



ADDS Inventory

Inventory the Active Directory service

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1. Introduction

Docusnap inventories the Active Directory with all associated classes such as users, groups, user group memberships, group policies and computer objects.

LDAP / LDAPS queries are used for the actual inventory of the objects located in the Active Directory. In detail used ports and necessary permissions are listed in the whitepaper for the inventories.

In addition to the actual inventory of the Active Directory ([Chapter 2](#)), this HowTo also describes the possibility of script-based inventory ([Chapter 3](#)).

Docusnap inventories, in the course of the ADDS inventory, among other things the used objects with a selection of the associated properties. If properties you use are not inventoried, you can add them to the ADDS inventory later ([Chapter 4](#)).

In Chapter 5 you will find the most popular reporting options on topics related to Active Directory Inventory.

2. Active Directory Inventory

For the network inventory of the Active Directory start the corresponding wizard:

- Discovery - All Wizards - Active Directory
- Inventory - All Wizards - Active Directory
- All Jobs - All Wizards - Active Directory

In **step 1**, select your company or your customer's company.

In **step 2**, select the Discovery Service through which you want to perform the inventory.

For a scheduled inventory, select Docusnap Server Discovery or a Discovery Service you have configured here.

Furthermore, select or enter the domain and an appropriately authorized user with their password. Use the NetBios notation for the user (domain\user).

In **step 3**, you can now set the necessary properties for the inventory:

Using the **Start search at** filter criterion, you have the option to limit the AD inventory to a specific organizational unit.

This may be necessary if your users, groups and computers etc. are available as of a specific organizational unit in a comprehensive Active Directory in which parent / subsidiaries are mapped.

If this is not the case, then you should not set a filter here!

When filtering, note the default active option within the **advanced options**: Read all users, groups and computers!

This option should be deactivated as a rule, because otherwise all users, groups and computers of the overall structure are inventoried again.

For the inventory of the group policies (GPO) a host with installed group policy management console is needed. Usually one of the domain controllers. Alternatively, the console can be installed on other systems.

The inventory of GPOs is performed using PSEXec. If an error occurs during the check, you can perform the error analysis using the Inventories via PSEXec HowTo.

In the advanced options, you can enable that the

- domain structure
- Active Directory Sites and
- structure permissions

are inventoried.

3. Script-based Active Directory inventory

3.1 Performing a Script-based Inventory

Docusnap offers the possibility to capture the Active Directory also locally, on a domain controller, using a script-based inventory.

The script file can be found in the Docusnap installation directory:

- %Docusnap-InstallationDirectory%\Discovery-ADDS.exe.

In the simplest case, without further configuration and with full inventory scope (All classes, forest, GPOs, domain structure, permissions, locations) you can copy the Discovery-ADDS.exe to a domain controller and run it there.

If further settings are required, the script-based Active Directory inventory can also be customized. To do this, use the Export AD Settings wizard:

- Discovery - All Wizards - Export AD Settings.
- Inventory - All Wizards - Export AD Settings
- All orders - All wizards - Export AD settings

Within this wizard, you can manage the same inventory options as the Active Directory Inventory Wizard discussed earlier.

After all options have been set, the settings will be exported to a zip file. Transfer the zip file to the target domain controller and unzip it.

Now run the Discovery-ADDS.exe additionally with the parameter -config ADSettings.xml.

3.2 Import inventory

Once the inventory is complete, you will find a DSI file with the inventoried information:

You can import this data to Docusnap using the File import wizard:

- Discovery - All Wizards - File import
- Inventory - All Wizards - File import
- All Orders - All Wizards - File import

In **step 1**, select your company or your client's company.

In **step 2**, select the discovery service through which you want to perform the inventory.

For a scheduled inventory, select Docusnap Server Discovery or a discovery service you have configured here.

Note here that the user running one of the services must have read and write access to the path selected in the next step.

Local system = storage directory can only be local

In **step 3**, select the directory where you have stored the generated DSI file.

This directory can also be a network drive. Note the share permissions.

In **step 4**, you can now search for valid script files.

If there are files from other script inventories (DNS, DHCP, Windows, etc.) in the folder you selected, these will also be considered.

3.3 Automate script execution

The big advantage of Docusnap is that data is regularly and automatically inventoried and therefore up-to-date. This can also be achieved with script inventories.

The first step is to automate the execution of the script. Among other things, this can be done with a software distribution, as well as with Windows on-board means - task scheduling.

Switch to the Task Scheduler of your domain controller and create a new task.

In the **General** tab, enter a name and select the security options:

Use the following user account: User with full read permissions to the ADDS / local system

Run regardless of user logon

Run with highest privileges

Configure for: Select the appropriate operating system

In the **Trigger** tab, you can configure the script execution schedule - for example:

Start Task: On a schedule

Weekly, repeat every 1 week on: Sunday

In the **Actions** tab you define the execution of the Discovery-ADDS.exe

We recommend creating a hidden share on the Docusnap server / system that runs the Docusnap Discovery Service.

Two folders are required in this share:

To store the Discovery-ADDS.exe - read permissions are required here.

z. B. \\SRV-Docu\DocusnapScript\$\Scripts

To store the result files - change authorisations are required here.

z. B. \\SRV-Docu\DocusnapScript\$\Company#Domain.FQDN

We recommend the Microsoft Best Practice for the use of permissions, so that the **Everyone** group receives **full access** and only the **Domain Computers** and **Domain Controllers** groups receive **Change** permissions via NTFS permissions. Additional hardening measures must be taken on a customer-specific basis.

Action: Start program

Program / script: \\SRV-Docu\DocusnapScript\$\Scripts\Discovery-ADDS.exe

Arguments: -config ADSettings.xml -O "\\SRV-Docu\DocusnapScript\$\Company#Domain.FQDN"

The -O parameter redirects the result files to the specified path. The user performing the inventory must have write permissions on this path.

If you use different languages on the domain controller, you must use the SID of the local system account -> to do this, edit the group policy after creating it under the following path:

[\\YourDomain\SYSTEM\YourDomain\Policies\{YourGPOGUID}\Machine\Preferences\ScheduledTasks\ScheduledTasks.xml](#)

Search for the string `runAs="NT AUTHORITY\SYSTEM"` in all places in the XML file and replace `NT AUTHORITY\SYSTEM` with the SID `S-1-8-15`.

The newly created task ensures that the inventory is run regularly and automatically.

It should always be ensured that the current version of the script file is used! This means that after an update of Docusnap you also exchange the script files! A best practice approach for this can be found in the chapter - [Keeping used script files up to date](#).

The next step is to set up the import of the inventory as a job. Note that during an import job, you can also automatically import the results of the other script-based inventories.

Open the File import Wizard:

- Discovery - All Wizards - File import.
- Inventory - All Wizards - File import
- All Orders - All Wizards - File import

In **step 1**, select your company or your customer's company.

In **step 2**, select the Docusnap Server service or a discovery service you created.

In **step 3**, select the directory where the generated DSI file will be stored:

In the recommended configuration, this folder is located locally on the Docusnap Server or on the system that provides the discovery service

Additional directories can also be added for the remaining script executions

In **step 6**, you configure the scheduling.

Besides the simple File import, you can also use the Multi-company import. This allows you to import scripts for multiple companies and/or domains at the same time.

3.4 Keeping used script files up to date

We generally recommend installing a Docusnap Discovery Service (DDS) at least on the system where the Docusnap Server has been configured when using one / the script variants. Additional DDSs can be placed in the decentralized networks (sites, VLANs, etc.).

In the DDS settings, you can specify an additional directory for storing the inventory modules (script files). This causes the script files to be automatically replaced when Docusnap is updated, so they are always up-to-date.

Install and configure the DDS - a HowTo can be found in our Knowledge Base.

After configuration, go to the Settings tab and set the storage directory:

- C:\DocusnapScript\Scripts.

Then share the folder over the network: \\SRV-Docu\DocusnapScript\$.

You can use this share again to call the script file

- \\SRV-Docu\DocusnapScript\$\Scripts\Discovery-ADDS.exe

and to store the JSON files:

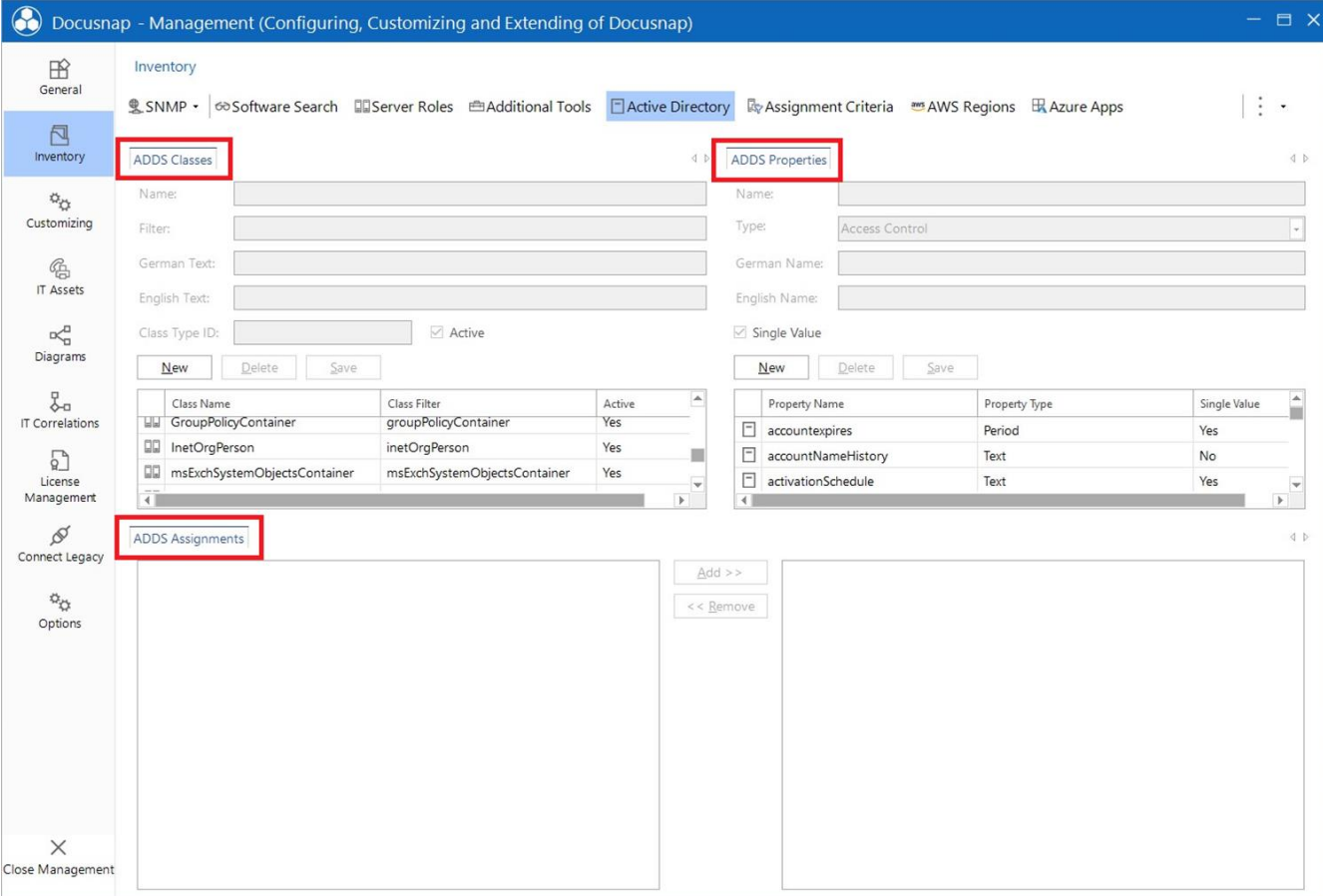
- \\SRV-Docu\DocusnapScript\$\Company#Domain.FQDN

4. Inventory additional ADDS properties

4.1 Basics

In Docusnap Administration, you will find Active Directory Management in the Inventory section. Within this you can

- Customize and extend ADDS classes
- Customize and extend ADDS properties
- Assign newly added ADDS properties to their associated classes (ADDS Assignments).



ADDS Classes

Class Name	Class Filter	Active
GroupPolicyContainer	groupPolicyContainer	Yes
InetOrgPerson	inetOrgPerson	Yes
msExchSystemObjectsContainer	msExchSystemObjectsContainer	Yes

ADDS Properties

Property Name	Property Type	Single Value
accountexpires	Period	Yes
accountNameHistory	Text	No
activationSchedule	Text	Yes

ADDS Assignments

Buttons: Add >>, << Remove

Figure 1 - Active Directory Administration in Docusnap Administration

4.2 Collect necessary values

The first step in adding new ADDS properties is to collect the information necessary in Docusnap. Docusnap requires the following values for adding new ADDS properties:

- Name

The name of the property must match the name that the property or attribute has in Active Directory.

- Type

The type defines the value of the property.

- German Name / English Name

Name of the property as it should be named during the inventory in Docusnap.

- Single value

The checkbox indicates whether this property can be found multiple times per class (e.g., mail addresses) or whether this value exists only once (e.g., name).

Microsoft provides corresponding information within the DOCS - e.g., you can find the documentation for the [Employee-ID attribute](#).

4.3 Create and assign ADDS property in Docusnap

After the values are collected, go to Administration - Inventory - Active Directory and select New below ADDS Properties.

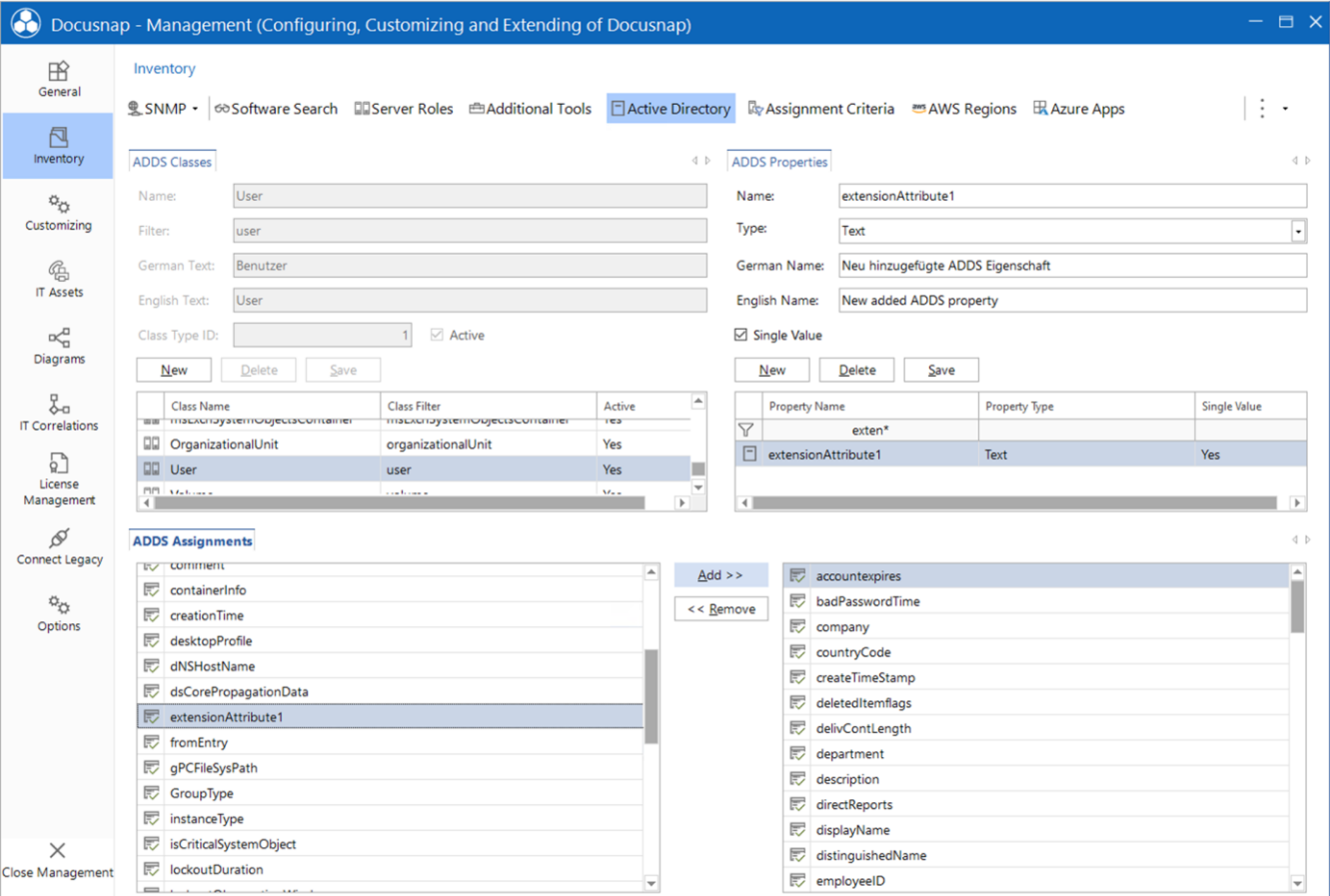
In this example, the extensionAttribute1 will be added to Docusnap:

- Name: extensionAttribute1
- Type: Text
- German Name: Neu hinzugefügte ADDS Eigenschaft
- English Name: New added ADDS property
- Single value: Yes (Active)

After saving, the new property must be assigned to the ADDS class(es).

To do this, first select the corresponding ADDS class - in this example it is the users.

Now, below the ADDS assignment, on the left side, all existing and not yet assigned ADDS properties are listed. Find the newly created property - select it and the Add button adds the new property to the class.



The screenshot shows the Docusnap Management interface with the 'Active Directory' tab selected. The interface is divided into several sections:

- ADD Classes:** A form for creating or editing an ADDS class. The 'Name' field is 'User', 'Filter' is 'user', 'German Text' is 'Benutzer', and 'English Text' is 'User'. The 'Class Type ID' is '1' and the 'Active' checkbox is checked. Below the form is a table listing existing classes.
- ADD Properties:** A form for creating or editing an ADDS property. The 'Name' field is 'extensionAttribute1', 'Type' is 'Text', 'German Name' is 'Neu hinzugefügte ADDS Eigenschaft', and 'English Name' is 'New added ADDS property'. The 'Single Value' checkbox is checked. Below the form is a table listing existing properties.
- ADD Assignments:** A section for assigning properties to classes. It features two lists: a left list of available properties and a right list of assigned properties. The 'extensionAttribute1' property is selected in the left list, and the 'Add >>' button is visible.

Class Name	Class Filter	Active
machinerySystemObjectContainer	machinerySystemObjectContainer	Yes
OrganizationalUnit	organizationalUnit	Yes
User	user	Yes

Property Name	Property Type	Single Value
exten*		
extensionAttribute1	Text	Yes

Property Name
comment
containerInfo
creationTime
desktopProfile
dNSHostName
dsCorePropagationData
extensionAttribute1
fromEntry
gPCFileSysPath
GroupType
instanceType
isCriticalSystemObject
lockoutDuration

Property Name
accountExpires
badPasswordTime
company
countryCode
createTimeStamp
deletedItemFlags
delivContLength
department
description
directReports
displayName
distinguishedName
employeeID

Figure 2 - Create and assign ADDS property in Docusnap

Now when you run a new Active Directory inventory, you will find the new property on it.

5. Analysis options

5.1 Information in the tree structure

Active Directory inventory information can be found in the tree structure as follows:

- Your Company - Infrastructure - Your Domain - Active Directory.

Here you can now navigate through the inventoried structure, including the group policies.

Below the users you will find all active as well as deactivated users of the Active Directory. In the next level you can evaluate the properties and the direct group memberships of the user.

Furthermore, you have this information also for groups and computer objects.

5.2 Report - Changes / Comparison Report

The Changes report lists all changes between the current and the previous Active Directory inventory. You get an overview of

- Added and deleted user accounts
- Added and deleted groups
- Added and deleted computer accounts
- Added and deleted group memberships
- ADDS container changes (user, group or computer objects were moved)

You can find the report in the tree structure as follows:

- Your company - Infrastructure - Your domain - Reports - AD DS Infrastructure.

In addition to the Changes report, you can also find the Comparison report there. This report lists the same changes in the Active Directory, but you can choose which inventory levels should be compared.

5.3 Report - List Objects

The List objects report provides you with a flexible way to evaluate the inventoried information from the Active Directory. You can find the report in the tree structure as follows:

- Your Company - Infrastructure - Your Domain - Reports - AD DS Infrastructure.

When the report is called, a form field appears first.

- **Class:** Here you select the class for which you want to run an evaluation (user).
- **Property:** Here you select the property to be evaluated (Newly added...).
- **View:** Here you can select other properties to be displayed.

You can use the report to answer the following questions, for example:

- List all users of a department
- List all active users whose password does not expire
- List all users who have not been logged in for X days

LIST OF FIGURES

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FIGURE 2 - CREATE AND ASSIGN ADDS PROPERTY IN DOCUSNAP 14

VERSION HISTORY

Date	Description
09/29/2022	HowTo created
11/27/2023	Version 2.0 - Revision of the HowTo for Docusnap 13
11/11/2024	Version 2.1 - Revision of the HowTo for script storage
11/20/2024	Version 3.0 - Revision of the HowTo for Docusnap 14
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