Customizing – Create a Data view

Extension of the tree structure with own views

TITLE	Customizing – Create a Data view
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CONTENTS

1. INTRODUCTION

In addition to creating your own views and tables via the **customizing** area, Docusnap also supports individual customization using Docusnap Connect.

The idea behind Docusnap Connect is to compile specific data content quickly and easily via the user interface without having to know the table structure. You can find a corresponding HowTo in our Knowledge Base - Docusnap Connect Export / Import

For requirements that cannot be covered by Docusnap Connect, this document will help you. It describes the possibility of creating your own views of the Docusnap database data in the tree structure. It is a guide for Microsoft SQL experienced system administrators.

One view can be used to display data from different tables in the Docusnap database in a common list.

As an application example, a view is created in which all workstations are displayed with the host name and the operating system used. This serves as a basis for adding further information to this view.

2. PREPARATIONS

2.1 IDENTIFY DATA SOURCES

The first step is to identify the data sources (tables and columns) that you need within the view and familiarize yourself with them.

You can **manage** this in **Administration - Customizing - Manage Objects**.

This area contains the structure of the data tree. The data tree is built from meta objects of different categories. The two most common categories are **heading** and **dates**.

The relevant category for you is **data**. On the following screenshot you can see that for the objects of the category **Data** the field **Table** is filled - **tDocu**. In this case, this is the table in which the data of the snapshots of a system are stored.

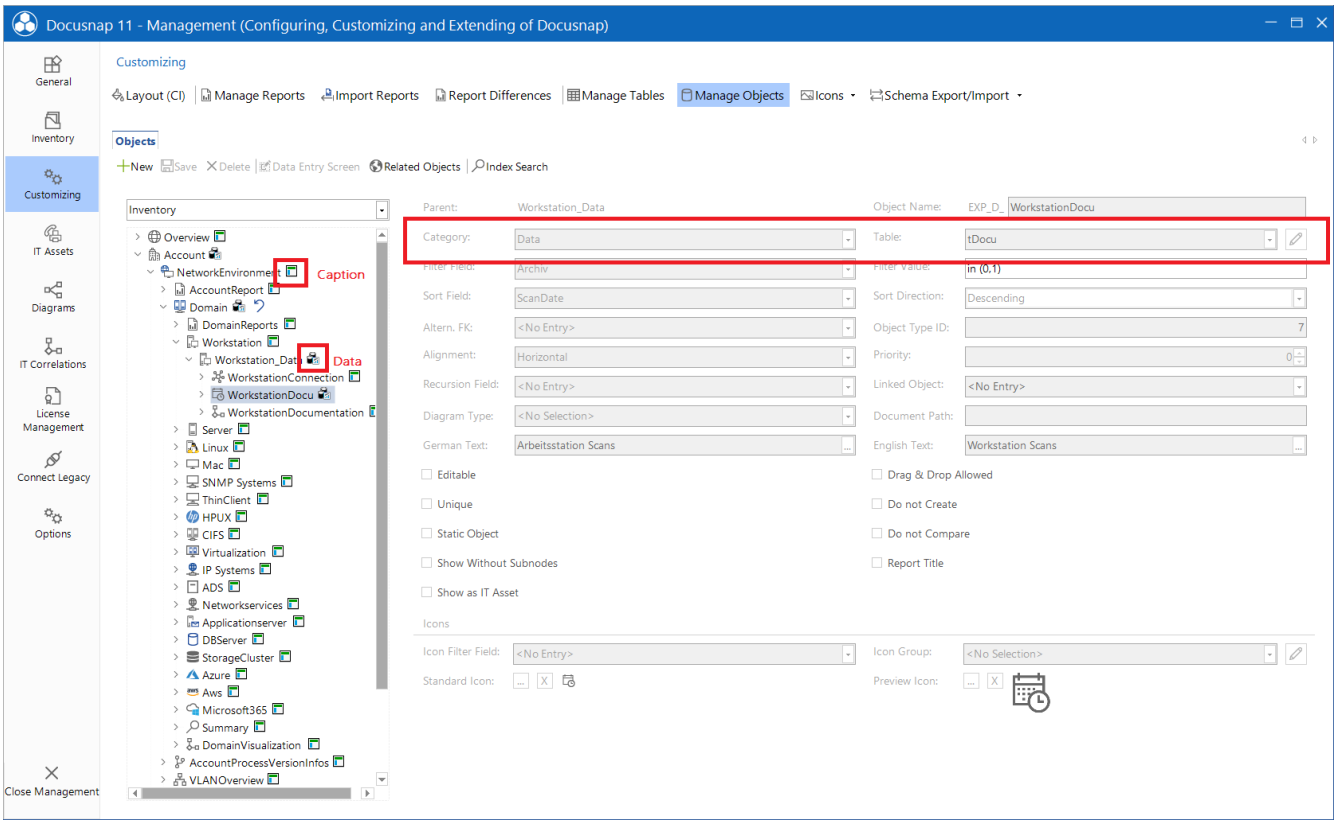


Fig. 1 - Docusnap data tree

Also check the tables for the following objects:

- Account — tAccounts
  - Domain — tDomains
    - Server_Data — tHosts
      - ServerDocu — tDocu
        - ServerDetails_Data — tDocuWindows

If you now look at these tables within SQL Management Studio, you will see the corresponding dependencies between them.

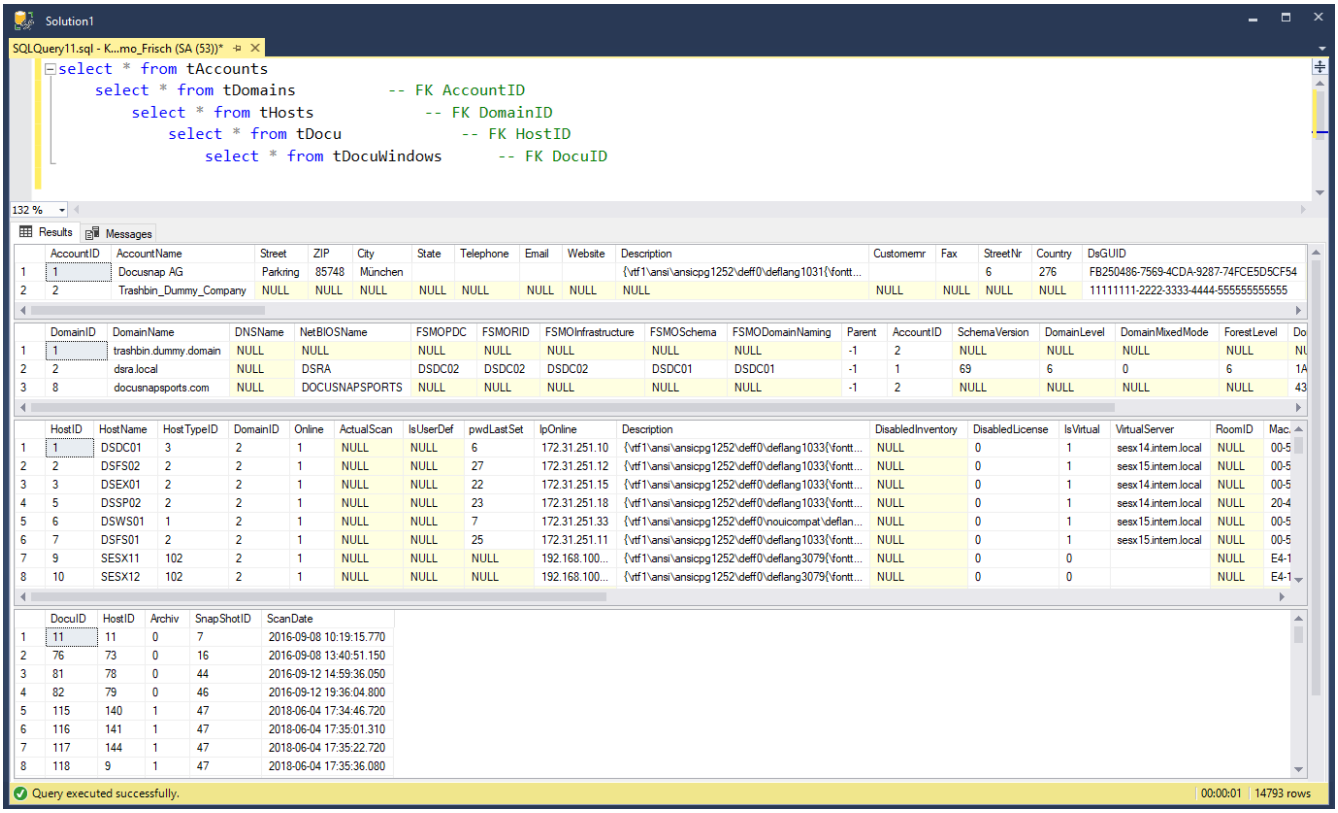


Fig. 2 - Analysis of tables in SSMS

2.2 CREATION OF AN SQL QUERY

In a view, an SQL query is required to determine the data.

This SQL query can be created, for example, with the Query Designer in SQL Management Studio.

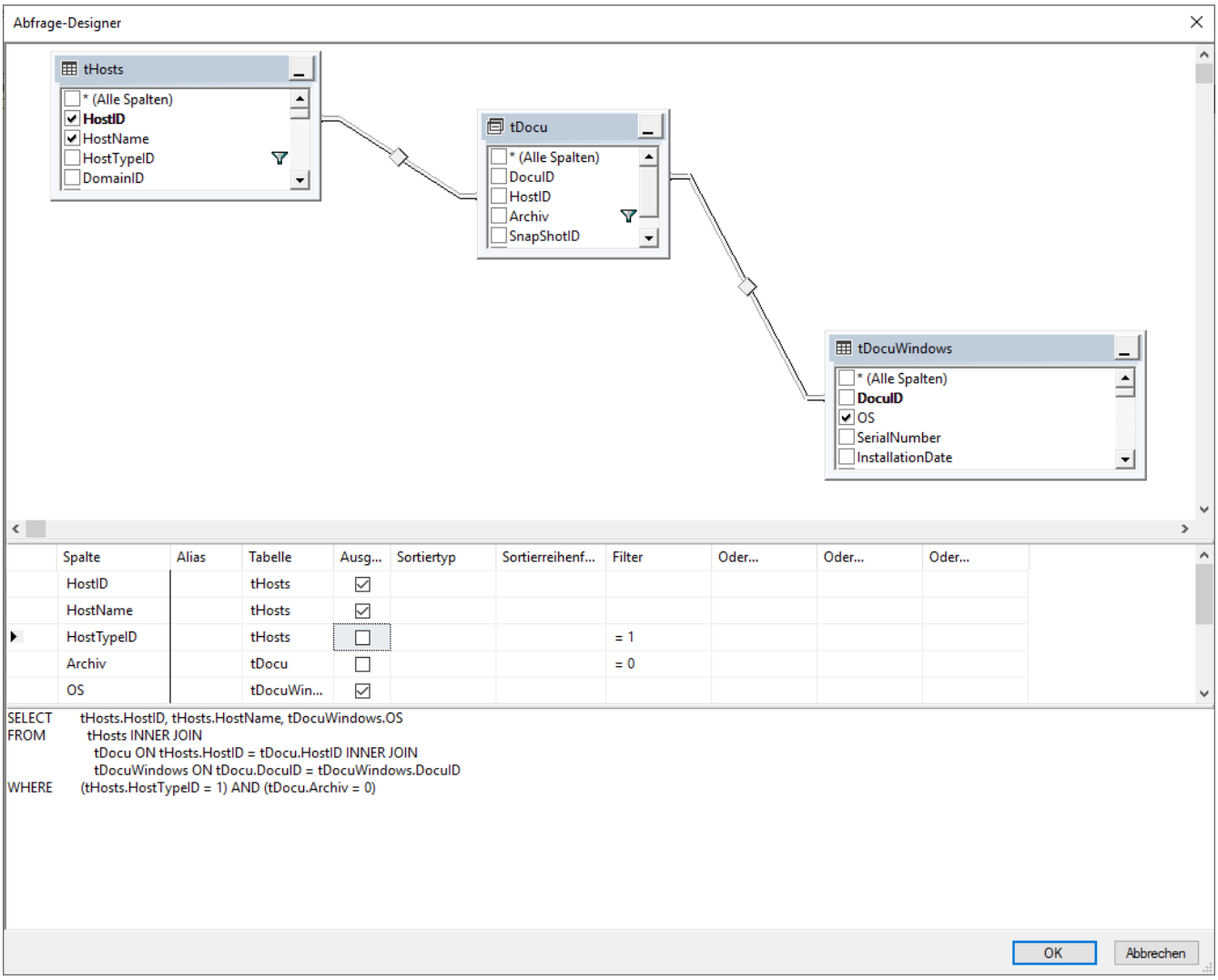


Fig. 3 - Query Designer

The tables required for the application example are

- tHosts contains information about the hosts inventoried (e.g. the host name)
- tDocuWindows contains general information about a host (e.g. the operating system)
- tDocu contains information about the different snapshots of the hosts

Since there can be several snapshots for one host, the query must be restricted to the most recent snapshot by WHERE tDocu.Archiv = 0. With the specification tHosts.HostTypeID = 1 only workstation are selected.

2.3 OPTIMIZATION OF THE SQL QUERY

The SQL query generated by the Query Designer:

```
SELECT        tHosts.HostID, tHosts.HostName, tDocuWindows.OS
FROM            tHosts INNER JOIN
                         tDocu ON tHosts.HostID = tDocu.HostID INNER JOIN
                         tDocuWindows ON tDocu.DocuID = tDocuWindows.DocuID
WHERE        (tHosts.HostTypeID = 1) AND (tDocu.Archiv = 0)
```

can be optimized as follows:

```
SELECT tHosts.HostID, tHosts.HostName,tDocuWindows.OS
FROM tHosts,tDocu,tDocuWindows
WHERE tHosts.HostID = tDocu.HostID
AND           tDocu.DocuID = tDocuWindows.DocuID
AND           tDocu.Archiv = 0
AND           tHosts.HostTypeID = 1
```

This query produces the same result but is much easier to read.

2.4 LIMITING THE SQL QUERY

The SQL query determined so far covers all entries in the Docusnap database, regardless of whether they belong to a client or a domain.

To ensure that the view only contains the devices that belong to the respective area in the tree structure (e.g. a domain), the SQL query must be extended by AND tHosts.DomainID = {FilterID}.

Advanced SQL query:

```
SELECT tHosts.HostID, tHosts.HostName,tDocuWindows.OS
FROM tHosts,tDocu,tDocuWindows
WHERE tHosts.HostID = tDocu.HostID
AND           tDocu.DocuID = tDocuWindows.DocuID
AND           tDocu.Archiv = 0
AND           tHosts.HostTypeID = 1
AND    tHosts.DomainID = {FilterID}
```

The FilterID is a Docusnap internal variable that can be used to restrict a query to the parent object in the tree structure. In the application example, the view is mounted below the domain, whereby the FilterID dynamically contains the value of the domainID of the respective domain where it is called.

If, for example, the view was to be integrated directly under a company, the FilterID would dynamically have the value of the AccountID under which it is located. A comparison of the AccountID of a company with the DomainID of a host leads to a faulty SQL query, which returns either no result or a wrong result.

3. IMPLEMENTATION

3.1 SIGHT APPLICATION

In the Docusnap Management - Customizing, you can create a new view via Manage tables.

- Assign a table name
- A German and English text
- And the SQL statement

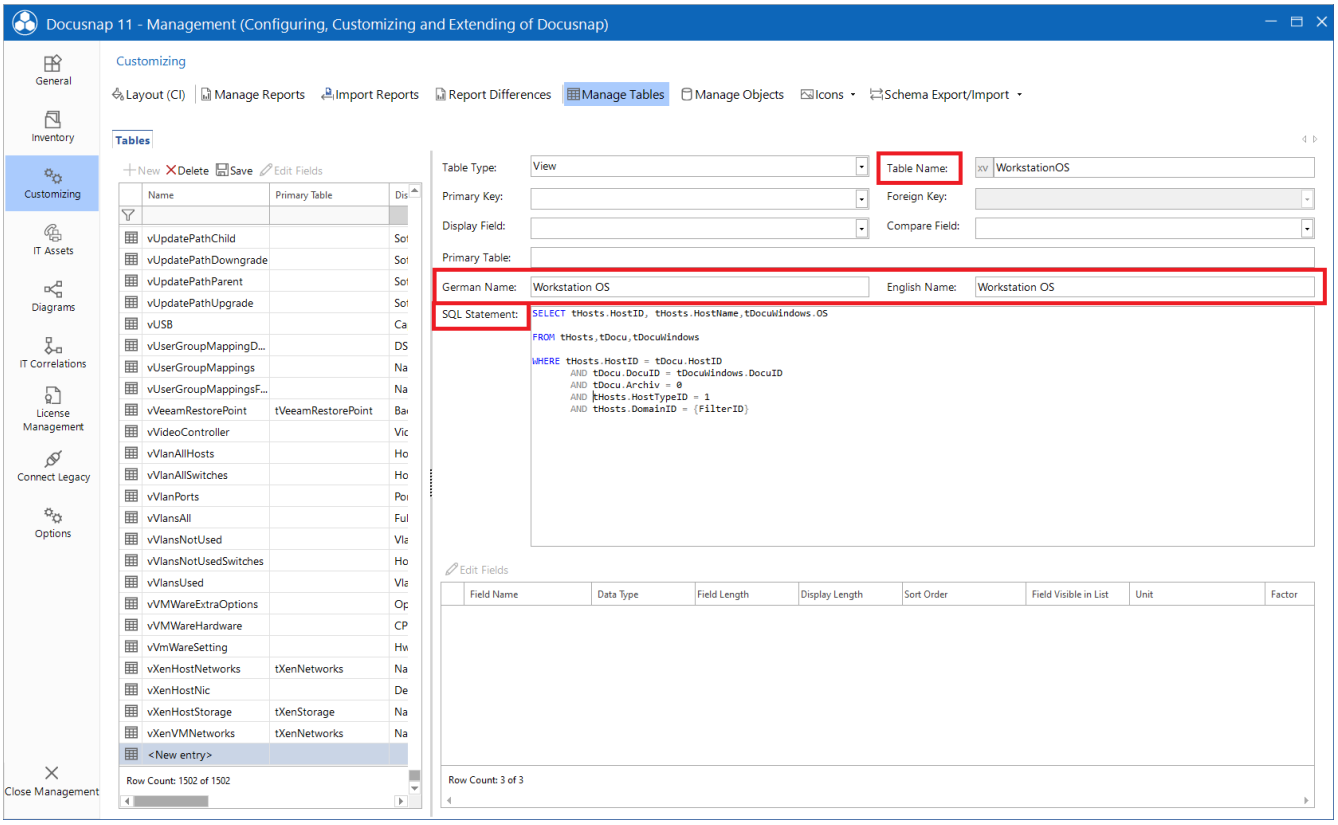


Fig. 4 - Create a view

After creating the view, the next step requires the appropriate fields.

These can be created or imported via **Edit Fields**. Imported means here that you can import the fields that you want to display in the view from existing tables or views.

Alternatively, you can create the fields manually.

The option **Show Field in Lists** defines that a field is also displayed in the list. This option is only available for fields you create yourself.

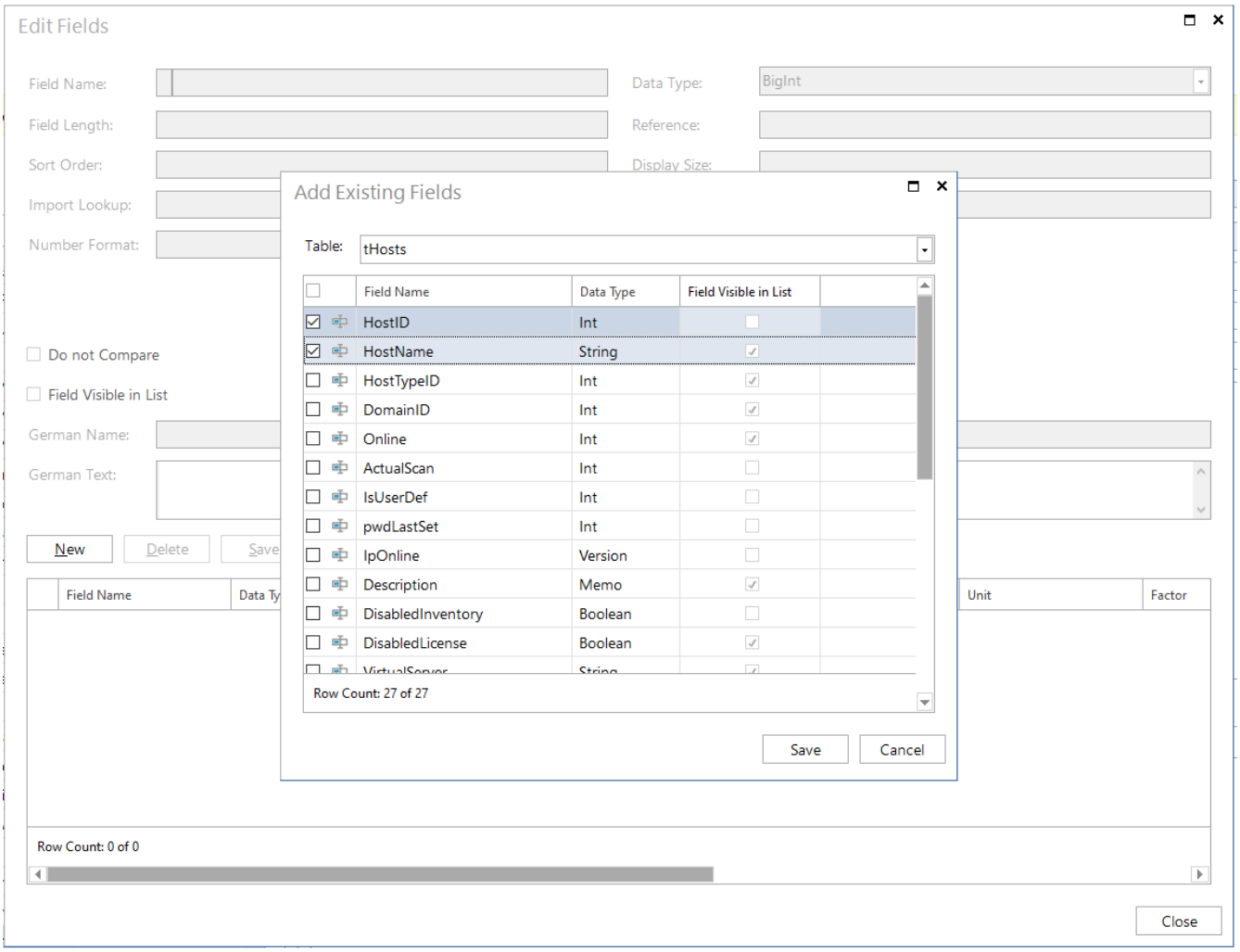


Fig. 5 - Importing columns of the view

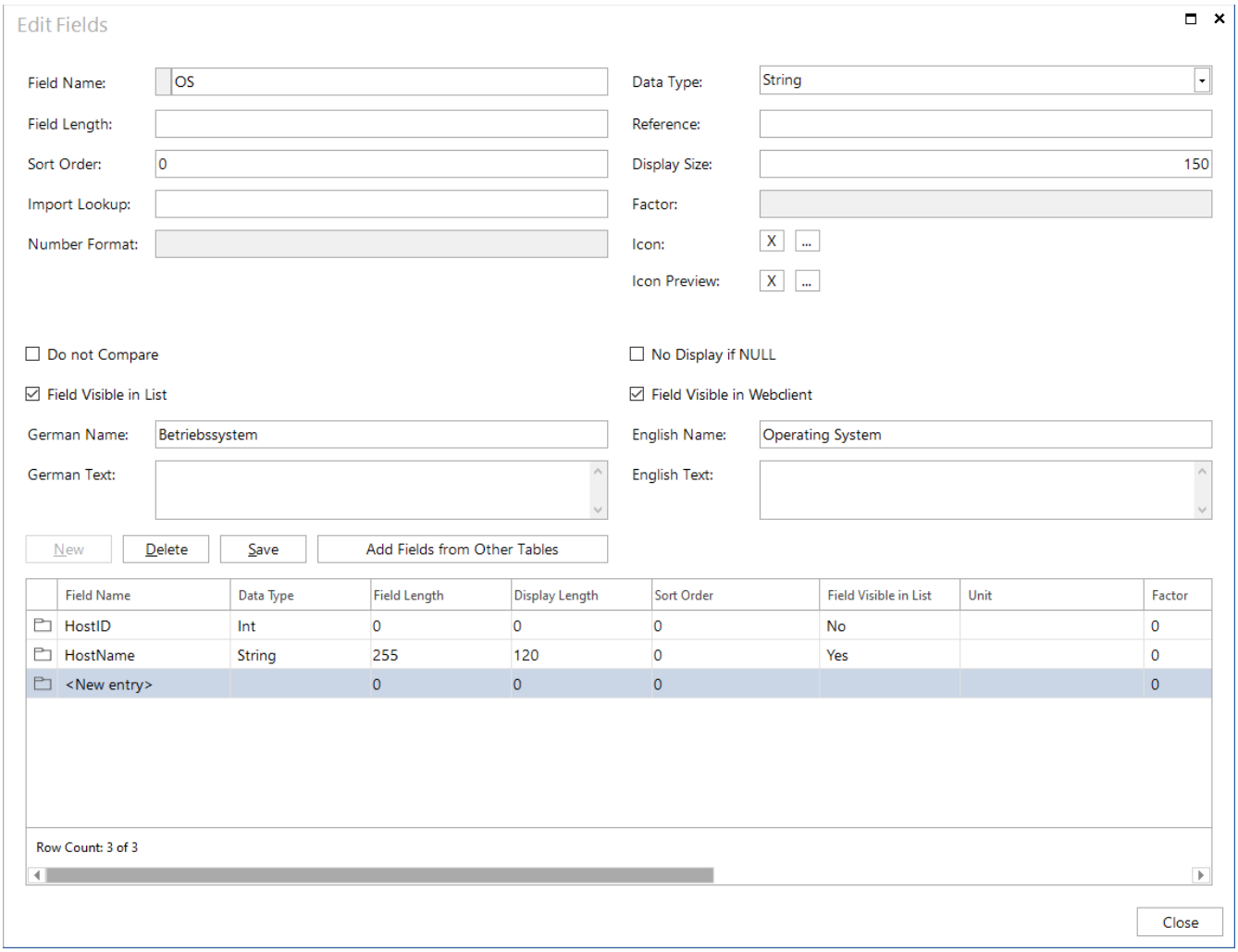


Fig. 6 - Create fields of the view manually

After the creation of the fields, the specifications regarding the primary key and the display field must still be made for the view. It should be noted that a primary key must be selected for the view. However, this does not have to be unique.

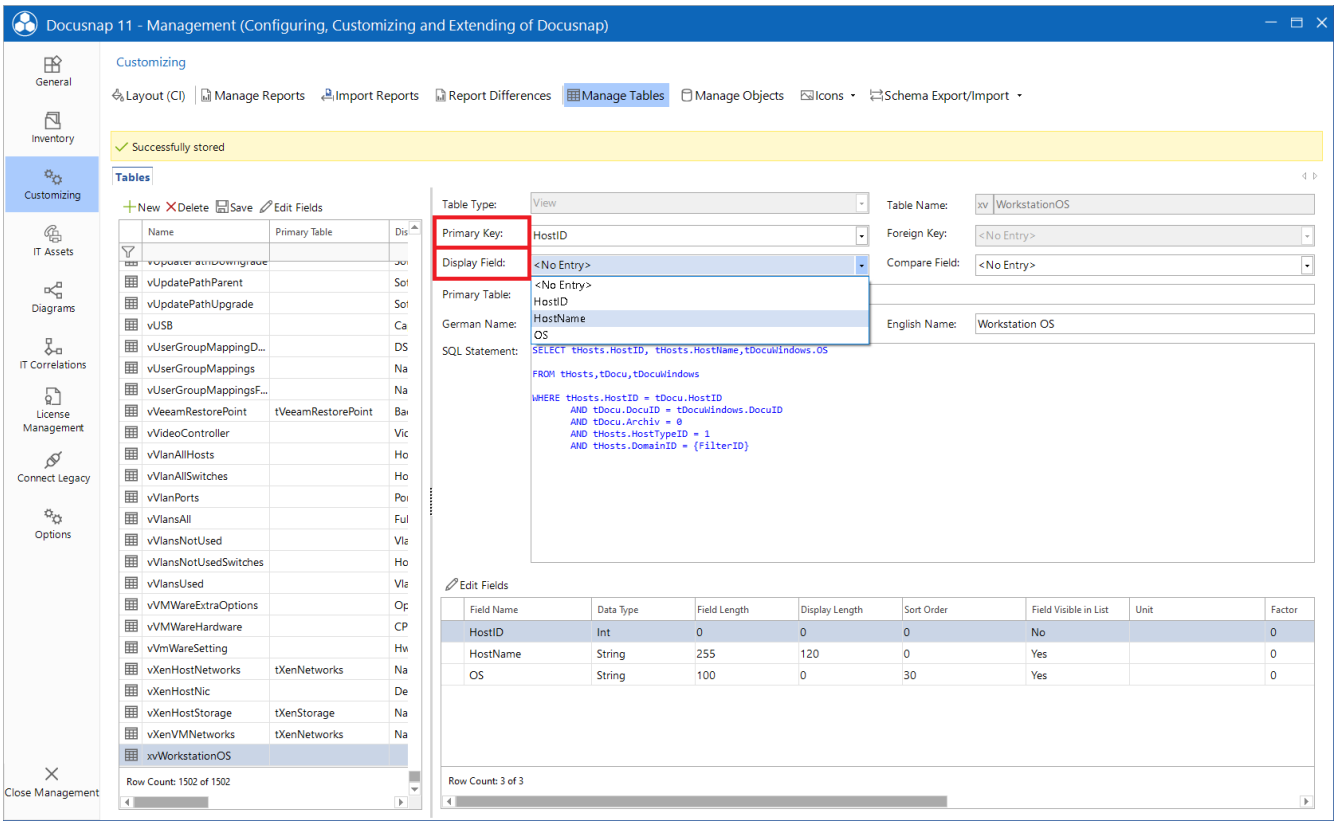


Fig. 7 - Choosing the primary key and display field

3.2 CREATE HEADING

To display the view in the Docusnap tree, you must first create an object of type Heading in the **Customizing - Manage Objects** area.

- To do this, click **New**
- Assign an **object name**
- Select **Heading as category**
- Furthermore, new meta objects need a **German and English text**
- In the Icons section you can create a **standard icon** (16x16) and a **preview icon** (100x100).
    - In our community you can download an icon pack

For more information about the additional available options, please refer to the user manual, which you can open by pressing the F1 key.

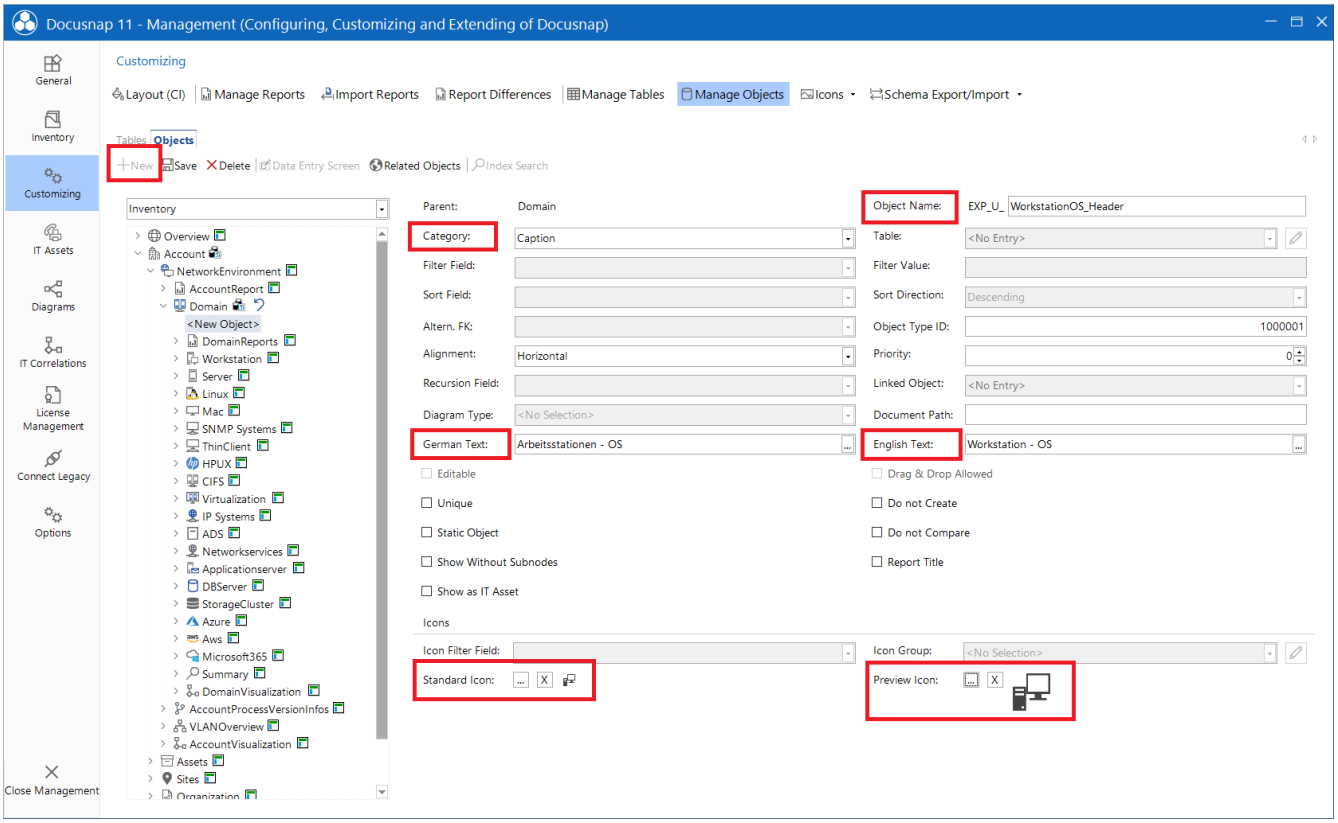


Fig. 8 - Creation of Caption

3.3 CREATE DATA OBJECT

In the next step, a new meta object of the type Data is needed.

- For this click on **New**
- Assign an **object name**
- Select **Data as category**
- Store the previously created view as **table: xv...**
- Create a **sort field**
- Assign a **German and English text** as well as **icons** again

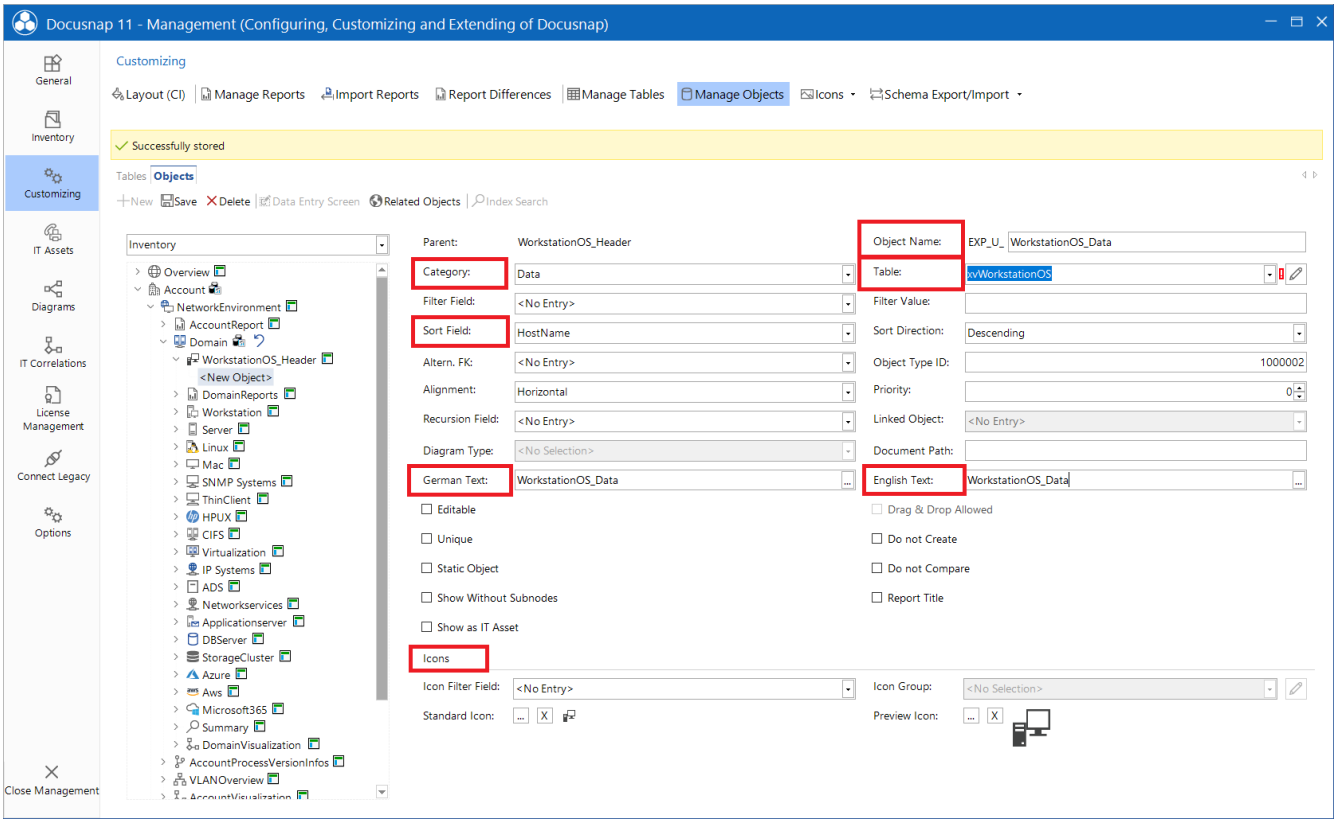


Fig. 9 - Creation of the data object

3.4 RESULT OF THE ADJUSTMENT

There is now a new object in the tree structure, which displays a list of workstations and the respective operating system.

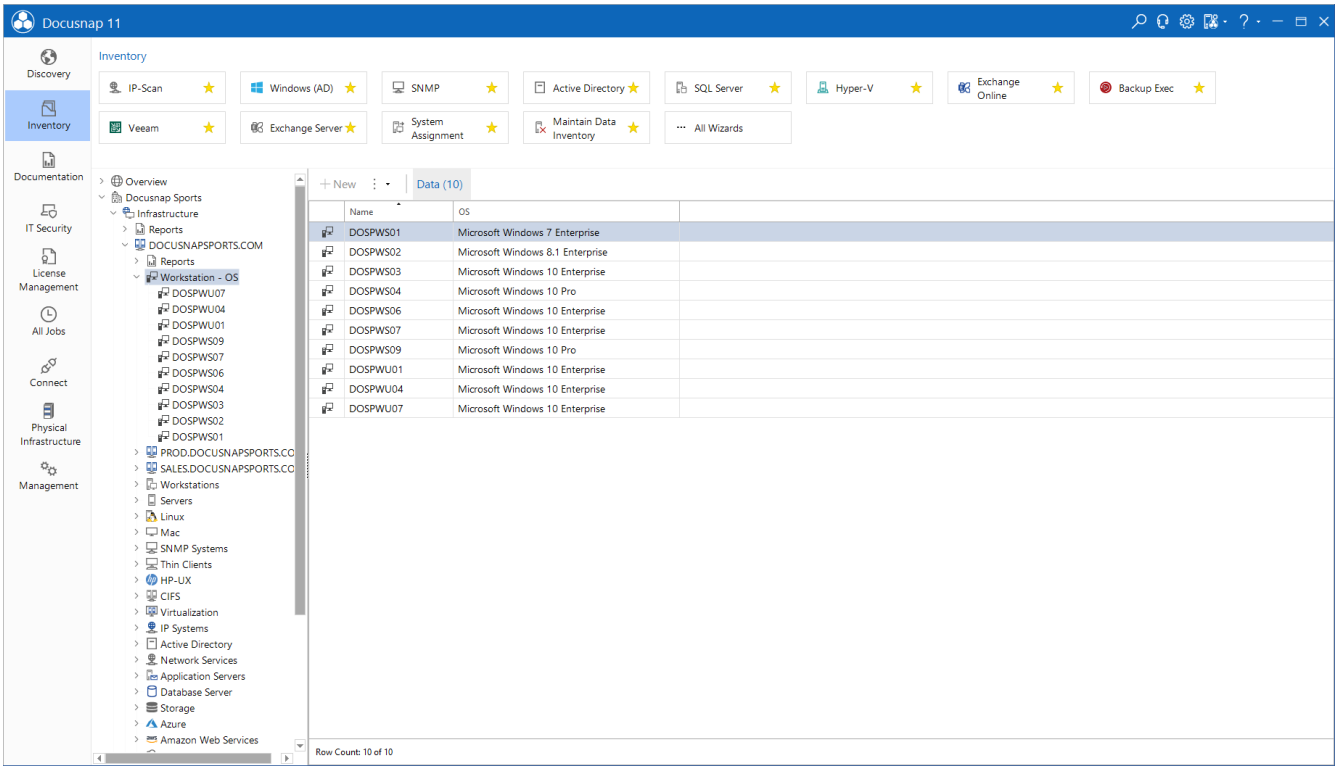


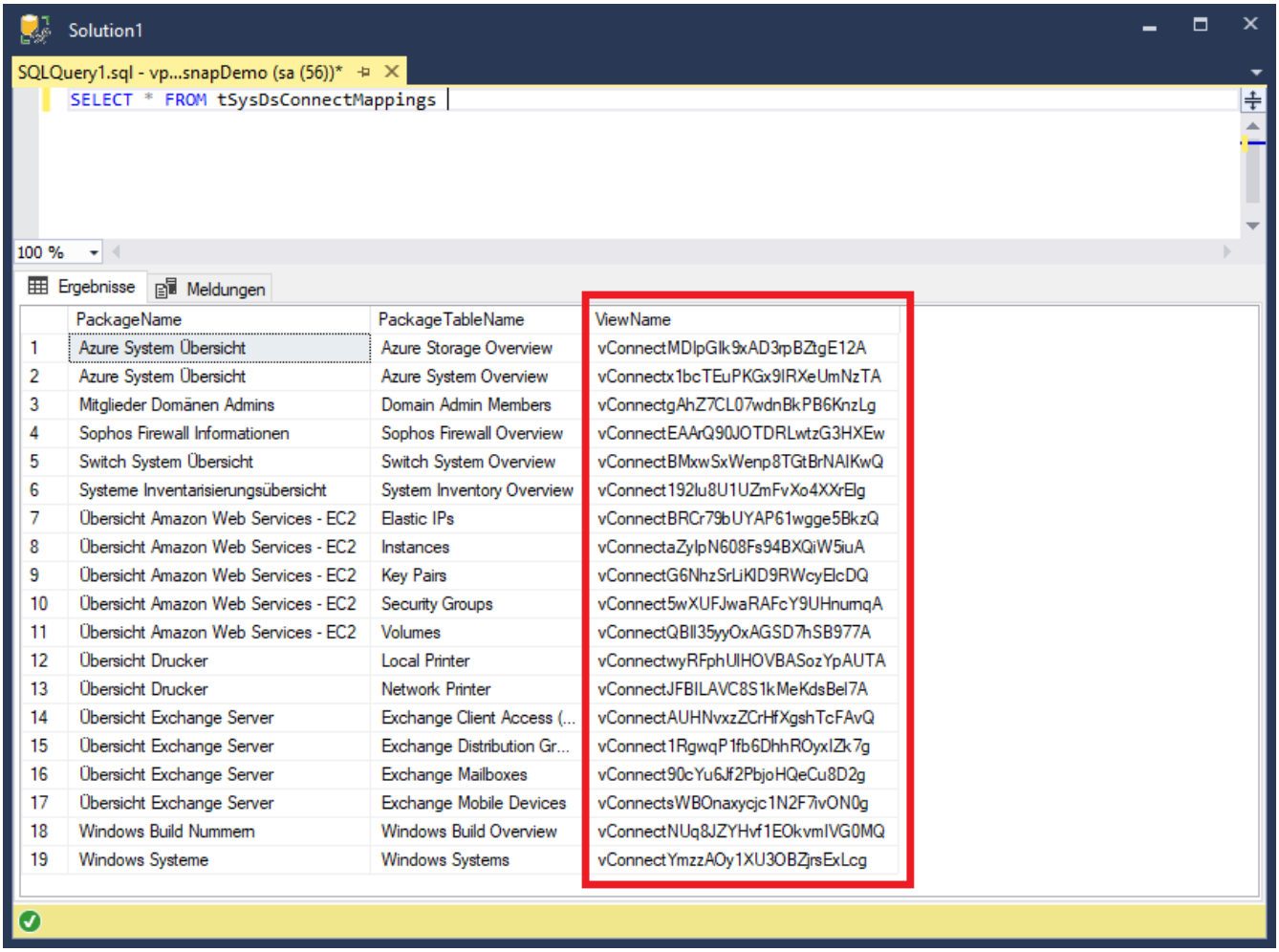
Fig. 10 - Result of the adjustment

The result of a self-created view can also be filtered or exported to an Excel file.

4. FURTHER TOPICS

4.1 OFFER OF VIEWNAMES

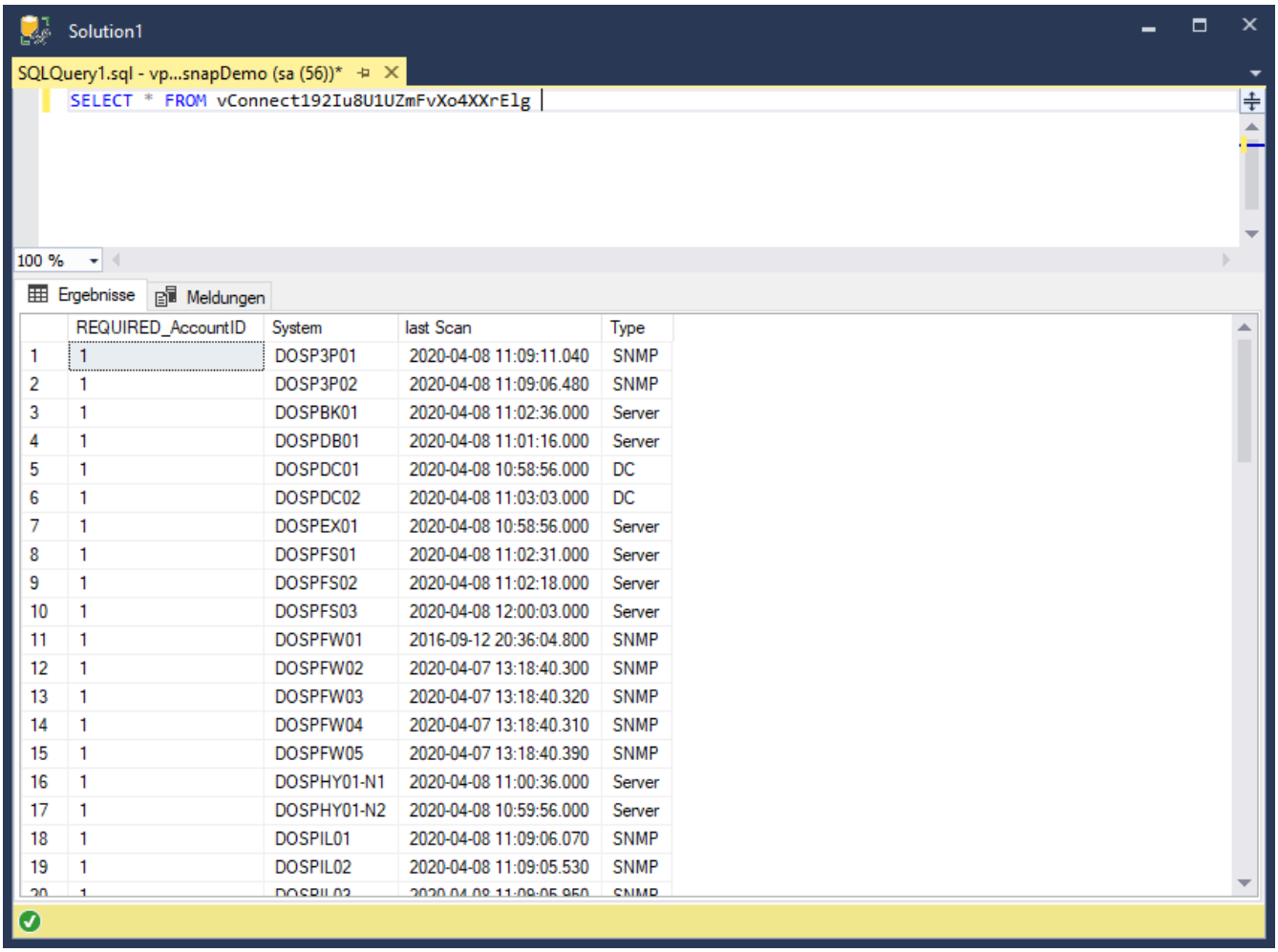
As already described in the introduction, individual requirements can also be easily implemented using Docusnap Connect. Additionally, it is possible to view the previously created Connect packages via the table tSysDsConnectMappings, so that the corresponding name of the Connect package can be used for a view, for example.



	PackageName	PackageTableName	ViewName
1	Azure System Übersicht	Azure Storage Overview	vConnectMDlpGlk9xAD3rpBZtgE12A
2	Azure System Übersicht	Azure System Overview	vConnectx1bcTEuPKGx9lRXeUmNzTA
3	Mitglieder Domänen Admins	Domain Admin Members	vConnectgAhZ7CL07wdnBkPB6KnzLg
4	Sophos Firewall Informationen	Sophos Firewall Overview	vConnectEAArQ90JOTDRLwtzG3HXEw
5	Switch System Übersicht	Switch System Overview	vConnectBMxwSxWenp8TGtBrNAIKwQ
6	Systeme Inventarisierungsübersicht	System Inventory Overview	vConnect192lu8U1UZmFvXo4XXrElg
7	Übersicht Amazon Web Services - EC2	Elastic IPs	vConnectBRCr79bUYAP61wgge5BkzQ
8	Übersicht Amazon Web Services - EC2	Instances	vConnectaZylpN608Fs94BXQiW5iuA
9	Übersicht Amazon Web Services - EC2	Key Pairs	vConnectG6NhzSrLiKlD9RWcyElcDQ
10	Übersicht Amazon Web Services - EC2	Security Groups	vConnect5wXUFJwaRAFcY9UHnumqA
11	Übersicht Amazon Web Services - EC2	Volumes	vConnectQBll35yyOxAGSD7hSB977A
12	Übersicht Drucker	Local Printer	vConnectwyRFphUlHOVBASozYpAUTA
13	Übersicht Drucker	Network Printer	vConnectJFBILAVC8S1kMeKdsBel7A
14	Übersicht Exchange Server	Exchange Client Access (...	vConnectAUHNvxzZCrHfXgshTcFAvQ
15	Übersicht Exchange Server	Exchange Distribution Gr...	vConnect1RgwqP1fb6DhhROyxIZk7g
16	Übersicht Exchange Server	Exchange Mailboxes	vConnect90cYu6Jf2PbjoHQeCu8D2g
17	Übersicht Exchange Server	Exchange Mobile Devices	vConnectsWBOnaxycjc1N2F7ivON0g
18	Windows Build Nummern	Windows Build Overview	vConnectNUq8JZYHvf1EOkvmIVG0MQ
19	Windows Systeme	Windows Systems	vConnectYmzzAOy1XU3OBZjrsExLcg

Fig. 11 - Table with Connect Packages

The view name can be used to list the content of the Connect package and to edit or extend it at any time.



	REQUIRED_AccountID	System	last Scan	Type
1	1	DOSP3P01	2020-04-08 11:09:11.040	SNMP
2	1	DOSP3P02	2020-04-08 11:09:06.480	SNMP
3	1	DOSPBK01	2020-04-08 11:02:36.000	Server
4	1	DOSPDB01	2020-04-08 11:01:16.000	Server
5	1	DOSPDC01	2020-04-08 10:58:56.000	DC
6	1	DOSPDC02	2020-04-08 11:03:03.000	DC
7	1	DOSPEX01	2020-04-08 10:58:56.000	Server
8	1	DOSPFS01	2020-04-08 11:02:31.000	Server
9	1	DOSPFS02	2020-04-08 11:02:18.000	Server
10	1	DOSPFS03	2020-04-08 12:00:03.000	Server
11	1	DOSPFW01	2016-09-12 20:36:04.800	SNMP
12	1	DOSPFW02	2020-04-07 13:18:40.300	SNMP
13	1	DOSPFW03	2020-04-07 13:18:40.320	SNMP
14	1	DOSPFW04	2020-04-07 13:18:40.310	SNMP
15	1	DOSPFW05	2020-04-07 13:18:40.390	SNMP
16	1	DOSPHY01-N1	2020-04-08 11:00:36.000	Server
17	1	DOSPHY01-N2	2020-04-08 10:59:56.000	Server
18	1	DOSPIL01	2020-04-08 11:09:06.070	SNMP
19	1	DOSPIL02	2020-04-08 11:09:05.530	SNMP

Fig. 12 - Table with Connect Packages

LIST OF FIGURES

VERSION HISTORY

Date	Description
April 29, 2020	Version 2.0 - Revision of the HowTos for Docusnap 11
November 4, 2021	Version 2.1 - Adjusted Screenshots