannot load the **Apps** node in the tree.

Due to the limitations mentioned above, the **Update App Only** in **Apps Conflict Resolution** setting is not currently supported. If you select the **Update App Only** in **Apps Conflict Resolution** setting, the job will directly skip.

## Appendix D – Accessing Hot Key Mode

In order to work faster and improve your productivity, DocAve supports hot key mode for you to perform corresponding actions quickly by only using your keyboard. To access hot key mode from the Granular Backup and Restore interface, press the key combination of **Ctrl + Alt + Z** on your keyboard.

The following table provides a list of hot keys at the top level. Each time you want to go back to the top level after accessing the interface of the lower level, press **Ctrl + Alt + Z** on the keyboard. For example, continue pressing **B** to jump to the **Backup** page of Granular Backup and Restore.

Operation Interface	Hot Key
Backup	B
Restore	R
Plan Manager	P
DocAve Home Page	1
DocAve Online Community	2
Control Panel	3
Job Monitor	4
Plan Group	5
Health Analyzer	6

### Backup Page

To access the Backup page by using hot keys in the Granular Backup and Restore interface, press the **Ctrl + Alt + Z** key combination, and then press **B** on the keyboard.

The following table provides a list of hot keys for the functionalities on the ribbon of the Backup page. For example, continue pressing **A** to jump to the **Ad Hoc Backup** interface.

Functionality Name and Hot Key					
Ad Hoc Backup	A	Ad Hoc Backup	A	Run Now	R
				Cancel	C
		Default Settings	D	OK	O
				Cancel	C
Plan Builder	P	Wizard Mode	W	Back	B
				Next	N
				Finish	F
				Cancel	C
		Form Mode	F	OK	O
				Cancel	C
Storage Policy	S				
Filter Policy	F				

Functionality Name and Hot Key										
Predefined Scheme	H	Create	N		OK		O			
					Back		B			
		Edit	E	Save	S	Save		S		
						Save As		A		
				Cancel	C					
		View	V	Edit	E	Save	S	Save		S
								Save As		A
								Cancel		C
							Cancel	C		
		Delete	D							
Close	X									
Job Monitor	J									

## Restore Page

To access the Restore page by using hot keys in the Granular Backup and Restore interface, press the **Ctrl + Alt + Z** key combination, and then press **R** on the keyboard.

The following table provides a list of hot keys for the functionalities on the ribbon of the Restore page. For example, continue pressing **D** to jump to the **Domain Mapping** interface.

Functionality Name and Hot Key	
Restore	R
Domain Mapping	D
User Mapping	U
Language Mapping	L
Job Monitor	J
End-User Granular Restore	E

## Restore Wizard

Functionality Name and Hot Key					
Restore	R	Create Container	CC	OK	O
				Cancel	C
		Advanced Search	A	Search	S
				Cancel	C
		Locate	L		
		Back	B		
		Next	N		
		Finish	FN		
		Cancel	CX		

## End-User Granular Restore

Functionality Name and Hot Key					
End-User Granular Restore	E	Advanced Settings	AD	Save	O
				Cancel	C
		Activate	AC		
		Deactivate	D		
		Close	C		

## Plan Manager Page

To access the Plan Manager page by using hot keys in the Granular Backup and Restore interface, press the **Ctrl + Alt + Z** key combination, and then press **P** on the keyboard.

The following table provides a list of hot keys for the functionalities on the ribbon of the Plan Manager page. For example, continue pressing **V** to jump to the **View Details** interface.

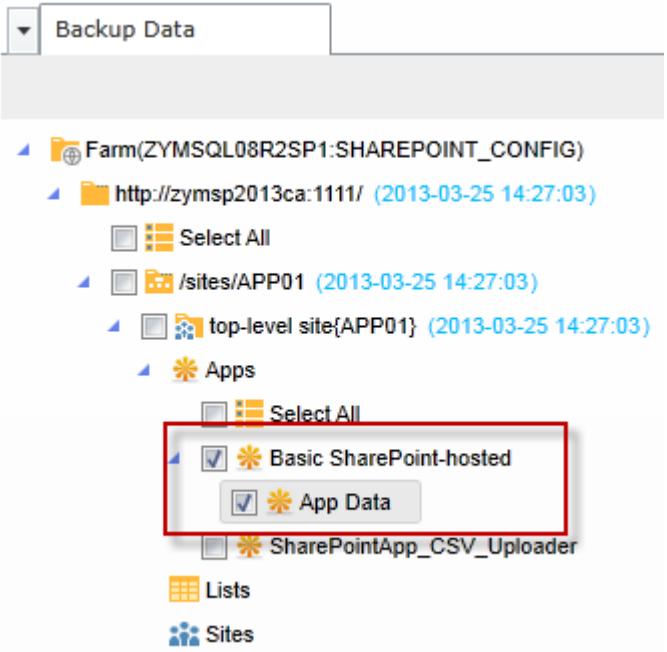
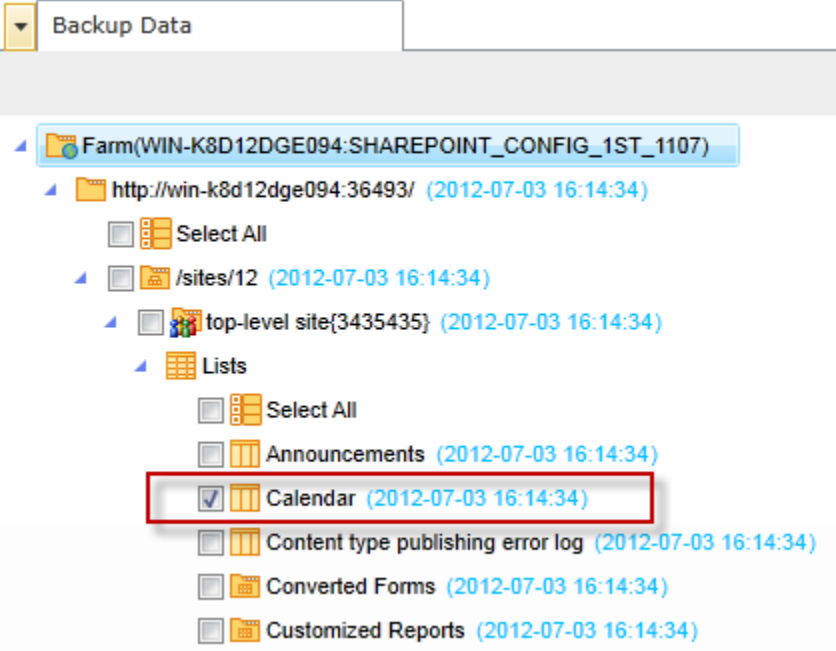
Functionality Name and Hot Key							
View Details	V	Edit	E	Save	S	Save and Run Now	R
						Save	S
						Save As	A
			Cancel	C			
		Test Run	T				
		Run Now	R				
	Close	C					
Edit	E	Save	S	Save and Run Now		R	
				Save		S	
				Save As		A	
			Cancel	C			
Delete	D						
Test Run	T	OK	O				
		Cancel	C				
Run Now	R	OK	O				
		Cancel	C				



# Appendix E – Customization Support Table

✓ means the restore is **Supported** at this level and a blank area means the restore is **Not Supported** at this level.

Restore Level/ What to Restore	Restore with Selected Granularity			Note	What to Select When Restoring
	Site Collection Level	Site Level	Item Level		
Site Collections	✓	✓	✓		
Sites		✓	✓		

Restore Level/ What to Restore	Restore with Selected Granularity			Note	What to Select When Restoring
	Site Collection Level	Site Level	Item Level		
Apps			√	<ul style="list-style-type: none"><li>• To restore the App site, select the node named by the App.</li><li>• To restore the AppData, select the App site and AppData nodes.</li><li>• Due to the SharePoint limitation, you cannot use the SharePoint <b>System Account</b> as the Agent account to restore the App-related data.</li><li>• DocAve supports to back up and restore the SharePoint-hosted Apps. The provider-hosted and auto-hosted Apps are not supported.</li></ul>	
Lists			√		

Restore Level/ What to Restore	Restore with Selected Granularity			Note	What to Select When Restoring
	Site Collection Level	Site Level	Item Level		
Libraries			√		<div><div>Backup Data</div><div><div>Farm(WIN-K8D12DGE094:SHAREPOINT_CONFIG_1ST_1107)</div><div><div>http://win-k8d12dge094:36493/ (2012-07-03 11:48:20)</div><div>Select All</div><div><div>/sites/12 (2012-07-03 11:48:20)</div><div><div>top-level site{3435435} (2012-07-03 11:48:20)</div><div>Lists</div><div>Select All</div><div>Reporting Templates (2012-07-03 11:48:20)</div><div><input checked="" type="checkbox"/> Shared Documents (2012-07-03 11:48:20)</div><div>Site Assets (2012-07-03 11:48:20)</div><div>Site Pages (2012-07-03 11:48:20)</div></div></div></div></div></div>
Folders			√		<div><div>Backup Data</div><div><div>Farm(WIN-K8D12DGE094:SHAREPOINT_CONFIG_1ST_1107)</div><div><div>http://win-k8d12dge094:36493/ (2012-07-03 16:14:34)</div><div>Select All</div><div><div>/sites/12 (2012-07-03 16:14:34)</div><div><div>top-level site{3435435} (2012-07-03 16:14:34)</div><div>Lists</div><div>Select All</div><div>Reporting Templates (2012-07-03 16:14:34)</div><div><div>Shared Documents (2012-07-03 16:14:34)</div><div><div>Root Folder</div><div>Folders</div><div>Select All</div><div>Forms (2012-07-03 16:14:34)</div><div><input checked="" type="checkbox"/> aaa (2012-07-03 16:14:34)</div></div></div><div>Items</div><div>Site Assets (2012-07-03 16:14:34)</div><div>Site Pages (2012-07-03 16:14:34)</div></div></div></div></div></div>

Restore Level/ What to Restore	Restore with Selected Granularity			Note	What to Select When Restoring																
	Site Collection Level	Site Level	Item Level																		
Items, Documents, and Attachments			√		<div><div>Item Browser for Tasks</div><div>Select the object(s) to be restored under this node.</div><table><tr><td><input type="checkbox"/></td><td>ID</td><td>File Name</td><td>File Attribute</td></tr><tr><td><input type="checkbox"/></td><td>6575db96-b7</td><td>1_.000</td><td>Title:asd</td></tr><tr><td><input type="checkbox"/></td><td>b292ee10-c7</td><td>1_.000:2.JPG</td><td>Title:2.JPG</td></tr><tr><td><input type="checkbox"/></td><td>7302b536-43</td><td>2_.000</td><td>Title:Disposition approval:...</td></tr></table></div>	<input type="checkbox"/>	ID	File Name	File Attribute	<input type="checkbox"/>	6575db96-b7	1_.000	Title:asd	<input type="checkbox"/>	b292ee10-c7	1_.000:2.JPG	Title:2.JPG	<input type="checkbox"/>	7302b536-43	2_.000	Title:Disposition approval:...
<input type="checkbox"/>	ID	File Name	File Attribute																		
<input type="checkbox"/>	6575db96-b7	1_.000	Title:asd																		
<input type="checkbox"/>	b292ee10-c7	1_.000:2.JPG	Title:2.JPG																		
<input type="checkbox"/>	7302b536-43	2_.000	Title:Disposition approval:...																		
Content Types	√	√	√	<ul style="list-style-type: none"><li>The content types can be restored together with the site collection/site/list/library/item/document.</li></ul>	N/A																
User Profiles			√	<ul style="list-style-type: none"><li>If you want to restore the user profiles, you must select the SharePoint object that is associated with the user profile on the backup tree, and check the checkbox in front of <b>Include user profile</b>.</li><li>Make sure the User Profile Service is started on the destination.</li></ul>	<div><div>- Item Level Settings</div><div>User Profile</div><div>Choose whether, or not, to backup the user profile in the selected content.</div><div><input checked="" type="checkbox"/> Include user profile</div></div>																
SharePoint Workflows	√		√	<ul style="list-style-type: none"><li>For the Item Level, if you want to restore the workflow, you must select the SharePoint object that is associated with the workflow on the tree, and check the checkbox in front of <b>Include workflow definition/Include workflow instance</b>.</li><li>For more information, refer to Workflow Restore Notes.</li></ul>	<div><div>Workflow</div><div>Define how SharePoint workflows are backed up for the selected content. 'Definition' is the definition of existing source workflows. 'Instance' is the state, history, and tasks, for each item.</div><div><input checked="" type="checkbox"/> Include workflow definition</div><div><input checked="" type="checkbox"/> Include workflow instance</div></div>																
SharePoint Designer Customizations	√	√	√	<ul style="list-style-type: none"><li>The customizations can be restored together with the selected contents.</li></ul>	N/A																
Web Parts	√	√	√	<ul style="list-style-type: none"><li>The Web parts can be restored together with the selected content.</li></ul>	N/A																
Lists and items with Managed Metadata	√	√	√	<ul style="list-style-type: none"><li>If you want to restore an item that uses the managed metadata term sets, make sure the Managed Metadata Service is started on the destination.</li><li>If you want to restore the term sets, use the Item Level and make sure the Managed Metadata Service is started on the destination.</li></ul>	N/A																
Sites with Custom Templates	√	√	√	<ul style="list-style-type: none"><li>If the custom template is generated from the SharePoint built-in site templates, typically from “Save site as template”, it will be restored together with the site.</li><li>If the custom template is written by the customer, it may not be usable after a Granular Restore job. Because the development varies from each other and the template is specially designed to realize the customers’ requirements.</li></ul>	N/A																

## Workflow Restore Notes

To restore the workflow definition and instance, make sure you have selected the related checkboxes (**Include Workflow Definition** and **Include Workflow Instance**) when performing the backup job and also you must select the related checkboxes in **Workflow** field when performing a restore job. Note that the **Replace** or **Merge** for **Container level conflict resolution** in the **Restore Settings** must be selected.

In the **Workflow** section, select the options as introduced below:

- **Workflow Definition** – The user-created workflow definition in the site, list, or library. SharePoint built-in workflows, workflows defined by SharePoint Designer, and workflows defined by Nintex are supported. Workflows defined by Visio Studio are not supported.
- **Workflow Instance** – The item instance created upon the triggering of a workflow definition. This includes the workflow state, workflow history, and workflow tasks. In the Restore Wizard, you can choose whether or not to restore the running workflow instances from the backup data to the destination, and continue to set the status of the restored instances, cancel the workflows or restart the workflows.

In order to restore the workflow definition and workflow instance correctly, the following requirements must be met:

- The workflow definition must be restored to the destination farm before restoring the workflow instance.
- The workflow feature must be enabled before you restore the workflow definition and workflow instance.

**\*Note:** Granular Backup and Restore does not support restoring the workflow instance for SharePoint Online environment.

## Restoring Workflow Definitions

If there is an existing destination workflow definition having the same name as the one in the source, then the backed-up workflow definition will be restored to the destination when selecting **Replace**; when selecting **Merge** or **Skip**, the backed-up workflow definition will not be restored.

## Restoring Workflow Instances

If the content where the workflow instance is based on skips being restored to the destination, the workflow instance will not be restored. If the content is restored to the destination and there is an existing destination workflow definition having the same name as the one in the source, the backed up workflow instance will be restored to the destination.

If there is no workflow definition in the destination for the restored workflow instance, it is skipped and the corresponding information is recorded under the **Configuration Details** tab in **Job Details**.

Currently, the following three types of workflow instances cannot be restored:

- Workflow instances in checked out files
- Workflow instances in SharePoint 2013 running on Windows Workflow Foundation 4 (installed with Workflow Manager)
- Workflow instance of SharePoint Designer workflow whose platform type is SharePoint 2013 Workflow.

## Supported and Unsupported Workflows

View the support status of different types of workflows in SharePoint on-premises and SharePoint Online.

Workflow Name	SharePoint On-Premises Support Status	SharePoint Online Support Status
SharePoint Built-in Workflow	Supported (SharePoint 2010, SharePoint 2013)	Only support workflow definition.
SharePoint Designer Workflow	Supported (SharePoint 2010, SharePoint 2013)	Only support workflow definition.
Nintex Workflow	Supported (SharePoint 2010, SharePoint 2013)	Unsupported
Visual Studio Workflow	Unsupported	Unsupported
Visio Workflow	Unsupported	Unsupported

# Appendix F – Advanced Settings in Configuration Files

## AgentCommonWrapperConfig.config

Configure the **AgentCommonWrapperConfig.config** file to configure whether to restore custom properties in the SharePoint property bag.

Go to the machines that have DocAve Agent installed on them and open the ... \AvePoint\DocAve6\Agent\bin directory to find the **AgentCommonWrapperConfig.config** file.

## Restoring Entered Web Properties

Open the **AgentCommonWrapperConfig.config** file and find the **WrapperCommon** node. Within this node, find the **<RestoredAllWebProperties>False</RestoredAllWebProperties>** node and the **<SpecialWebPropertyNames></SpecialWebPropertyNames>** node. These two nodes are added to the configuration file automatically when you first run a Granular Backup and Restore job.

- If you do not want to restore custom properties in the property bag, use the default **False** value. When using the **False** value, you can also add the specific custom properties in the **SpecialWebPropertyNames** node, and the custom properties you entered will be restored. Use a semicolon to separate the custom properties. For example, **<SpecialWebPropertyNames>property1; property 2; property3</SpecialWebPropertyNames>**.  
**\*Note:** The build-in properties in property bag are all restored.
- If you want to restore all properties including the custom and build-in properties, change **False** to **True**. When using the **True** value, you can add the specific properties in the **SpecialWebPropertyNames** node, and the properties you entered will not be restored.

## SP2010GranularBackupRestore.cfg and SP2013GranularBackupRestore.cfg

Configure the **SP2010GranularBackupRestore.cfg/SP2013GranularBackupRestore.cfg** file to configure the following configurations:

- Whether to back up and restore the stubs (generated when using Connection or Storage Manager) and the data related to the stubs.
- How to deal with the conflict contents when they have the same modified time.

## Backing Up and Restoring Stubs and Related Data

Go to the machines that have DocAve Agent installed on them and open the ... \AvePoint\DocAve6\Agent\data\SP2010\Item directory to find the **SP2010GranularBackupRestore.cfg**

file. The **SP2013GranularBackupRestore.cfg** file is located in the ...\\AvePoint\\DocAve6\\Agent\\data\\SP2013\\Item directory.

## Backing Up Stubs and the Related Data

Find the **backupSOData** attribute and modify the value of the attribute to configure the backup settings.

- **Skip** – Do not back up any stubs. The data related to the stubs is also not backed up.
- **OnlyBackupContent** – Only back up the data related to the stubs. The stubs are not backed up.
- **OnlyBackupStubs** – Only back up the stubs. The data related to the stubs is not backed up.

## Restoring Stubs and the Related Data

Find the **restoreSOData** attribute and modify the value of the attribute to configure the restoring settings.

- **true** – Both the backed up stubs and the backed up data related to the stubs will be restored. When you only backed up the stubs, it is only supported to use In Place Restore to restore the stubs. Otherwise, the stubs cannot be restored.

Restore the stubs after you have run a Clean Up Orphan BLOBs job (this job removes orphan BLOB content in the external storage after the corresponding stubs are removed from SharePoint). Granular Restore can restore the stubs successfully and make these stubs connect to the related BLOB content in the external storage after the BLOBs are restore to the external storage by customer.

- **false** – Both the stubs and the data related to the stubs will not be restored.

## Configuring Resolution for Content with the Same Modified Time

Configure the **SP2010GranularBackupRestore.cfg** or **SP2013GranularBackupRestore.cfg** file to configure behavior when contents in the source and destination have the same modified time.

Go to the machines that have DocAve Agents installed on them and open the ...\\AvePoint\\DocAve6\\Agent\\data\\SP2010\\Item directory to find the **SP2010GranularBackupRestore.cfg** file. The **SP2013GranularBackupRestore.cfg** file is located in the ...\\AvePoint\\DocAve6\\Agent\\data\\SP2013\\Item directory.

In the file, find the **SkipIfSameModified** attribute. Modify the value of this attribute.

- **true** – The backed up item/document will be skipped and not be restored.
- **false** (default) – The backed up item/document will be restored according to the resolution you select from the **Content level conflict resolution** drop-down list when configuring the **Restore Settings**.
  - **Skip** – The backed up item/document will not be restored.



- **Overwrite** – Overwrites the destination item/document with the backed-up item/document.
- **Overwrite by Last Modified Time** – The backed up item/document will not be restored.
- **Append an Item/Document Named with a Suffix** – Restores the backed-up item/document to the destination and adds a suffix to the end of the document/item name. The destination item/document is not deleted.
- **Append a New Version** – Restores the backed up item/document to the destination as a new version of the destination item/document.

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