



Customizing – Create Dataview

Extension of the tree structure with own views

TITLE Customizing – Create Dataview
AUTHOR DocuSnap Consulting
DATE 2/28/2020

This document contains proprietary information and may not be reproduced in any form or parts whatsoever, nor may be used by or its contents divulged to third parties without written permission of itelio GmbH. All rights reserved.

CONTENTS

1.	INTRODUCTION	4
2.	PREPARATIONS	5
2.1	CREATION OF AN SQL QUERY	5
2.2	OPTIMIZATION OF THE SQL QUERY	6
2.3	LIMITING THE SQL QUERY	6
3.	IMPLEMENTATION	7
3.1	SIGHT APPLICATION	7
3.2	CREATE HEADING	9
3.3	CREATE DATA OBJECT	10
3.4	RESULT OF THE ADJUSTMENT	11
4.	FURTHER TOPICS	12
4.1	OFFER OF VIEWNAMES	12

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 quickly and easily compile specific data content 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 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.

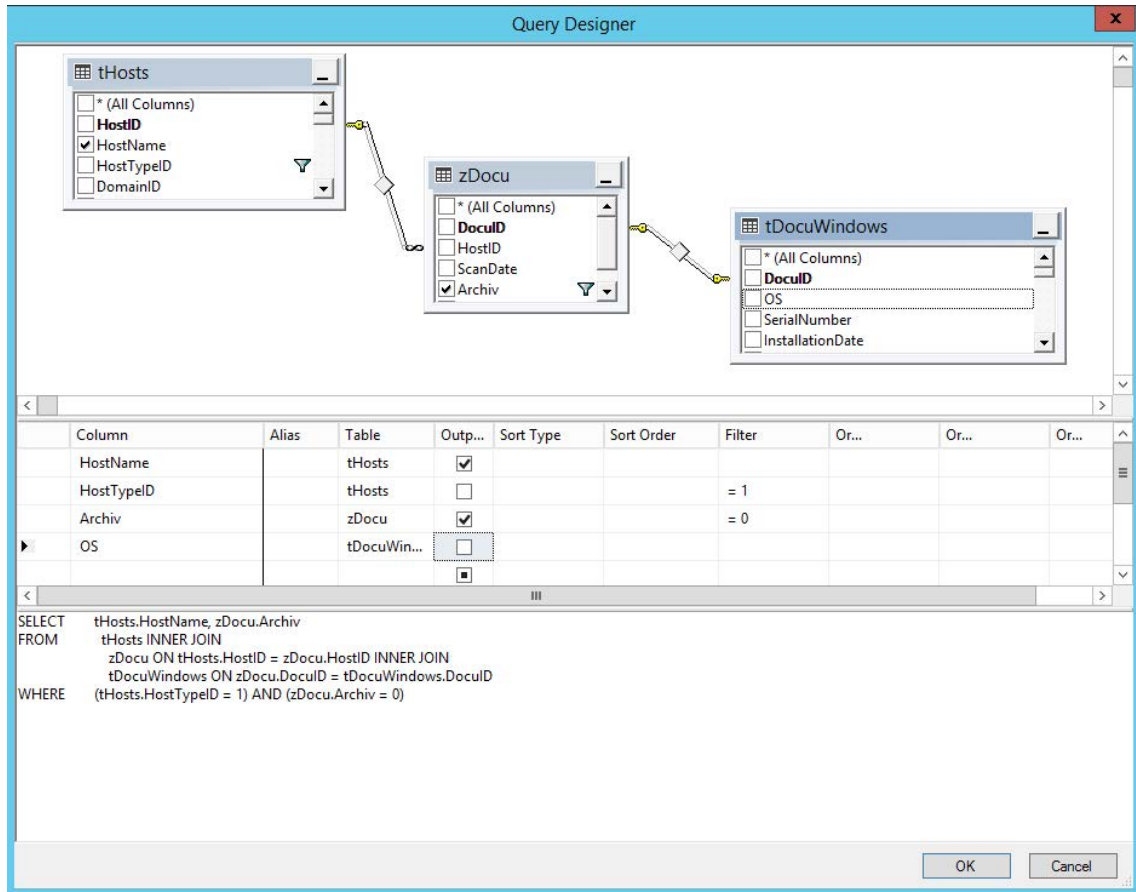


Figure 1 - Query Designer

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 workstations are selected.

To determine the required tables for a query, please refer to the [HowTo for Export and Import \(Docusnap Connect\)](#), which can be downloaded from our Knowledge Base.

2.2 OPTIMIZATION OF THE SQL QUERY

The SQL query generated by the Query Designer:

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

can be optimized as follows:

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

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

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

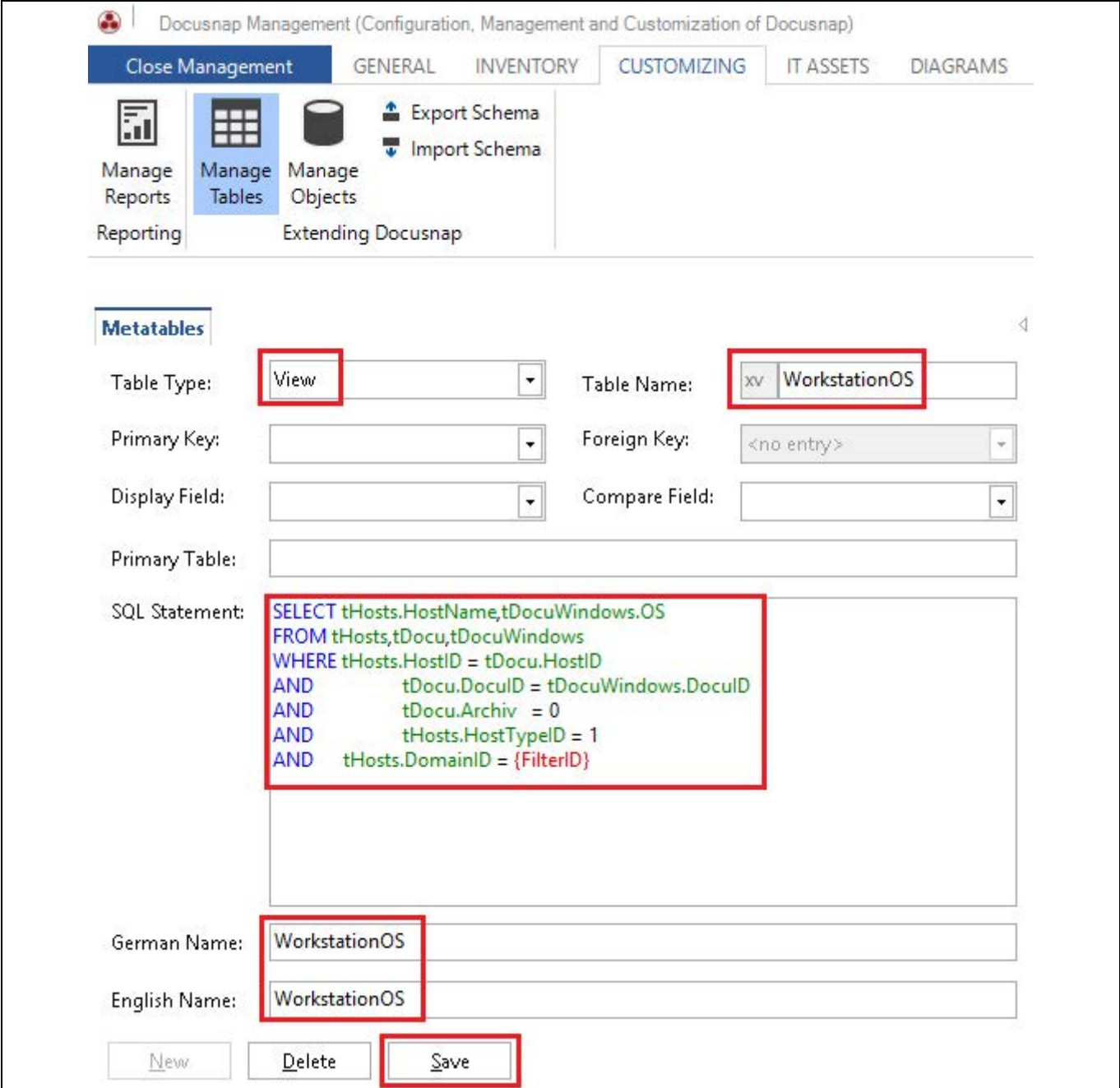
The `FilterID` is a Docusnap internal variable that can be used to restrict a query to the parent object in the tree structure. In the application example, the view is mounted below the domain, whereby the `FilterID` dynamically contains the value of the `domainID` of the respective domain where it is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

If, for example, the view were 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 Customizing administration area, you can create a new view via Manage tables.



The screenshot shows the 'DocuSnap Management (Configuration, Management and Customization of DocuSnap)' interface. The 'CUSTOMIZING' tab is active, and the 'Manage Tables' option is selected. The configuration form for a new table is displayed with the following fields:

- Table Type:** View
- Table Name:** xv WorkstationOS
- Primary Key:** (empty)
- Foreign Key:** <no entry>
- Display Field:** (empty)
- Compare Field:** (empty)
- Primary Table:** (empty)
- SQL Statement:**

```
SELECT 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}
```
- German Name:** WorkstationOS
- English Name:** WorkstationOS

At the bottom, there are three buttons: 'New', 'Delete', and 'Save'.

Figure 2 - Creating a view

First the view must be created and saved.

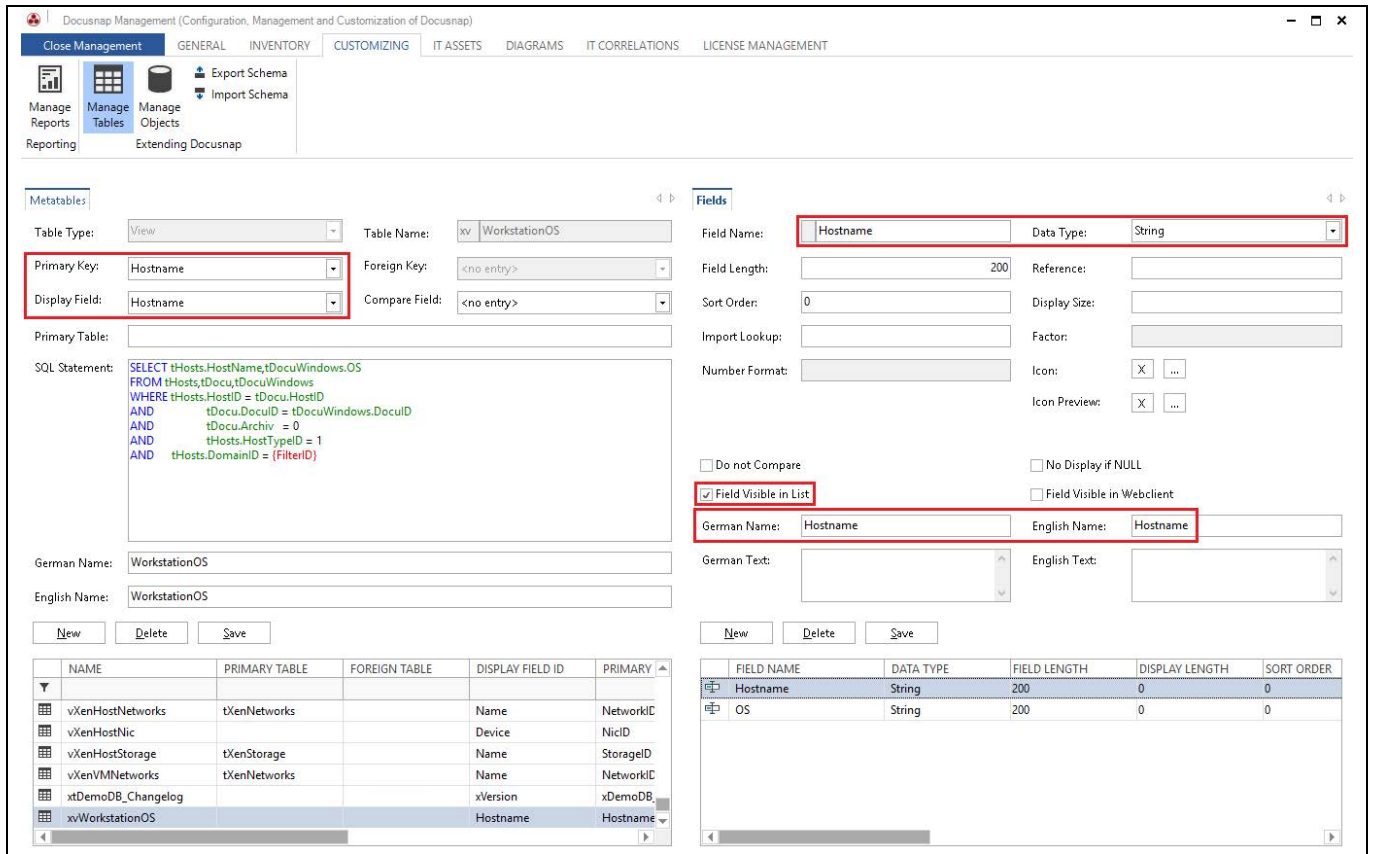


Figure 3 - Layout of the fields

You can then create the fields of the view and define the primary key and the display field of the view.

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

For fields that are already included in the delivery, the option **Field Visible in List** cannot be adjusted, so that a view must also be created for their output. An example of this is the `tHosts.MacAddress` field, which is not displayed in lists.

3.2 CREATE HEADING

To display the view in the Docusnap tree, an object of type Caption must be created in the Customizing area Manage Objects.

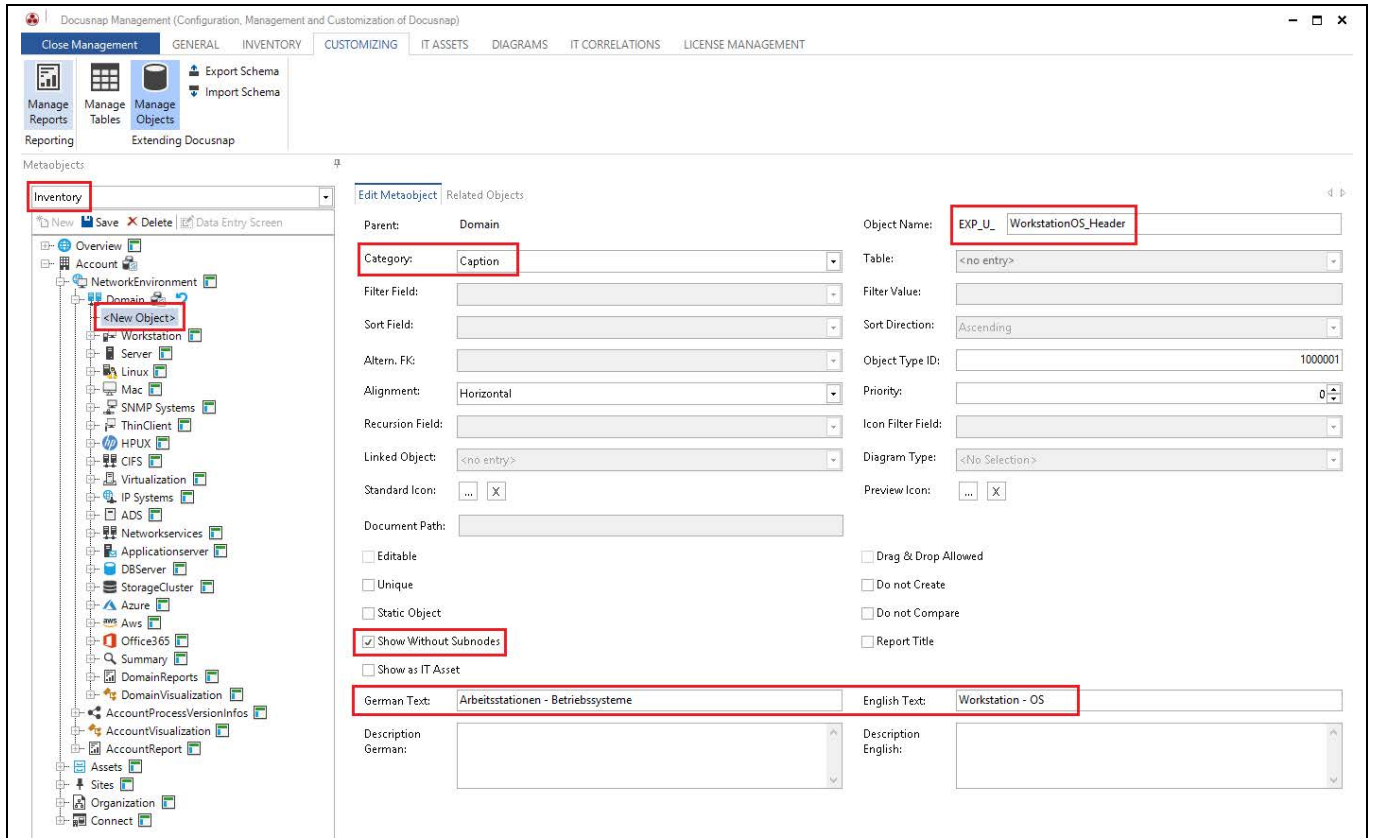


Figure 4 – Creation of Caption

The option Show Without Subnodes must be set so that the heading is also displayed if no data is available for the queries.

3.3 CREATE DATA OBJECT

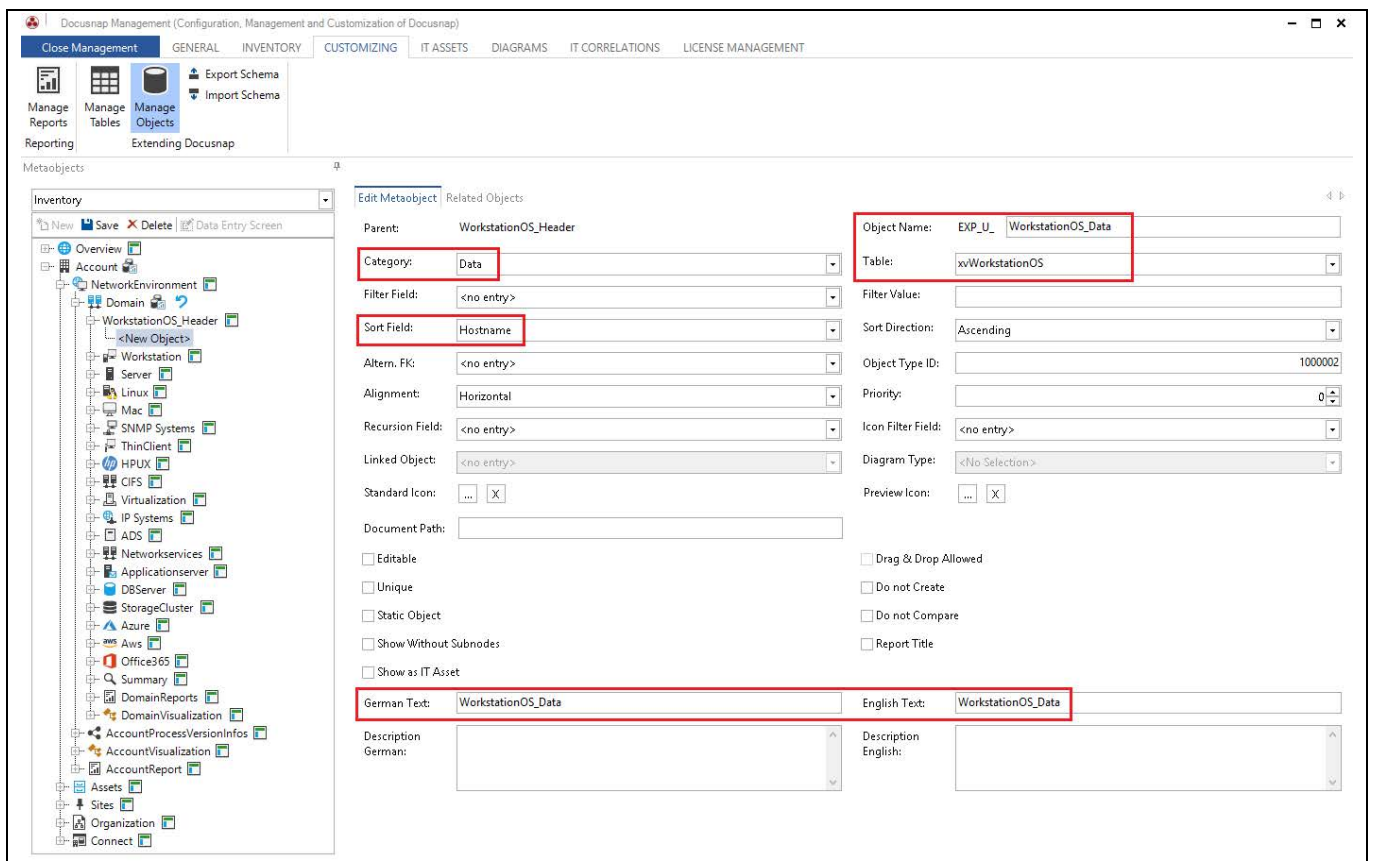


Figure 5 - Creation of the data object

When the data object is created, the name of the view must be specified as a table (here xvWorkstationOS).

For the options marked with an exclamation mark, at least the selection no entry must be selected. For the Sort field option, a column should be selected by which the view is sorted!

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.

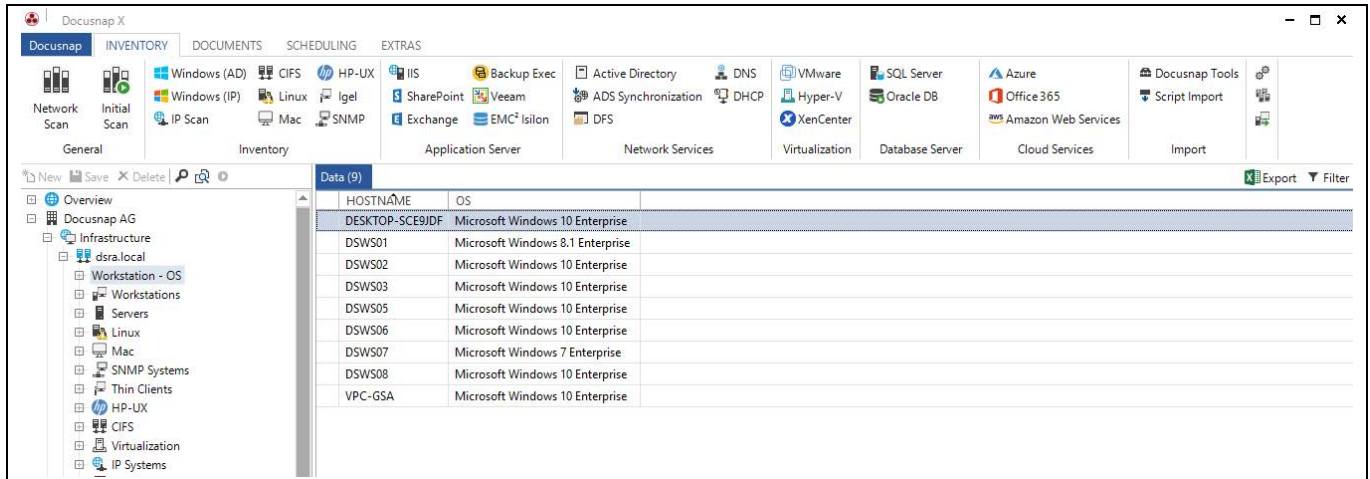


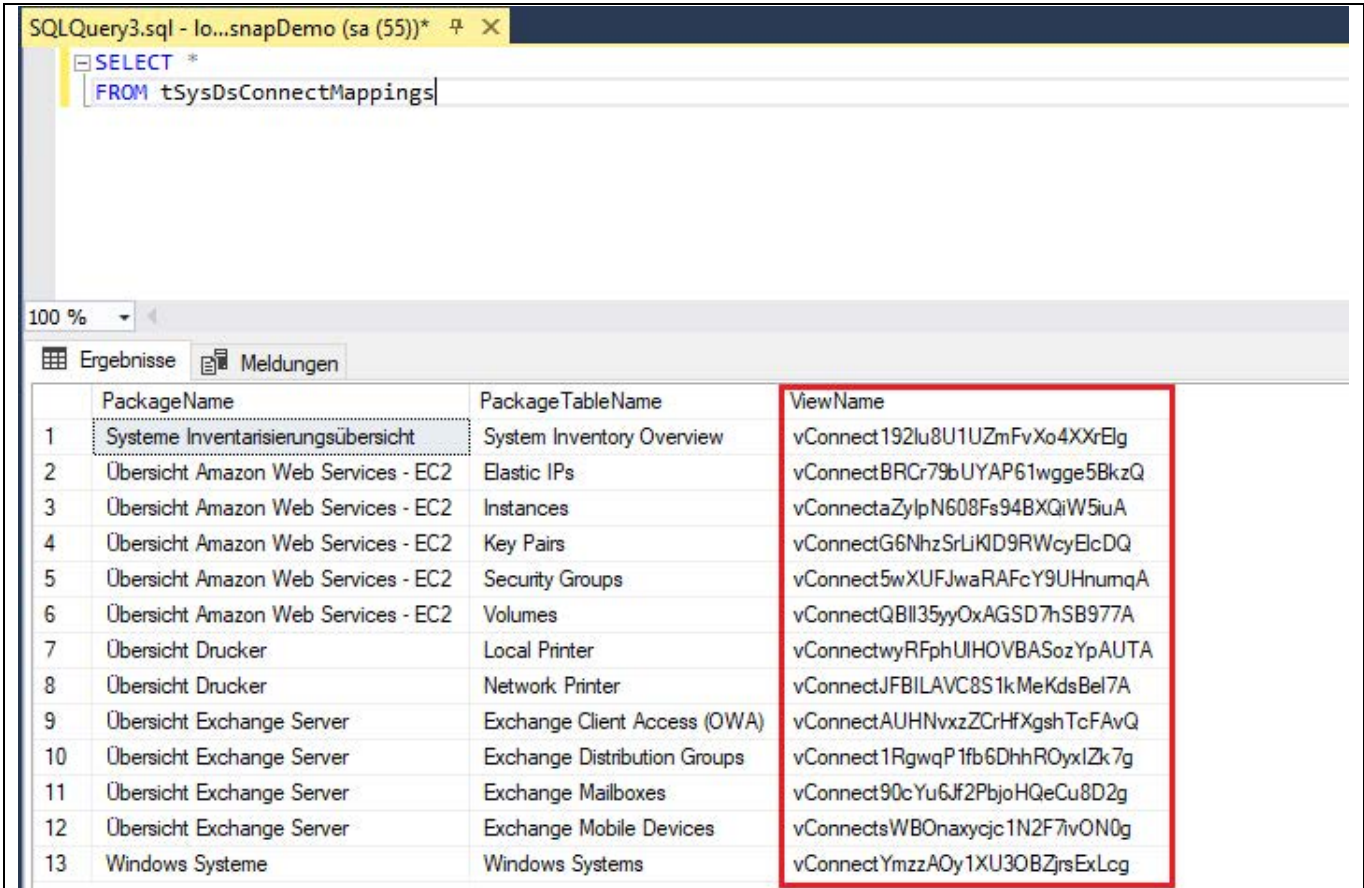
Figure 6 - Result of the adjustment

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.



The screenshot shows a SQL query window with the following query: `SELECT * FROM tSysDsConnectMappings`. Below the query, a table of results is displayed. The table has three columns: `PackageName`, `PackageTableName`, and `ViewName`. The `ViewName` column is highlighted with a red border. The table contains 13 rows of data.

	PackageName	PackageTableName	ViewName
1	Systeme Inventarisierungsübersicht	System Inventory Overview	vConnect192lu8U1UZmFvXo4XXrElg
2	Übersicht Amazon Web Services - EC2	Elastic IPs	vConnectBRCr79bUYAP61wgge5BkzQ
3	Übersicht Amazon Web Services - EC2	Instances	vConnectaZyIpN608Fs94BXQiW5iuA
4	Übersicht Amazon Web Services - EC2	Key Pairs	vConnectG6NhzSrLiKID9RWcyElcDQ
5	Übersicht Amazon Web Services - EC2	Security Groups	vConnect5wXUFJwaRAFcY9UHnumqA
6	Übersicht Amazon Web Services - EC2	Volumes	vConnectQBII35yyOxAGSD7hSB977A
7	Übersicht Drucker	Local Printer	vConnectwyRFphUIHOVBASozYpAUTA
8	Übersicht Drucker	Network Printer	vConnectJFBILAVC8S1kMeKdsBel7A
9	Übersicht Exchange Server	Exchange Client Access (OWA)	vConnectAUHNvxzZCrHfXgshTcFAvQ
10	Übersicht Exchange Server	Exchange Distribution Groups	vConnect1RgwpP1fb6DhhROyxIzk7g
11	Übersicht Exchange Server	Exchange Mailboxes	vConnect90cYu6Jf2PbjoHQeCu8D2g
12	Übersicht Exchange Server	Exchange Mobile Devices	vConnectsWBOanaxycj1N2F7vON0g
13	Windows Systeme	Windows Systems	vConnectYmzzAOy1XU30BZjrsExLcg

Figure 7 - 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.

SQLQuery3.sql - lo...snapDemo (sa (55))*

```

SELECT *
FROM vConnect192Iu8U1UZmFvXo4XXrE1g
        
```

100 %
Ergebnisse
Meldungen

	REQUIRED_AccountID	System	last Scan	Type
1	1	AAIR001	2018-06-13 08:31:23.660	SNMP
2	1	AFWUTM01	2016-09-12 19:36:04.800	SNMP
3	1	ASWIT001	2018-06-13 08:30:55.290	SNMP
4	1	ASWIT002	2018-06-13 08:30:55.860	SNMP
5	1	ASWIT003	2018-06-13 08:30:55.290	SNMP
6	1	ASWIT004	2018-06-13 08:30:55.290	SNMP
7	1	ASWIT005	2018-06-13 08:30:55.300	SNMP
8	1	ASWIT011	2018-06-13 08:31:02.500	SNMP
9	1	ASWIT013	2018-06-13 08:31:21.720	SNMP
10	1	ASWIT014	2018-06-13 08:31:21.770	SNMP
11	1	ASWIT015	2018-06-13 08:31:20.520	SNMP
12	1	ASWIT016	2018-06-13 08:31:21.820	SNMP
13	1	ASWIT017	2018-06-13 08:30:57.050	SNMP
14	1	ASWIT018	2018-06-13 08:30:55.460	SNMP
15	1	CLJ4730OG	2018-06-19 14:35:13.230	SNMP
16	1	CLJM775EG	2018-06-19 14:35:13.230	SNMP

Figure 8 - Content of a Connect Package

LIST OF FIGURES

FIGURE 1 - QUERY DESIGNER.....	5
FIGURE 2 - CREATING A VIEW.....	7
FIGURE 3 - LAYOUT OF THE FIELDS.....	8
FIGURE 4 – CREATION OF CAPTION.....	9
FIGURE 5 - CREATION OF THE DATA OBJECT.....	10
FIGURE 6 - RESULT OF THE ADJUSTMENT.....	11
FIGURE 7 - TABLE WITH CONNECT PACKAGES.....	12
FIGURE 8 - CONTENT OF A CONNECT PACKAGE.....	13

