

Docusnap X - Docusnap Connect, CSV Import

Importing and Exporting Data with Docusnap



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1. Docusnap Connect - the central function for the preparation of information

Docusnap users often face the challenge of preparing the data collected by Docusnap according to their needs. With Docusnap Connect, Docusnap users can prepare specific data in the Docusnap interface (hierarchical structure), reuse it (concepts) or export it for further use. Thus Docusnap Connect partially replaces the creation of a user-defined view (customizing) in the hierarchical structure. The views displayed in the hierarchical structure can also be used later within the Docusnap concepts.

For example, you would like to supplement your Windows systems recorded in Docusnap with inventory numbers available in Excel format (CSV import). Or for a new migration project, you need a quick list of all workstations that still use Windows 7 as their operating system and have less than 4 GB of RAM. Another requirement is that you want to make the data available in Docusnap available in a third-party product (export of data). If you want to get an overview of all systems (Windows, Linux, Mac, SNMP) in the hierarchical structure and thus get a holistic overview (preparing data in Docusnap)

This document describes with concrete practical examples how you can quickly and easily implement requirements regarding data export / preparation and data import using Docusnap Connect.

This HowTo describes the use of Docusnap Connect using the following use cases:

- Creating an overview (preparation of data in Docusnap)
 - o Overview of all systems (Windows, Linux SNMP) and the last scan date.
 - Step 1: Create a package
 - Chapter 2.1.1
 - Step 2: Select data to export
 - Chapter 2.1.3
- Interface to third-party products (export of data):
 - o Export of all Windows systems to a database
 - Chapter 3
- Importing information (importing data):
 - The inventoried workstations are to be supplemented by a description. The descriptions are available in an Excel file.
 - Chapter4



2. Docusnap Connect

This HowTo describes the latest version of Docusnap Connect which was released in October 2019. It is assumed that the Docusnap database is located on a Microsoft SQL 2012 Server or Microsoft Express 2012 or higher. Docusnap Connect Version 1 (legacy) is still available for export with older SQL versions. However, this limits the range of functions. This HowTo refers exclusively to the use of Docusnap Connect.

A HowTo for Docusnap Connect 1 can be found here: Docusnap Connect 1

Before a data export from Docusnap can take place, the following steps must be carried out:

a) Creating a Package

Data export requires a definition of the data to be output. These definitions are called packages in Docusnap. The package is created with Docusnap Connect. In principle, the user creates database queries via the graphical user interface.

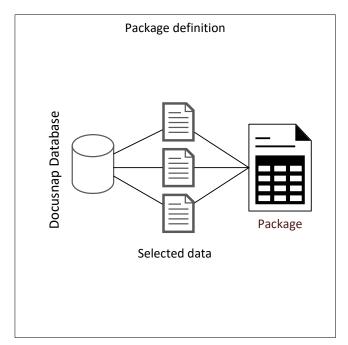
b) Creating a target definition

The actual export is configured with the target definition. The Plan Package wizard defines when, how often and in which format the data defined in the package is to be output. More about that later.

c) Representation of packages in the hierarchical structure

Created packages can now be displayed and reused in the hierarchical structure (e.g. within Docusnap concepts)

Packages that are created are not only suitable for export, but are also displayed in the hierarchical structure.



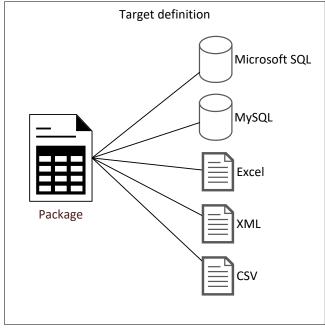


Fig. 1 - Separate Package and Destination Definitions



2.1 Application example - Preparing data in Docusnap

The creation of a package definition with the following information is intended as an application example:

 Output of all systems (Windows, Linux, SNMP) with the system name, the last inventory and the system type

Although this information can be exported, it should primarily serve as an overview in Docusnap. The user should receive a complete overview of the systems described above with the last scan date. Thus, the quality of the data can be regularly checked at a glance.

2.1.1 Create Package

The creation of a Docusnap Connect package is done in the tab Extras - Edit package dialog. The package is created there and the content to be exported is defined.

In the Edit Connect Package dialog new packages can be created, existing packages can be edited / duplicated or deleted.

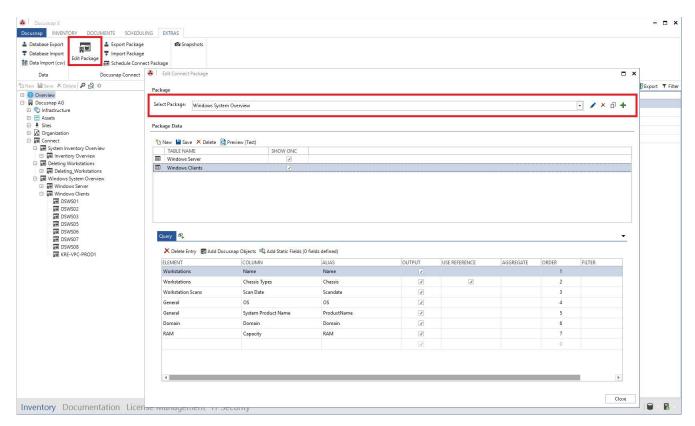


Fig. 2 - Creating and Managing Docusnap Connect Packages



2.1.2 Create new package

To create a new Docusnap Connect package, select the Plus button. The title, text German and text English are then filled in and the data saved.

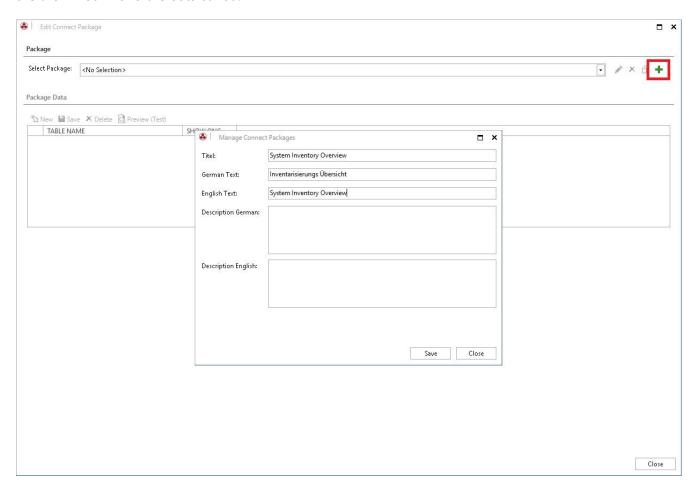


Fig.3 - Creating a New Package



2.1.3 Select data

2.1.3.1 General information

The objects that contain the data to be exported must be selected. The wizard, which you open via Add Docusnap Objects, displays the already known tree structure and allows you to navigate and select information.

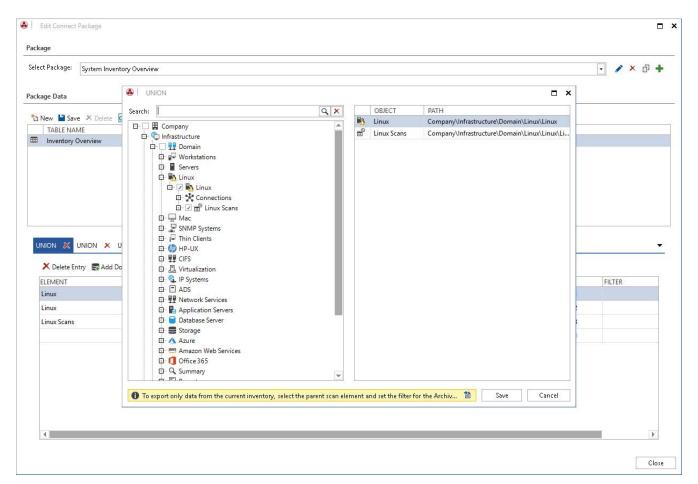


Fig.4 - Data Selection



2.1.3.2 Host name and scan date

For the application example, the names of the workstations and their scan date are required. For the host name, navigate to the workstations and select the checkbox in front of it.

You add the scan date via the workstation Scans.

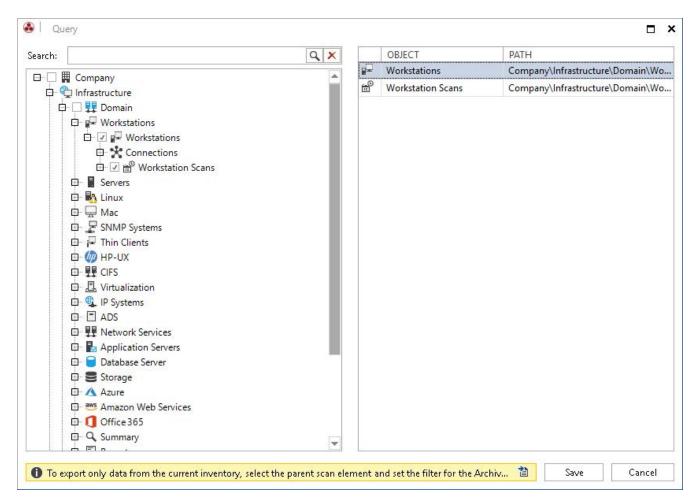


Fig.5 - Selection of Objects



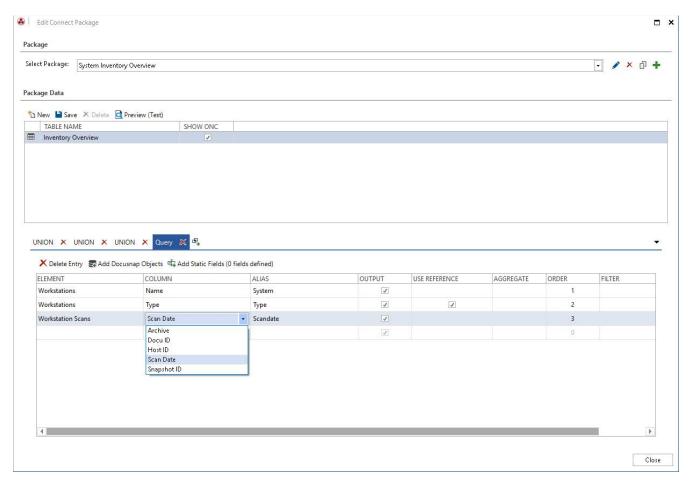


Fig. 6 - Selection of Columns to Display



2.1.3.3 Extension for Windows Server / Linux and SNMP

The steps described above are now repeated for the other system types. For this purpose, a further query is created via the Union function. The Union function allows data from several areas to be displayed in a list.

Important:

The aliases of the added Union queries must be identical.

In this case: system, scan date and type.

A further explanation can be found in chapter 2.3.5

Create the queries also for the Windows Server, Linux and SNMP systems. Note the adjustment of the alias.

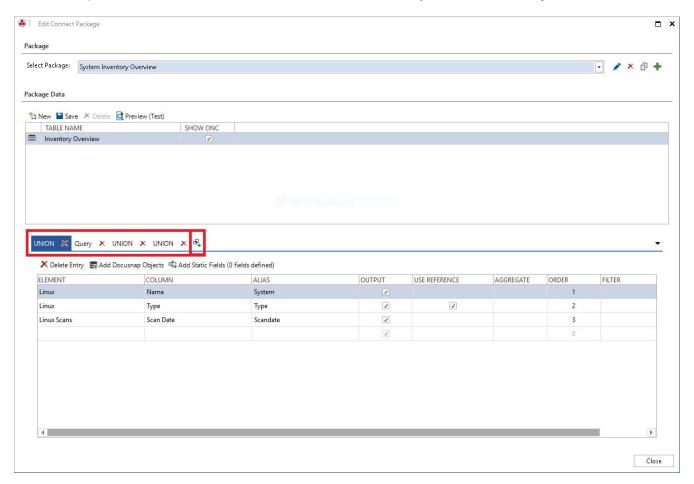


Fig.7 - Insert UNION



2.1.4 Preview

The preview can be used to display and check the data records to be exported:

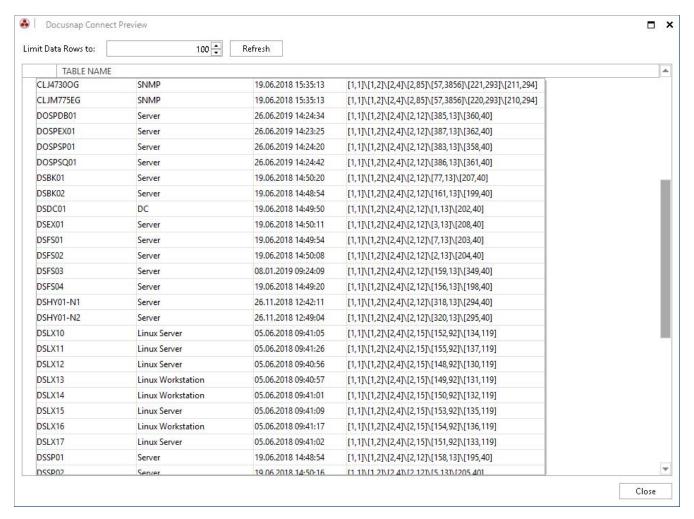


Fig. 8 - Show Preview

The use of the preview function is highly recommended. This allows you to check whether the selected fields actually contain the required information. By default, the records are limited to 10 - you can adjust this value as you wish.

The ONC column describes the unique position of each meta object within the hierarchy.

For more information on ONC paths, see the Docusnap User Guide.



2.1.5 Display in the Hierarchical Structure

The previously created Connect Package can now be displayed in the hierarchical structure (data tree) and thus quickly and easily provide searched information. Also note that you can use the filter and the Excel export.

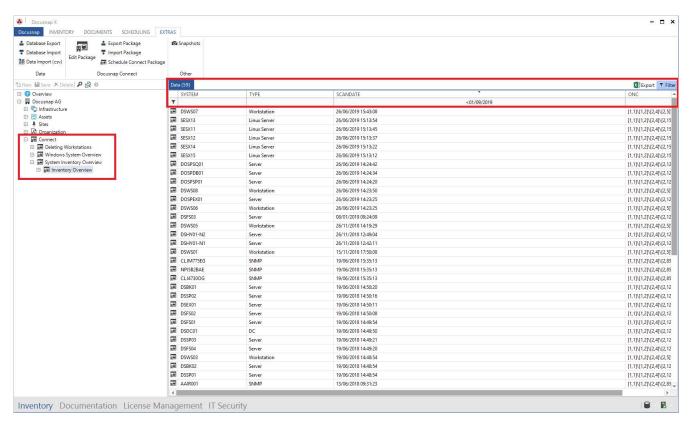


Fig. 9 - Representation of the Connect Package in the Hierarchical Structure



2.2 Schedule Package

2.2.1 General

Planning a package allows you to export the previously selected data interactively or scheduled to SQL databases and files.

The following output formats are available:

- Microsoft SQL Server
- Microsoft Excel
- CSV
- MySQL Server
- XML (usually and as dataset)

2.2.2 Assistent

The export of a previously defined package is triggered via Extras - Plan Connect Package.

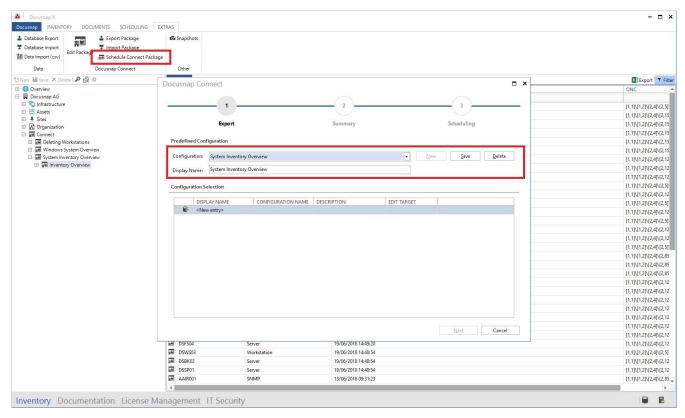


Fig.10 - Planning Connect Packages



2.2.3 Select configuration

In the first step, you select the Connect Package(s) to be exported - within a job, several Connect Packages can also be exported. Proceed as follows to make your selection:

New

Package selection

Save

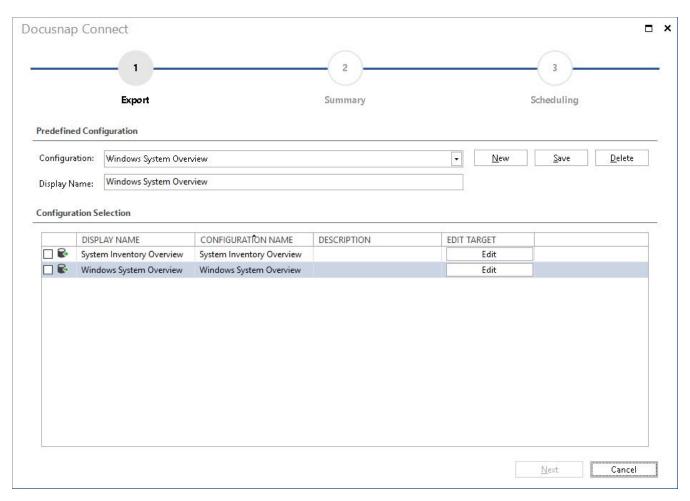


Fig. 11 - Selection of Packages to Export

In the next step, the output format is selected by means of Edit.



2.2.4 Set output format

The Edit button opens the dialog for selecting the output format. Different dialogs are displayed depending on the output format.

A description of the output formats can be found in the Docusnap user manual.

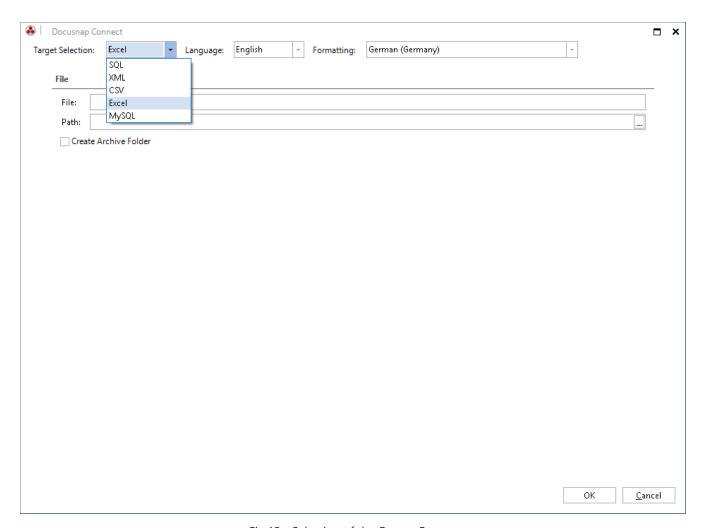


Fig.12 - Selection of the Output Format



2.2.5 Planning

After the summary is displayed, the scheduling option is offered.

The prerequisite for use is that the Docusnap Server has been configured. Further information about the Docusnap Server service can be found here:

https://www.docusnap.com/help/docusnap-x/user/docusnap-server.html

In the application example, all Windows 7 systems are to be output to Excel every Monday at 13:00.

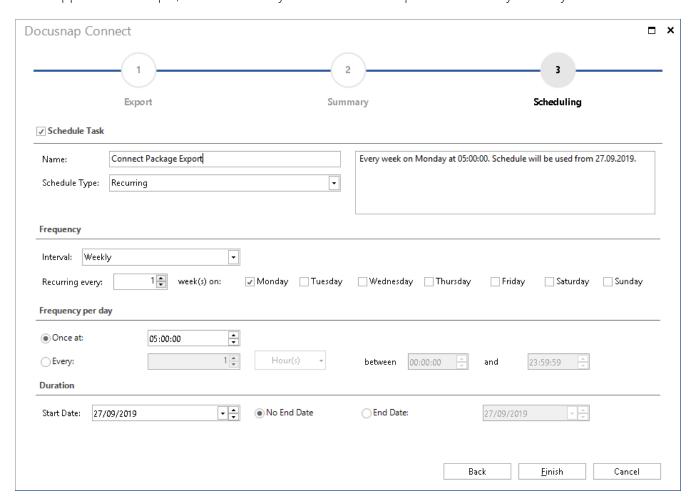


Fig. 13 - Configuration of the time-controlled execution

If no time scheduling is set, the export of the data will be directly afterwards by clicking on *Finish*.



2.3 Advanced topics

2.3.1 Filters

Within Connect Packages, you can also use filters to display only specific data. The filter is specified as a typical SQL filter - e.g. LIKE, =, <> etc.:

If you want to set more than one filter, the syntax is as follows:

like '%Windows 7%' or {Alias:OS} like '%Windows 8%'

The alias specified in the filter must be identical in name to what was specified in the Alias column.

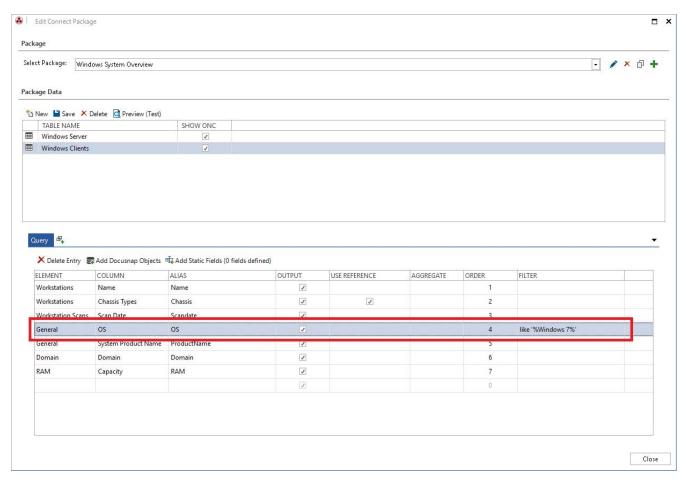


Fig. 14 - Filtering within Connect Packages



2.3.2 Additional Functions in Field Selection

In addition to the filter function already used in the application example, there are other functions for field selection.

Alias

- Specifies the field name with which the output is to be made. The output to an Excel list is, for example, the entries in the header.
- The output to a database is the column captions.

Display/Output

 Defines whether the selected data field is exported itself. It can also be used, for example, only for filtering.

Reference/Use Reference

- Is used to resolve values stored in the database as initial values and output them as meaningful values.
- Further information on the initial values can be found in the Configuration Manual.

Sequence/Order

- Determines, by entering a numeric value, the order of the selected data records in the output. In the standard system, "0" is entered and the output is made in the sequence displayed in the field selection.

Grouping/ Aggregates

- Is explained with an additional example in the next chapter.



2.3.3 Grouping and totalizing

With some information it can occur that after their selection some systems are output several times - e.g. processor, RAM, storage media. This is because the system has several processors, RAM bars and/or hard disks, for example:

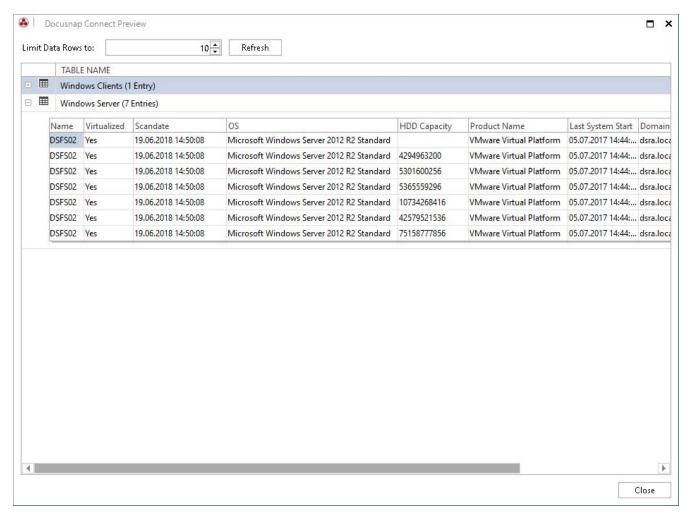


Fig. 15 - Multiple Output of a System

To total the entire working memory or hard disk space and group the CPUs and perform other aggregate functions, you can select them in the Grouping column.



For example, after you have set up the grouping function SUM - for the hard disk storage - the systems with more than one hard disk are simply displayed:

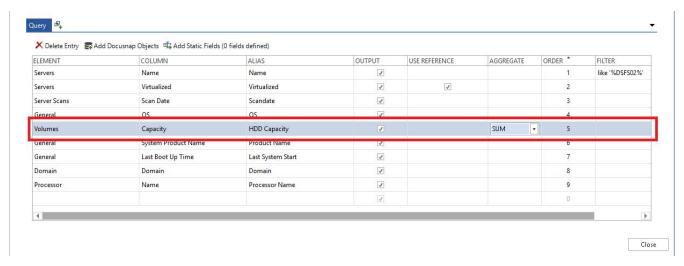


Fig. 16 - Applying the Grouping Function SUM

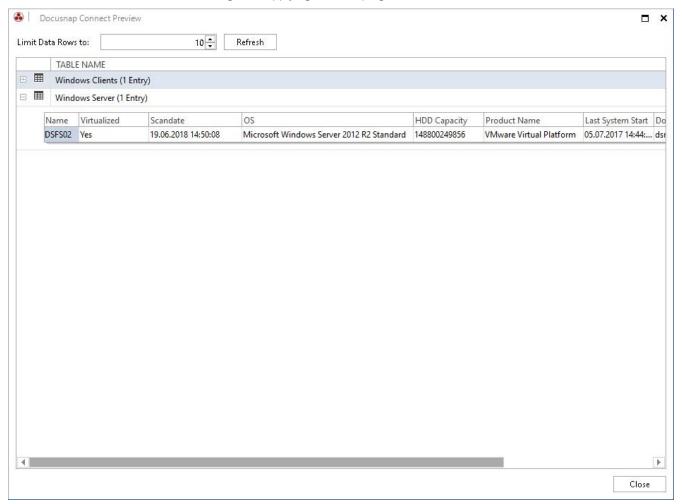


Fig. 17 - Result after Using the Grouping Function



2.3.4 Import/export of Packages

The package definitions created in Docusnap are not limited to the database used. With the Export Package function, a definition can be exported and used in another Docusnap database via Import Package. The file type describing the package has the file extension DCP.

The functions are located in the Extras area of the Docusnap main interface.

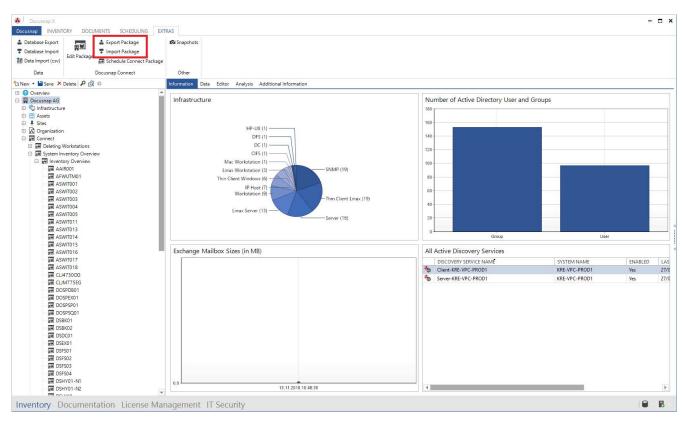


Fig. 18 - Export and Import of Connect Packages



2.3.5 Union

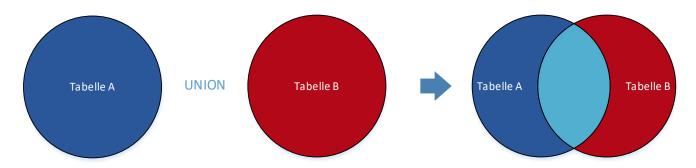


Fig. 19 - UNION Illustration

The UNION operator combines the results of at least two queries into a single query (see:https://docs.microsoft.com/en-us/sql/t-sql/language-elements/set-operators-union-transact-sql?view=sql-server-2017).

The conversion and application of a UNIONS can be found in the creation of the application example.



2.3.6 Static Fields

A static field is an additional column that is inserted into Docusnap Connect. The values shown here are the same for each data record. The application example created here for illustration purposes includes **static fields** and the **UNION** command.

Our application example includes the Last system start field. On the basis of this information, we want to define that systems that were last started before 01.04.2019 can be removed. Systems that were started after 01.04.2019 should not be deleted.

For this project, two queries are required, which are combined with a UNION. The queries differ only in the filter for the last system start:

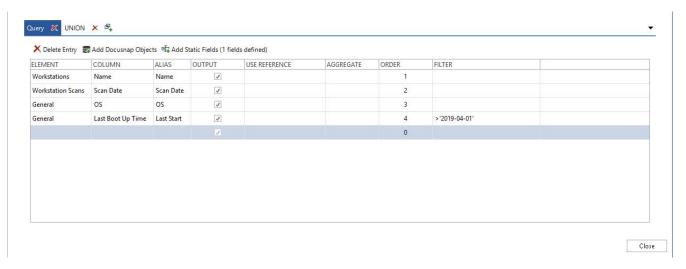


Fig. 20 - Last system start after 01.04.

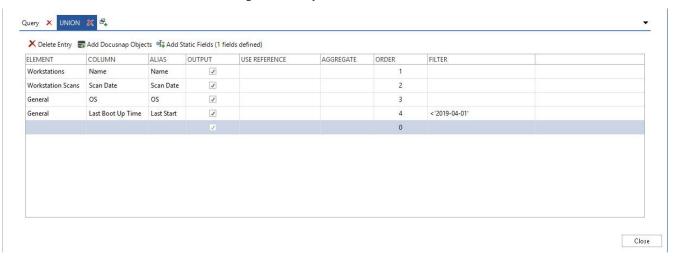


Fig. 21 - Last system start before 01.04.



In the next step, both queries receive a static field:

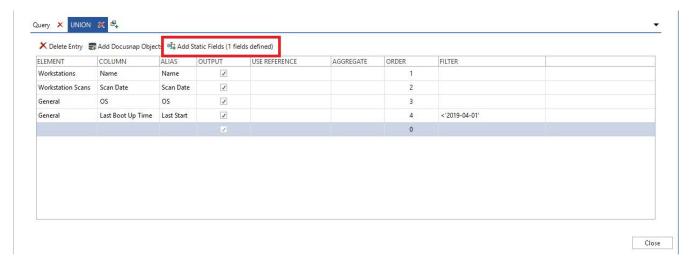


Fig. 22 - Adding a Static Field

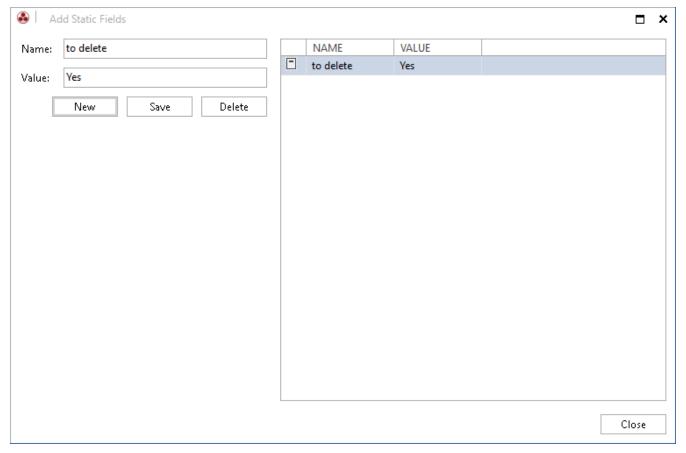


Fig. 23 - Adding a Static Field



After completion, you can now see the following result in the tree structure:

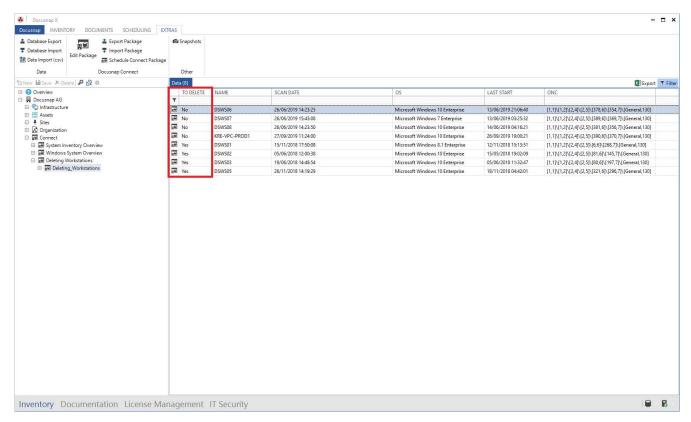


Fig. 24 - Result with Static Fields



3. Interface to third-party products - Export to databases

Docusnap is the leading inventory and information system in many customer environments. The requirement to make the information collected with Docusnap available in third-party products (e.g. ITSM) exists here.

As already described in chapter 3.4, Docusnap Connect allows you to export the data to a Microsoft SQL and/or MySQL database.

This is the most efficient way to export the data from Docusnap and use it in a third party product, if this provides the possibility.

Exporting the data to a database involves the following steps and preparations, which are explained in more detail in the following sections.

Selection of data for export • Create Docusnap Connect Export Package

Export of data

- •In Docusnap database
- •Into new, independent database
- •In the database of the third-party product

Use of the data by the third party product



3.1 Create Export Package

A detailed description of how to create the export package can be found in chapter 2.

When creating a package for export to a database, it is important to pay attention to the table name and the column captions (alias).

Later on, Docusnap can automatically create the database, the specified tables and columns as required.

The name of the tables, which are created by Docusnap and into which the data are exported, is based on the stored table name.

The columns within the table are named using the stored alias. The use of spaces in column captions (aliases) is not recommended.

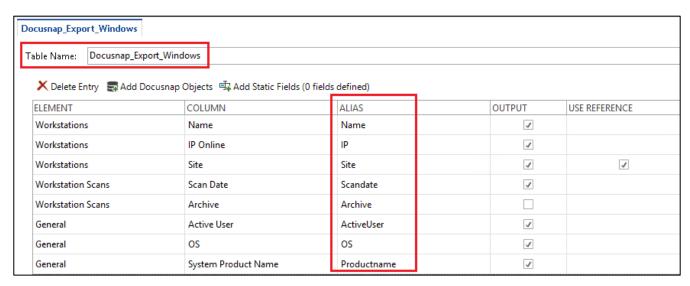


Fig. 25 - Assigning Table and Column Names



3.2 Configurations of the target SQL Server

The database, tables and columns can be created by Docusnap. The prerequisite for this is that the user used to connect to the database instance has the required authorizations.

To create the database, the user must be a member of one of the following SQL Server roles:

- dbcreator
- sysadmin

In later operation, the user should have the database role **db_owner**. The previous assignment to one of the SQL Server roles can be removed.

Windows or SQL Server authentication can be used for authentication.

If Windows authentication is used, you must pay attention to the following:

- 1. The export is carried out manually
 - Which user started Docusnap?
 This user is used for authentication and therefore requires the authorizations on the SQL Server and the database.
- 2. The export is scheduled to run
 - o Who runs the Docusnap Server service The local system account or a services user? Are the permissions available on the SQL Server and the database?

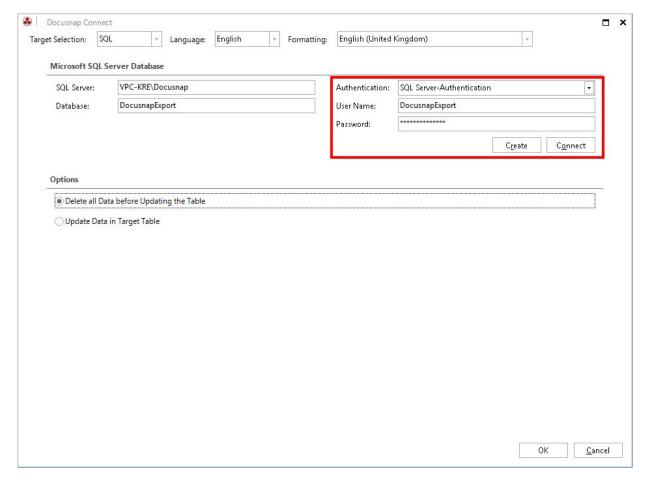


Fig.26 - Database Server Connection Dialog



3.3 Perform Export

After the export package has been created and the permissions set, the actual export can be configured and executed.

- Open the Automation Schedule Package tab.
- Select your previously created package via the drop-down field and confirm it via the Save button.

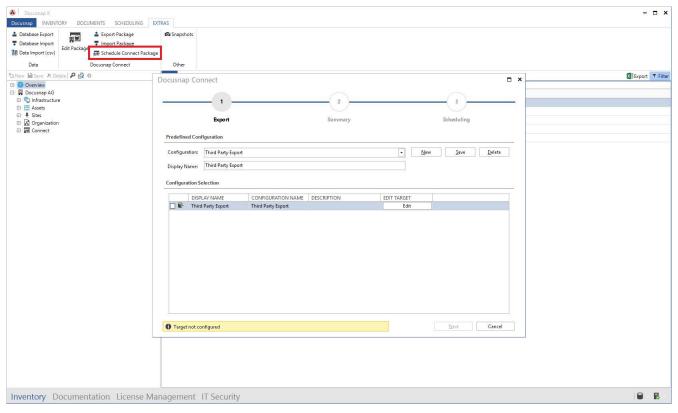


Fig. 27 - Selection of the Export Package

- Via the Edit button you can now perform the necessary configuration regarding the SQL Server, the database and the authentication.
 - o SQL Server here you store the SQL Server with the corresponding instance.
 - o Database the name of the future database or the existing database to which the data will be exported.
 - o Authentication use the method set up here (chapter 4.2)
- To create the specified database, choose the **Create** button
 - o If you do not directly create a recurring request for the export, choose **Connect the** next time you want to use this function.
- With regard to processing during the export, you have the following choices
 - o Delete all target table data before updating
 - o Update target table data



Once the database has been created, the following information appears:

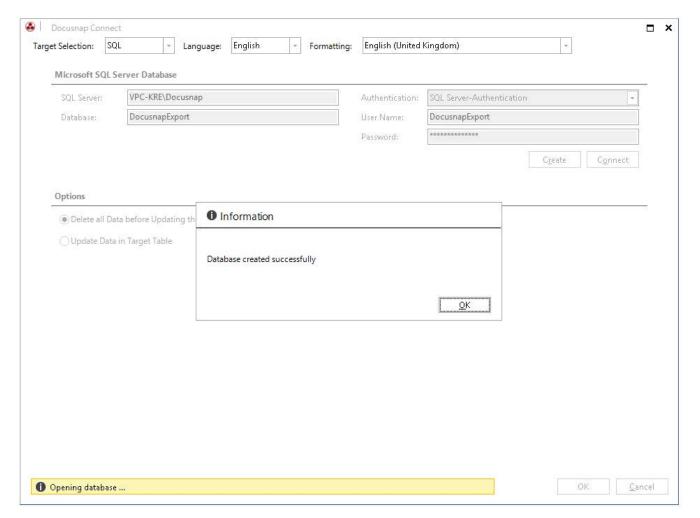


Fig. 28 - Database was created successfully



If the connection to the database has been established successfully, the following information appears:

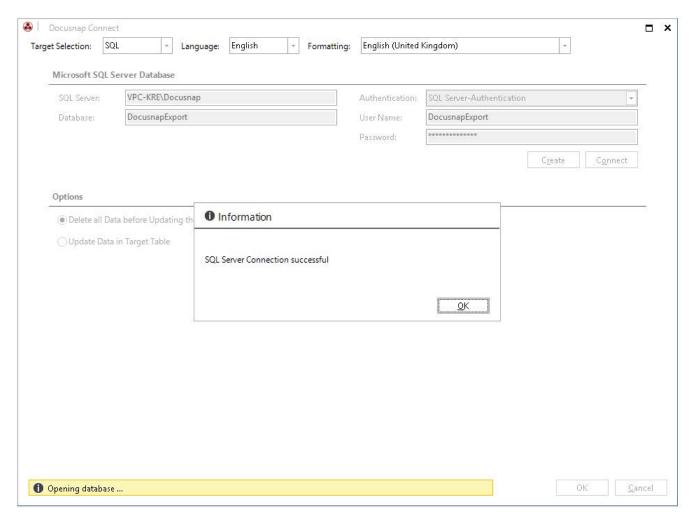


Fig. 29 - Connection to the Database Successfully Established



In step 3 - Scheduling, you can now configure that the export is to be time-controlled and recurring.

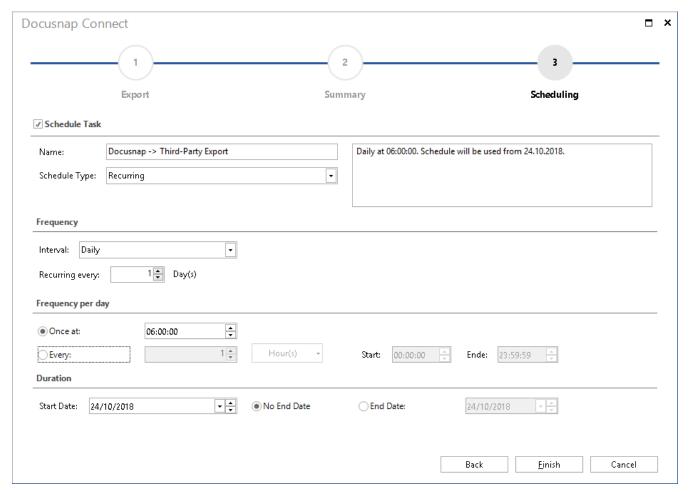


Fig. 30 - Export Time Scheduled



Once the export is complete, you can access the data - for example, via SQL Management Studio or via the third-party product you are using.

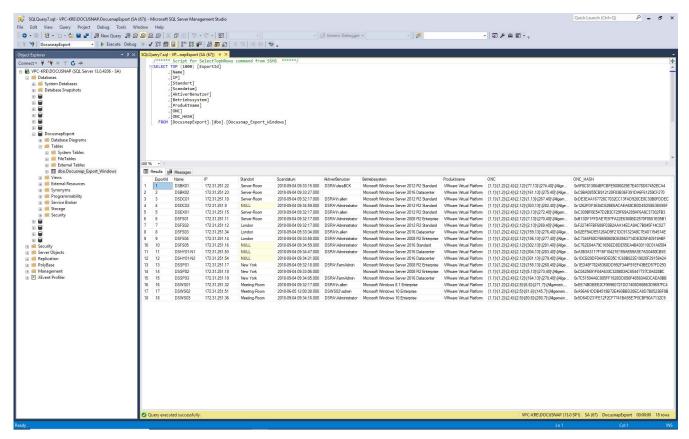


Fig. 31 - Accessing the Exported Data



4. Data Import (CSV)

4.1 Example of Use

Data in CSV format is imported into the Docusnap database via *data import (CSV)*. In this HowTo we show with an example the use of *data import (CSV)*, in which already inventoried workstations are extended by additional data. We update the Description field of the tHosts table with values from a CSV file using the *Data Import (CSV)* function.

4.2 Basics

4.2.1 Import Definition

Data from CSV files can be imported into tables, IT assets and additional information (comments, financial documents, tasks, contracts and passwords) via *data import (CSV)*. This example is limited to the import into a table. The field content of the *data field Description* is to be updated by the entries of the CSV file. Existing contents in the Description data field are overwritten by the import.

4.2.2 Link Online Manual

A current and complete functional description of data import (CSV) can be found in our User Manual.



4.3 CSV File - Preparations

For the import to be successful, the CSV file must contain all required mandatory fields in addition to the data to be transferred. The mandatory fields contain the foreign keys required for the update.

The required fields for an import into the table tHosts are:

- Domain (the name of the domain in which the system is located)
- Name (host name of the workstation)
- Type (in our example "Workstation")

Note: The import works with the foreign key value or the speaking value. For example, the mandatory field "Type" may contain the value "1" or the speaking value "Workstation". The speaking value depends on the Docusnap language setting. A description of how the foreign key value can be determined can be found in our User Manual.

In addition to the mandatory fields, the CSV file contains the field

Description

The field content of the column "Description" shall be imported into Docusnap for this example.

4.3.1 CSV - Sample File

Α	В	С	D
Name	Domain	Туре	Description
WMWS0032	docusnap.intern	Workstation	PC Accounting
WMWS0033	docusnap.intern	Workstation	PC Accounting
WMWS0034	docusnap.intern	Workstation	PC Accounting
WMWS0035	docusnap.intern	Workstation	PC Finance
WMWS0036	docusnap.intern	Workstation	PC Finance
WMWS0037	docusnap.intern	Workstation	PC Finance
WMWS0038	docusnap.intern	Workstation	PC IT
WMWS0039	docusnap.intern	Workstation	PC IT
WMWS0040	docusnap.intern	Workstation	PC IT
WMWS0041	docusnap.intern	Workstation	PC Reception
WMWS0042	docusnap.intern	Workstation	PC Reception
WMWS0043	docusnap.intern	Workstation	PC Reception
WMWS0044	docusnap.intern	Workstation	PC Reception
WMWS0045	docusnap.intern	Workstation	PC Printing
WMWS0046	docusnap.intern	Workstation	PC Printing

Fig.32 - Finished CSV Example File



4.4 Execute Data Import (CSV)

4.4.1 Data Import Wizard (CSV), Step 1 - Import

First the *data import dialog is* opened. You will find this under "Extras" in the "Data" section. In the section "Import Definition" "Table" is selected and in the drop down field the table Hosts is selected:

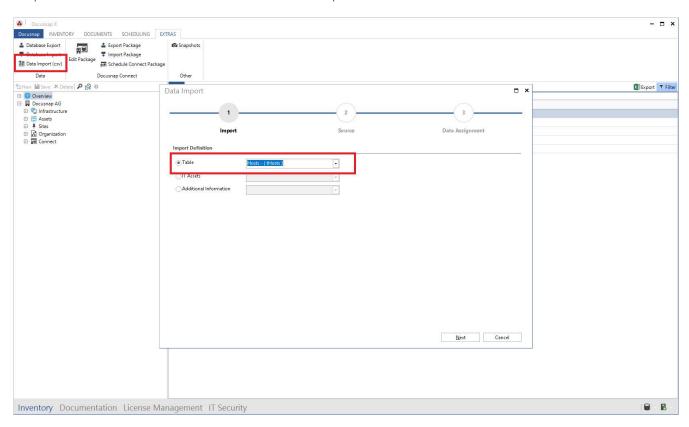


Fig.33 - Select Hosts Table



4.4.2 Data Import Wizard (CSV), Step 2 - Source

In the File section, select the previously created CSV file. The separator "Semicolon" was automatically recognized here. For this example, the checkbox "First line as heading" must also be selected in the "Options" section. In the preview you can check if the CSV file is now resolved properly.

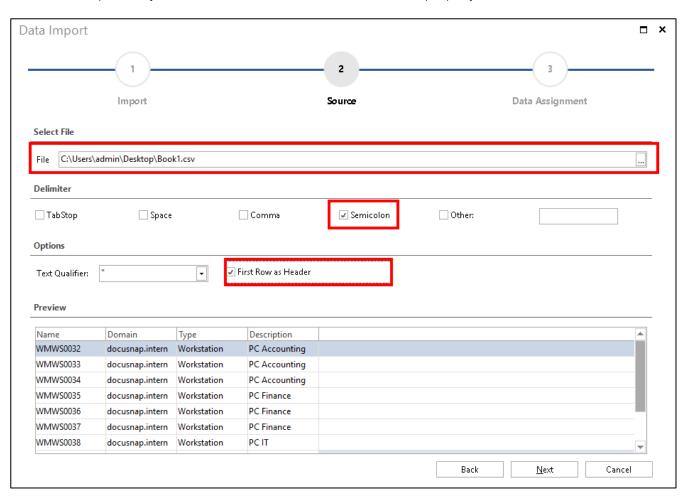


Fig.34 - Selecting a Source



4.4.3 Data Import Wizard (CSV), Step 3 - Data Assignment

Now the columns of our CSV file are mapped to the data fields of the tHosts table.

To do this, select a CSV value and a target property and choose *Assign*. The fields with a yellow triangle containing an exclamation mark are mandatory fields and must therefore be assigned, the remaining fields are optional.

If existing objects are to be updated in Docusnap, *Import* must be selected *as Update*, otherwise duplicates will be created for the existing data records.

As shown in Figure 4, two assignments have already been made, **Name** to **Name** and **Domain** to **Domain**. The field **Description** and the mandatory field **Type** have not yet been assigned.

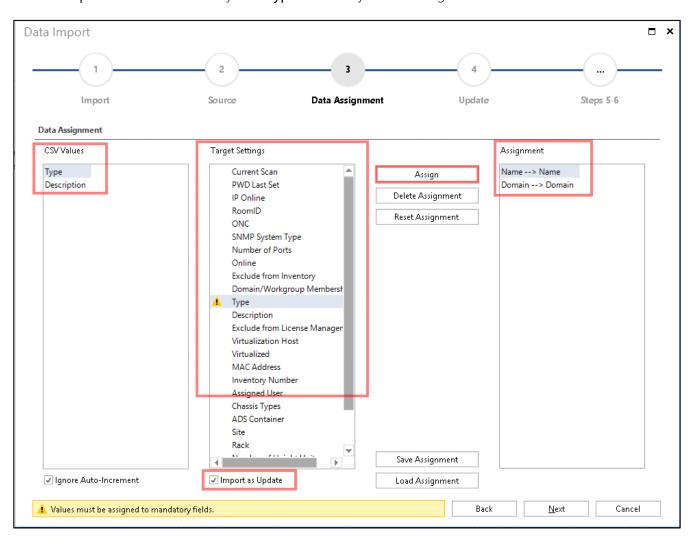


Fig. 35 - Data Assignment - Mandatory Fields Are Not Yet Completely Assigned Here



4.4.4 Data Import Wizard (CSV), Step 4 - Update

This dialog is displayed if the option "Import as Update" has been selected before. With "adapt existing datasets" existing datasets are extended. For this example, the host name is selected as the comparison field for the record update.

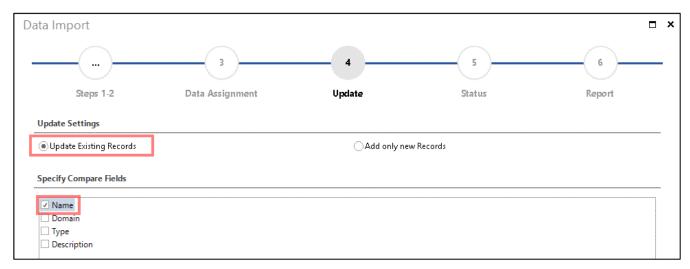


Fig.36 - Update - Select Comparison Field



4.5 Result checking in Docusnap

Finally, the result is checked in Docusnap. In the data view of the workstations, the values of the CSV file are displayed as required in the "Description" column.

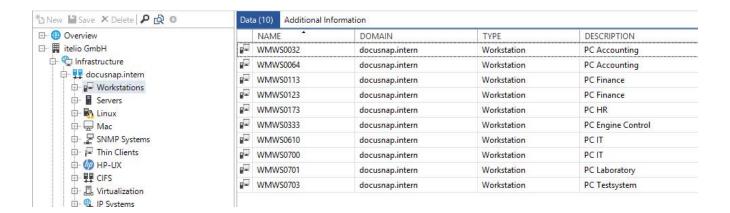


Fig.37 - Result of the Import



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VERSION HISTORY

date	description
November 24, 2016	Version 1.0 – Screenshots adapted to the RTM version
December 15, 2017	Version 2.0 – Publication of Docusnap Connect v2
January 03, 2018	Version 2.1 – HowTo document structure revised
October 24, 2018	Version 2.2 – Changed Screenshots and inserted Chapter 4
January 23, 2019	Version 2.3 – Chapter 3.3.7 – insert possibility to use an alias in the filter function
October 01, 2019	Version 3 - New functions regarding Connect Packages in the data tree described in the HowTo
January 24, 2020	Version 3.1 – Minor formulation adjustments; correction of the multiple filter in the advanced topics;

