



Customizing

Create reports

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1. INTRODUCTION

Docusnap takes an inventory of your IT infrastructure using various inventory assistants. Information is collected during these inventories. The output and analysis of this information can be done by means of reports.

Docusnap comes with several reports that provide information in various forms.

- Information about the whole company
- Information about a domain
- Information about a system, application, or service

The following HowTo should give you an introduction to reporting in Docusnap. Reports are created and output in Docusnap with the third-party product **Stimulsoft Report Designer**, which provides its own comprehensive user manual. In addition, you will find further information on the handling of reports in our Configuration Manual - Reporting.

Please note that the HowTo is aimed at experienced Docusnap users with knowledge of SQL and the Docusnap database.

[Chapter 2 deals with](#) the management of the reports. Where can the reports be managed in Docusnap and what options are available here.

[Chapter 3 provides a](#) basic description of the Stimulsoft Report Designer, including the interface, commonly used components, and the structure of a report.

[Chapter 4](#) describes in detail how to create a report. The chapter has several subchapters that describe step by step how to create a report.

- [Identify data sources](#) - which tables from the Docusnap database are required?
- [Prepare data sources](#) - create the necessary SQL queries to be executed within the report
- [Create a new report](#) - create the report in Docusnap
- [Create data sources](#) - Create the data sources within the report
- [Creating the components](#) - Create the necessary components in the report for data output

2. MANAGEMENT OF REPORTS

All reports contained in Docusnap can be found and managed in **Administration - Customizing - Manage Reports**.

When you select a report, you can then find and adjust the name, author, file name and availability in the data tree.

The report selection provides you with the following decision-making options:

- Use customer report, otherwise system report
 - If the report exists in the setting paths, then this is used
- Always use system report
 - The predefined report from the program directory is always used
- Use latest report
 - The modification date of the reports is checked and the current one is used

These settings are relevant if you customize the predefined reports.

You cannot reassign the predefined reports within the tree structure without modification. For this purpose, it is usually necessary to make appropriate adjustments in the report.

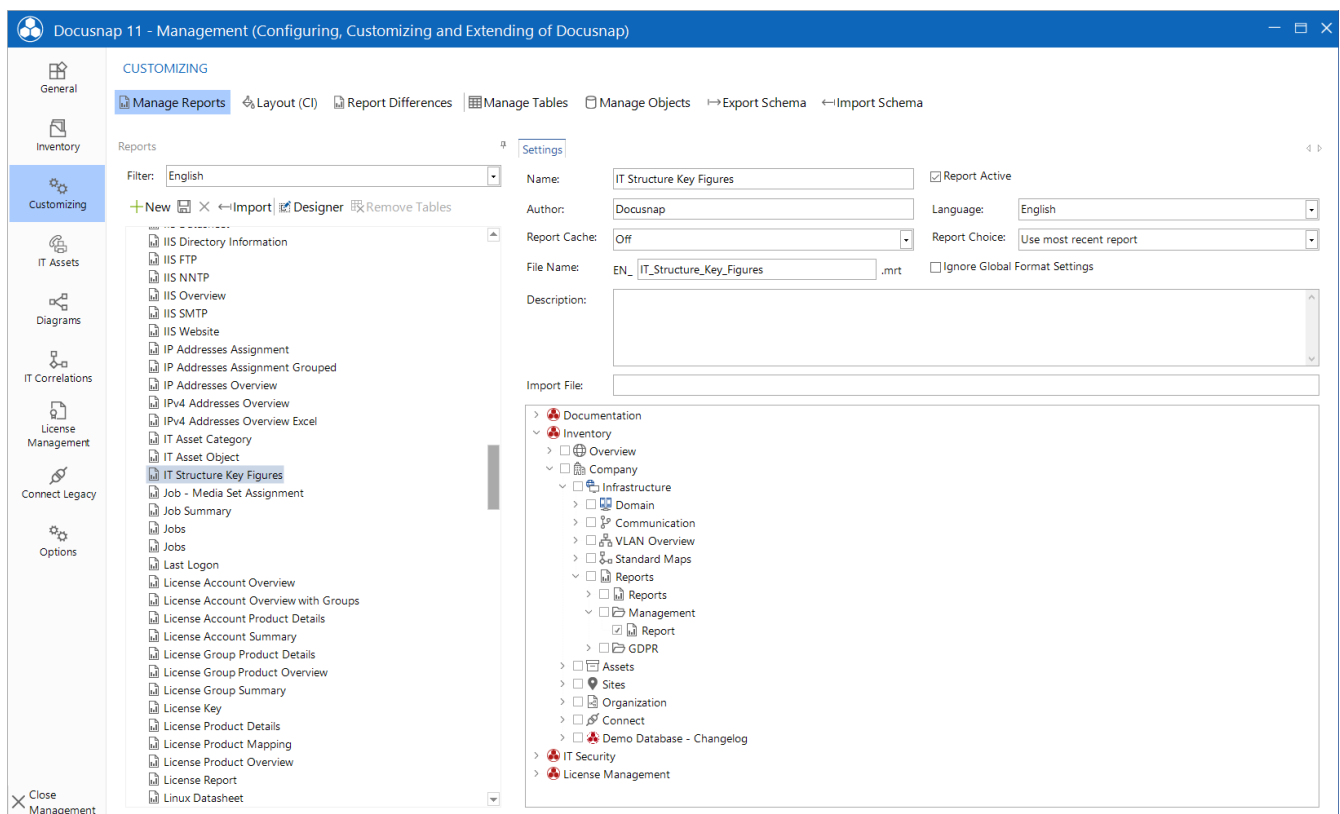


Figure1 - Managing Reports

3. REPORT DESIGNER

You can edit a report within the Report Designer. You can open the Report Designer for existing reports in two ways.

1. Administration - Customizing - Managing Reports - Report Selection - Designer

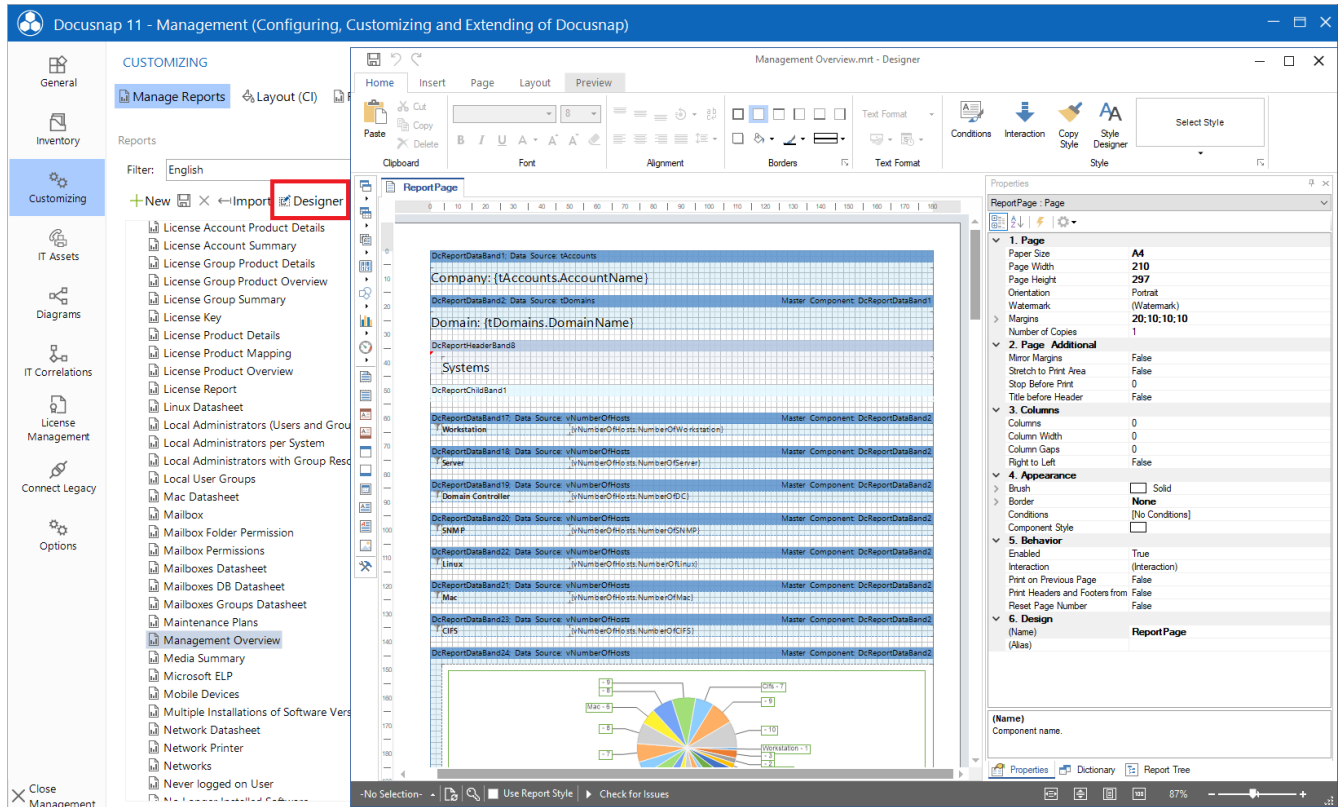
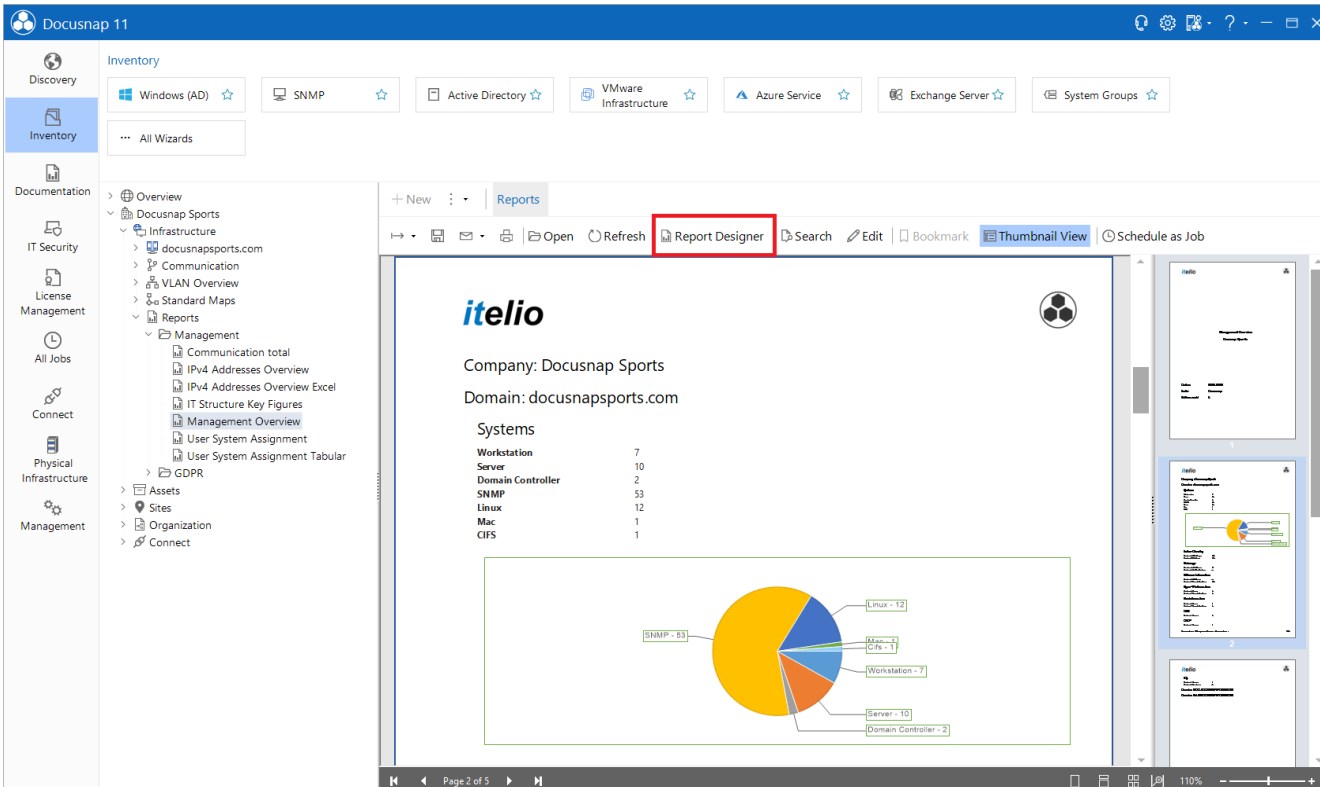


Figure 2 - Opening a report in the Report Designer

2. Opening a report from the tree structure - Reporting - Report Designer



The screenshot shows the Docusnap 11 interface. On the left is a navigation tree with categories like Discovery, Inventory, Documentation, IT Security, License Management, All Jobs, Connect, Physical Infrastructure, and Management. The 'Inventory' section is expanded, showing a tree structure for 'Docusnap Sports' and 'Infrastructure'. The 'Reports' section is highlighted, and the 'Report Designer' tab is selected in the top menu. The main window displays a report for 'itelio' with the following information:

Company: Docusnap Sports
Domain: docusnapsports.com

Systems

System Type	Count
Workstation	7
Server	10
Domain Controller	2
SNMP	53
Linux	12
Mac	1
CIFS	1

Below the table is a pie chart showing the distribution of systems by type. The chart is divided into segments for each system type, with labels indicating the count for each: SNMP - 53, Linux - 12, Workstation - 7, Server - 10, Domain Controller - 2, Mac - 1, and CIFS - 1.

Figure 3 - Opening a report in Report Designer II

3.1 REPORT DESIGNER - SURFACE

The Report Designer consists of five sections:

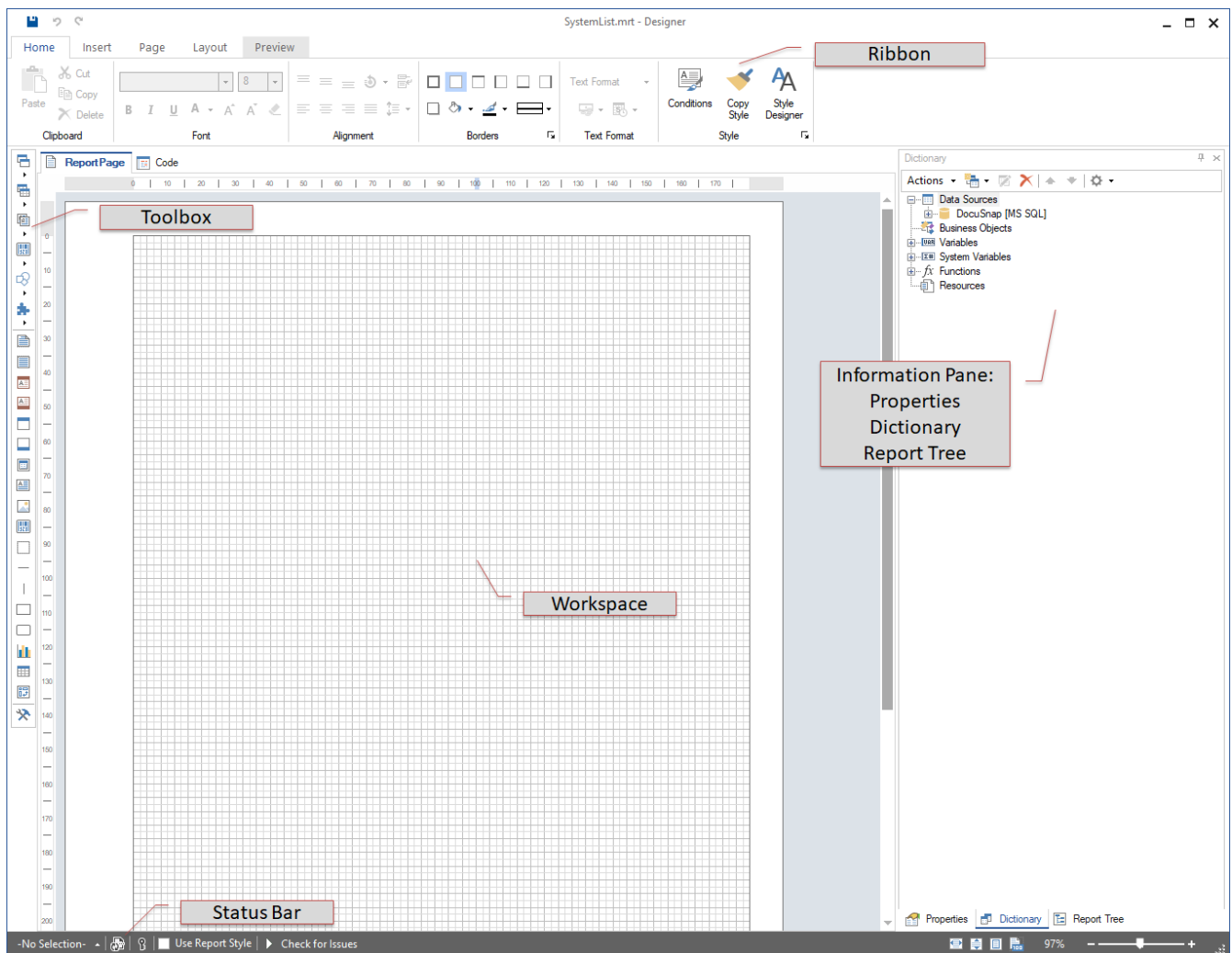


Figure 4 - Areas of the Report Designer

- Ribbon

The Ribbon is used to define settings regarding layouts, font designs and report categories. Furthermore, the preview of a report can be called up here.

- Toolbox

Provides reporting components with which the actual report is constructed. This includes, but is not limited to, data tapes, headers and footers, text fields.

Mainly the components tapes and text fields are used. For example, a data tape acts as a placeholder for the data to be output. The tape is output as often as there is data in the database.

The data header can be used, for example, as a heading / identifier for the data.

- **Workspace**

The components required for the report are stored within the work area.

- **Information Pane**
 - Properties
 - Dictionary
 - Report tree

The **Properties** tab displays properties of selected components. Among other things, the report layout, the component style of text fields, size, position and other properties can be defined here.

The **Dictionary** includes the data sources, variables, system variables and functions used to display information from the Docusnap database within the report. By default there is always a connection to the Docusnap database. But other data sources can also be used.

The **Report tree** shows the hierarchical structure of the report with the components used.

- **Status Bar**

Within the status bar, adjustments to the designs and layout styles used in the report can be made and also switched between them.

3.2 THE STRUCTURE OF REPORTS WITHIN THE REPORT DESIGNER

The following screenshot shows you the structure of the predefined report - Management Overview.

You can find the report in Docusnap as follows: Your company - infrastructure - reports - infrastructure.

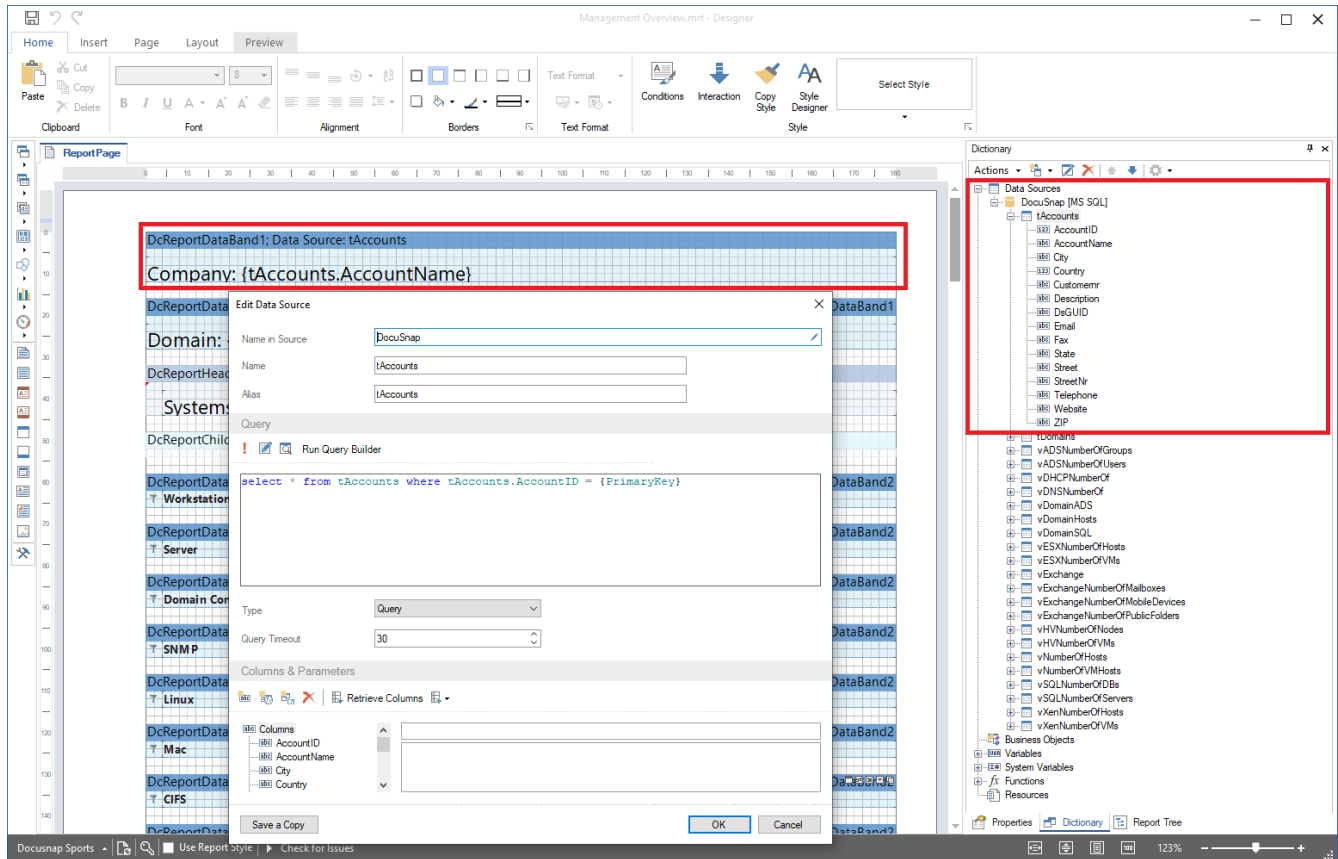


Figure 5 - Report Designer - Report Structure IT Structure Key Figures

In the work area of the report you can see the components used. The first component is a data tape with the data source tAccounts. This data tape displays the name of the company under which the report is called up.

A glance at the Dictionary section shows you the corresponding data source. The data source can be edited and viewed with a double click. As you can see here, the data sources are SQL queries.

```
select * from tAccounts where tAccounts.AccountID = {PrimaryKey}
```

The WHERE area and especially {PrimaryKey} is striking in the present data source.

The reports are linked to an object from the data tree. Each object has a primary key that identifies the data records of the table behind it. To ensure that the reports only display the data that belongs to this object, you can set a filter that compares the primary key with the table. This ensures that the correct data is output for the client, domain, system, etc. The variable {PrimaryKey} is assigned the respective value when the report is executed.

Examples of these primary keys / PrimaryKeys are:

- The output of all domains of a client - Linking the domain to the clients

```
select * from tDomains where tDomains.AccountID = {PrimaryKey}
```

- The output of all inventoried systems from a specific domain - Linking the systems to the higher-level domain

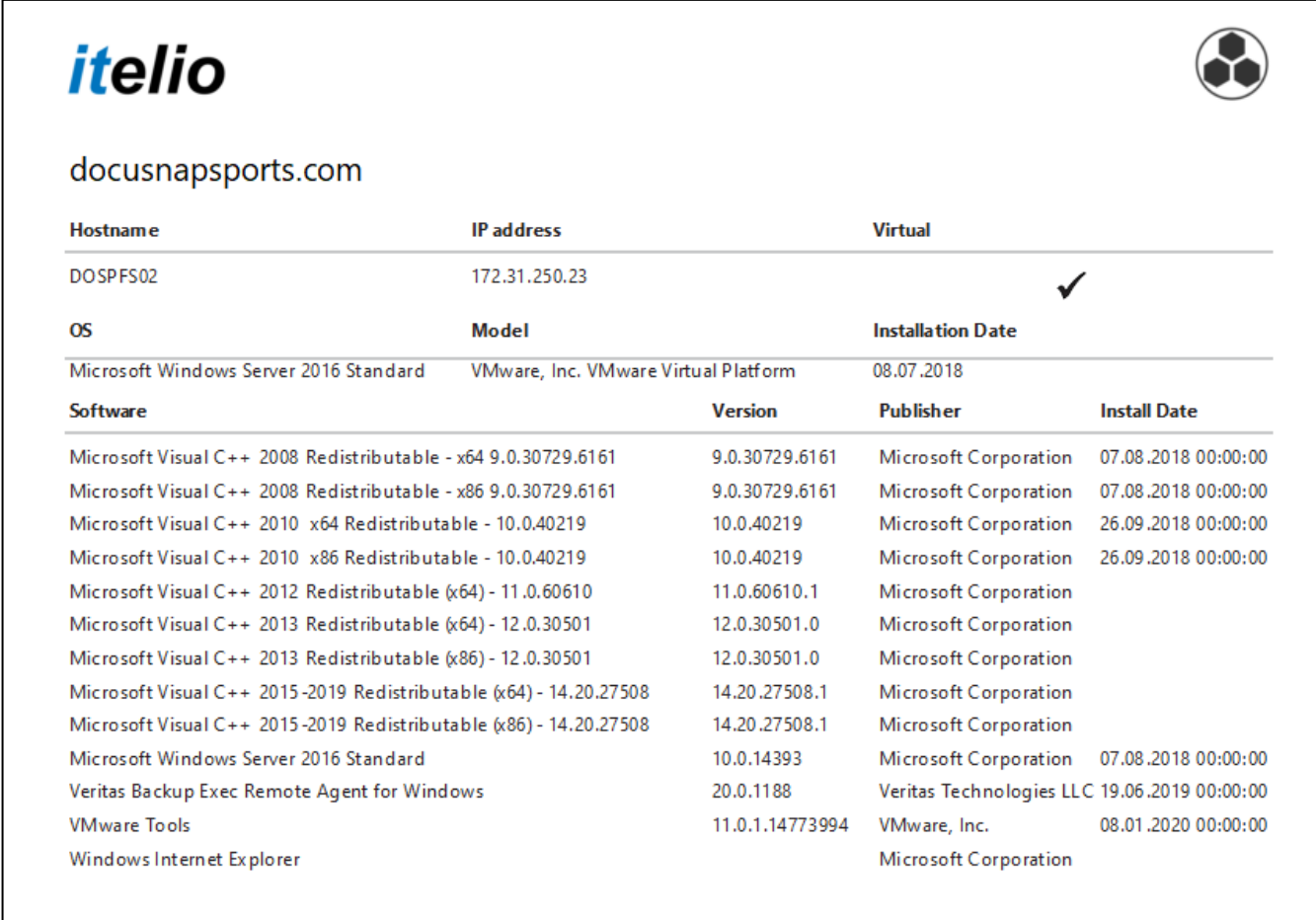
```
select * from tHosts where tHosts.DomainID = {PrimaryKey}
```

4. CREATE YOUR OWN REPORT

The creation of reports is divided into the following steps

- Identify data sources - in which tables is the data stored?
- Prepare data sources in SQL Management Studio
 - Check relationships between the necessary tables
- Create report in administration
- Create and configure data sources
- Create components and drag them into the report
 - Linking components - Transferring variables
- Formatting of the components

In this HowTo we want to create the following report, which can be called within the data tree as follows: Your company - infrastructure - reports - infrastructure.



The screenshot shows a report interface with the 'itelio' logo and a Docusnap icon in the top right. The report title is 'docusnapsports.com'. It contains two tables. The first table has columns 'Hostname', 'IP address', and 'Virtual'. The second table has columns 'OS', 'Model', and 'Installation Date'. Below these is a larger table with columns 'Software', 'Version', 'Publisher', and 'Install Date'.

Hostname	IP address	Virtual
DOSPFS02	172.31.250.23	✓

OS	Model	Installation Date
Microsoft Windows Server 2016 Standard	VMware, Inc. VMware Virtual Platform	08.07.2018

Software	Version	Publisher	Install Date
Microsoft Visual C++ 2008 Redistributable - x64 9.0.30729.6161	9.0.30729.6161	Microsoft Corporation	07.08.2018 00:00:00
Microsoft Visual C++ 2008 Redistributable - x86 9.0.30729.6161	9.0.30729.6161	Microsoft Corporation	07.08.2018 00:00:00
Microsoft Visual C++ 2010 x64 Redistributable - 10.0.40219	10.0.40219	Microsoft Corporation	26.09.2018 00:00:00
Microsoft Visual C++ 2010 x86 Redistributable - 10.0.40219	10.0.40219	Microsoft Corporation	26.09.2018 00:00:00
Microsoft Visual C++ 2012 Redistributable (x64) - 11.0.60610	11.0.60610.1	Microsoft Corporation	
Microsoft Visual C++ 2013 Redistributable (x64) - 12.0.30501	12.0.30501.0	Microsoft Corporation	
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.30501	12.0.30501.0	Microsoft Corporation	
Microsoft Visual C++ 2015-2019 Redistributable (x64) - 14.20.27508	14.20.27508.1	Microsoft Corporation	
Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.20.27508	14.20.27508.1	Microsoft Corporation	
Microsoft Windows Server 2016 Standard	10.0.14393	Microsoft Corporation	07.08.2018 00:00:00
Veritas Backup Exec Remote Agent for Windows	20.0.1188	Veritas Technologies LLC	19.06.2019 00:00:00
VMware Tools	11.0.1.14773994	VMware, Inc.	08.01.2020 00:00:00
Windows Internet Explorer		Microsoft Corporation	

Figure 6 - Self-Created Report

4.1 IDENTIFY DATA SOURCES

The first step is to identify the data sources (tables and columns) that you need within the report 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.

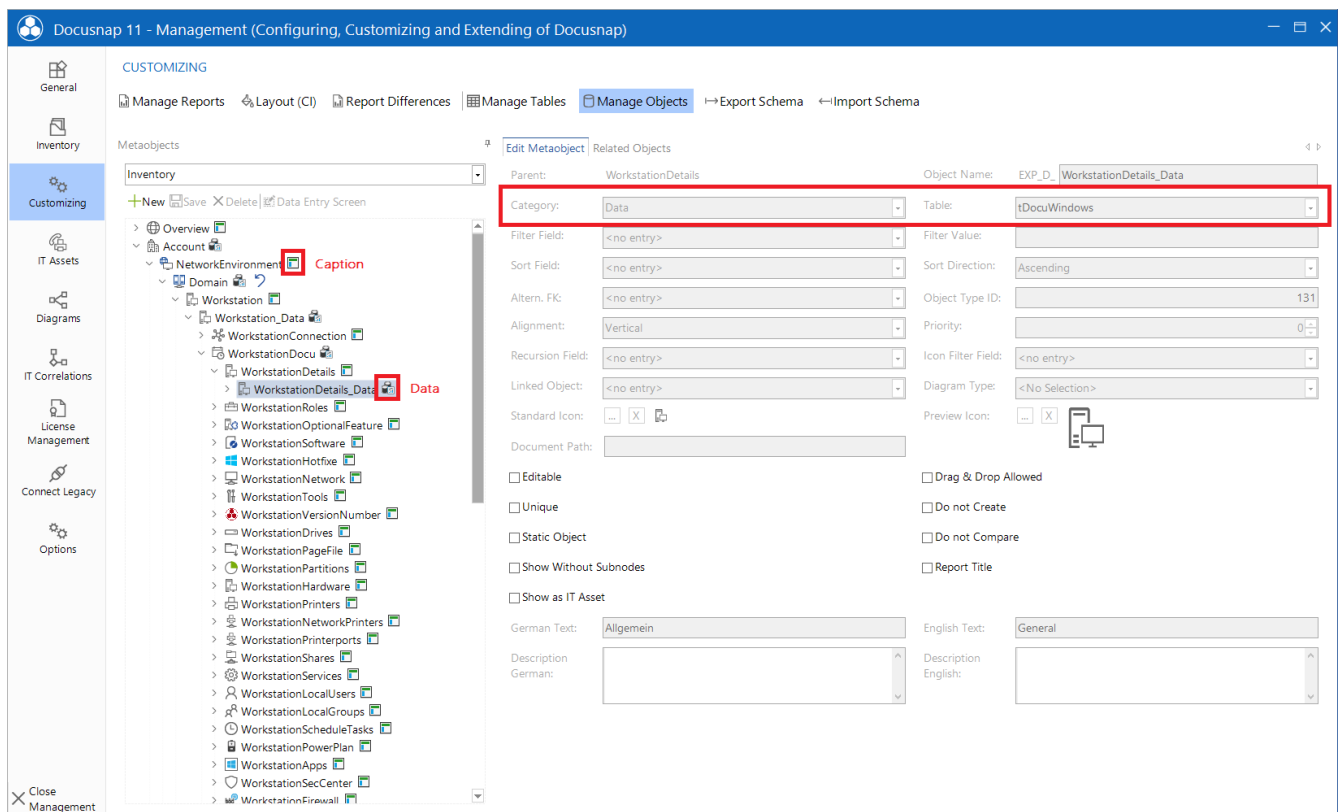


Figure 7 - Docusnap data tree

Also check the tables for the following objects:

- Account
 - domain
 - Server_Data
 - ServerDocu
 - ServerDetails_Data
 - ServerSoftware_Data

tAccounts

tDomains

tHosts

tDocu

tDocuWindows

tSoftware

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

SQLQuery11.sql - K...mo_Frisch (SA (53))

```

select * from tAccounts
select * from tDomains      -- FK AccountID
select * from tHosts        -- FK DomainID
select * from tDocu         -- FK HostID
select * from tDocuWindows  -- FK DocuID
select * from tSoftware     -- FK DocuID
  
```

132 %

AccountID	AccountName	Street	ZIP	City	State	Telephone	Email	Website	Description	Customemr	Fax	StreetNr	Country	DeGUID
1	Docusnap AG		85748	München					(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...			6	276	FB250486-7569-4CDA-9287-74FCE5D5CF54
2	Trashbin_Dummy_Company	NULL	NULL	NULL	NULL	NULL	NULL	NULL		NULL	NULL	NULL	NULL	11111111-2222-3333-4444-555555555555

DomainID	DomainName	DNSName	NetBIOSName	FSMOPDC	FSMORID	FSMOInfrastructure	FSMOSchema	FSMODomainNaming	Parent	AccountID	SchemaVersion	DomainLevel	DomainMixedMode	ForestLevel	Do
1	trashbin.dummy.domain	NULL	NULL	NULL	NULL	NULL	NULL	NULL	-1	2	NULL	NULL	NULL	NULL	NU
2	dsra.local	NULL	DSRA	DSDC02	DSDC02	DSDC02	DSDC01	DSDC01	-1	1	69	6	0	6	1A
8	docusnapports.com	NULL	DOCUSNAPSPTS	NULL	NULL	NULL	NULL	NULL	-1	2	NULL	NULL	NULL	NULL	43

HostID	HostName	HostTypeID	DomainID	Online	ActualScan	IsUserDef	pwdLastSet	IpOnline	Description	DisabledInventory	DisabledLicense	IsVirtual	VirtualServer	RoomID	Mac
1	DSDC01	3	2	1	NULL	NULL	6	172.31.251.10	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx14.intem.local	NULL	00-5
2	DSFS02	2	2	1	NULL	NULL	27	172.31.251.12	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx15.intem.local	NULL	00-5
3	DSEX01	2	2	1	NULL	NULL	22	172.31.251.15	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx14.intem.local	NULL	00-5
4	DSP02	2	2	1	NULL	NULL	23	172.31.251.18	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx14.intem.local	NULL	20-4
5	DSWS01	1	2	1	NULL	NULL	7	172.31.251.33	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx15.intem.local	NULL	00-5
6	DSFS01	2	2	1	NULL	NULL	25	172.31.251.11	(\vtf1\ansi\ansicpg1252\deff0\deflang1033\fontt...	NULL	0	1	sesx15.intem.local	NULL	00-5
7	SESX11	102	2	1	NULL	NULL	NULL	192.168.100...	(\vtf1\ansi\ansicpg1252\deff0\deflang3079\fontt...	NULL	0	0		NULL	E4-1
8	SESX12	102	2	1	NULL	NULL	NULL	192.168.100...	(\vtf1\ansi\ansicpg1252\deff0\deflang3079\fontt...	NULL	0	0		NULL	E4-1

DocuID	HostID	Archiv	SnapShoID	ScanDate
1	11	0	7	2016-09-08 10:19:15.770
2	76	0	16	2016-09-08 13:40:51.150
3	81	0	44	2016-09-12 14:59:36.050
4	82	0	46	2016-09-12 19:36:04.800
5	115	140	47	2018-06-04 17:34:46.720
6	116	141	1	2018-06-04 17:35:01.310
7	117	144	1	2018-06-04 17:35:22.720
8	118	9	47	2018-06-04 17:35:36.080

DocuID	OS	SerialNumber	InstallationDate	ModelType	ServicePack	HostLanguage	ActiveUser	TimeZone	ScreenSaverPassword	AppLog
1	Microsoft Windows 10 Enterprise	VMware-xxx xxx xxx xxx xxx xxx xxx xxx...	2017-05-15 00:00:00.000	VMware, Inc. VMware Virtual Platform		1033	DSWS02\admin	60	NULL	20971
2	Microsoft Windows 10 Enterprise	VMware-xxx xxx xxx xxx xxx xxx xxx xxx...	2018-06-06 00:00:00.000	VMware, Inc. VMware Virtual Platform		1033	VPC-GSA\admin	60	NULL	20971
3	Microsoft Windows Server 200...	VMware-xxx xxx xxx xxx xxx xxx xxx xxx...	2010-06-18 00:00:00.000	VMware, Inc. VMware Virtual Platform	Service Pa...	1033	DSRA\FamA...	60	NULL	20971
4	Microsoft Windows 10 Enterprise	VMware-xxx xxx xxx xxx xxx xxx xxx xxx...	2018-02-27 00:00:00.000	VMware, Inc. VMware Virtual Platform		1033		60	NULL	20971
5	Microsoft Windows Server 200	VMware-xxx xxx xxx xxx xxx xxx xxx xxx...	2010-06-18 00:00:00.000	VMware, Inc. VMware Virtual Platform	Service Pa	1033		60	NULL	20971

Query executed successfully. KRE-VPC-PROD1 (14.0 RTM) SA (53) DocusnapDemo_Frisch 00:00:01 14793 rows

Figure 8 - Analysis of tables in SSMS

4.2 PREPARE DATA SOURCES

For the report we need four data sources, which are listed below. Details and explanations of these data sources can be found in the following chapters.

1. Domain output - filtered to the client's domains

```
SELECT tDomains.*
FROM tDomains
WHERE tDomains.AccountID = {PrimaryKey}
```

2. Output of Windows Server - filtered to the above domain

```
SELECT *
FROM tHosts
WHERE tHosts.HostTypeID in (2,3)           -- Filtering Windows servers and DCs
AND tHosts.DomainID = @DomainID
```

3. Output of general information - filtered to the appropriate Windows server

```
SELECT *
FROM tDocuWindows, tDocu
WHERE tDocuWindows.DocuID = tDocu.DocuID
AND tDocu.archive = 0                      -- Filtering to final scan!
AND tDocu.HostID = @HostID
```

4. Installed software - filtered on the appropriate Windows server

```
SELECT *
FROM tSoftware, tDocu
WHERE tSoftware.DocuID = tDocu.DocuID
AND tDocu.archive = 0                      -- Filtering to final scan!
AND tDocu.HostID = @HostID
```

4.3 CREATING THE REPORT

The new report is created in Administration - Customizing - Manage Reports - New.

Enter the name, author, file name and activate the report using the Activated report option. If you do not activate the report, it is not displayed in the data tree.

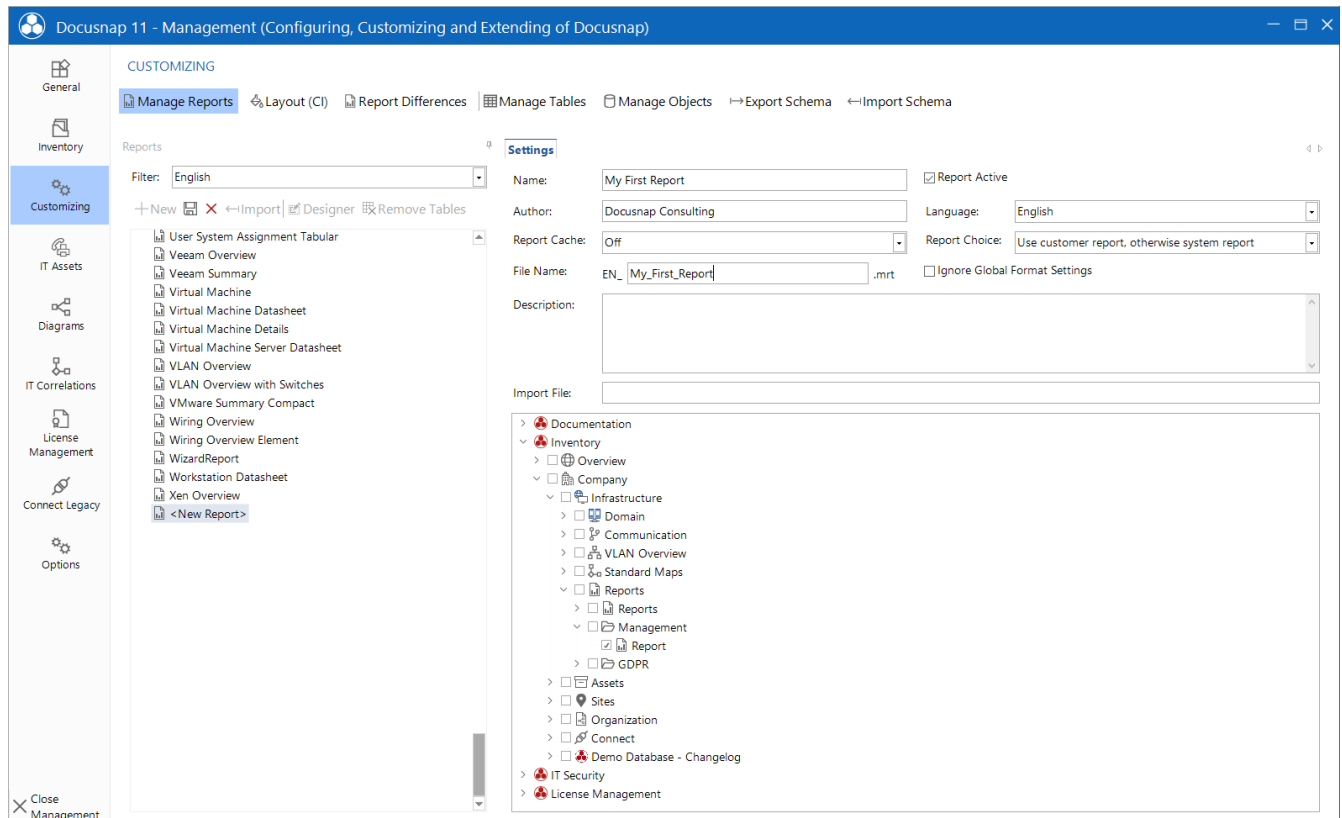


Figure 9 - Creating the new report in Docusnap Administration

4.4 CREATE / EDIT DATA SOURCES

4.4.1 USE OF EXISTING DATA SOURCES

Open the report just created from the tree structure in Docusnap and switch to the Report Designer.

You can also open the report directly from the administration - but then you must specify the primary keys manually for previewing and checking the data sources. If you open the report from the tree structure, the primary keys are automatically transferred (preferred).

Within the Report Designer - Dictionary you will now find that all tables available in Docusnap can be found as data sources.

The data sources there can now be adapted accordingly. For our report:

- tDomains
- tHosts
- tDocuWindows
- tSoftware

If you use the available data sources, you must make sure that you activate them before use. To do this, select the data source, e.g. tDomains - right click tDomains - Properties - Connect at startup - True.

If all data sources were active right at the beginning, this would have a considerable impact on the performance of the report production.

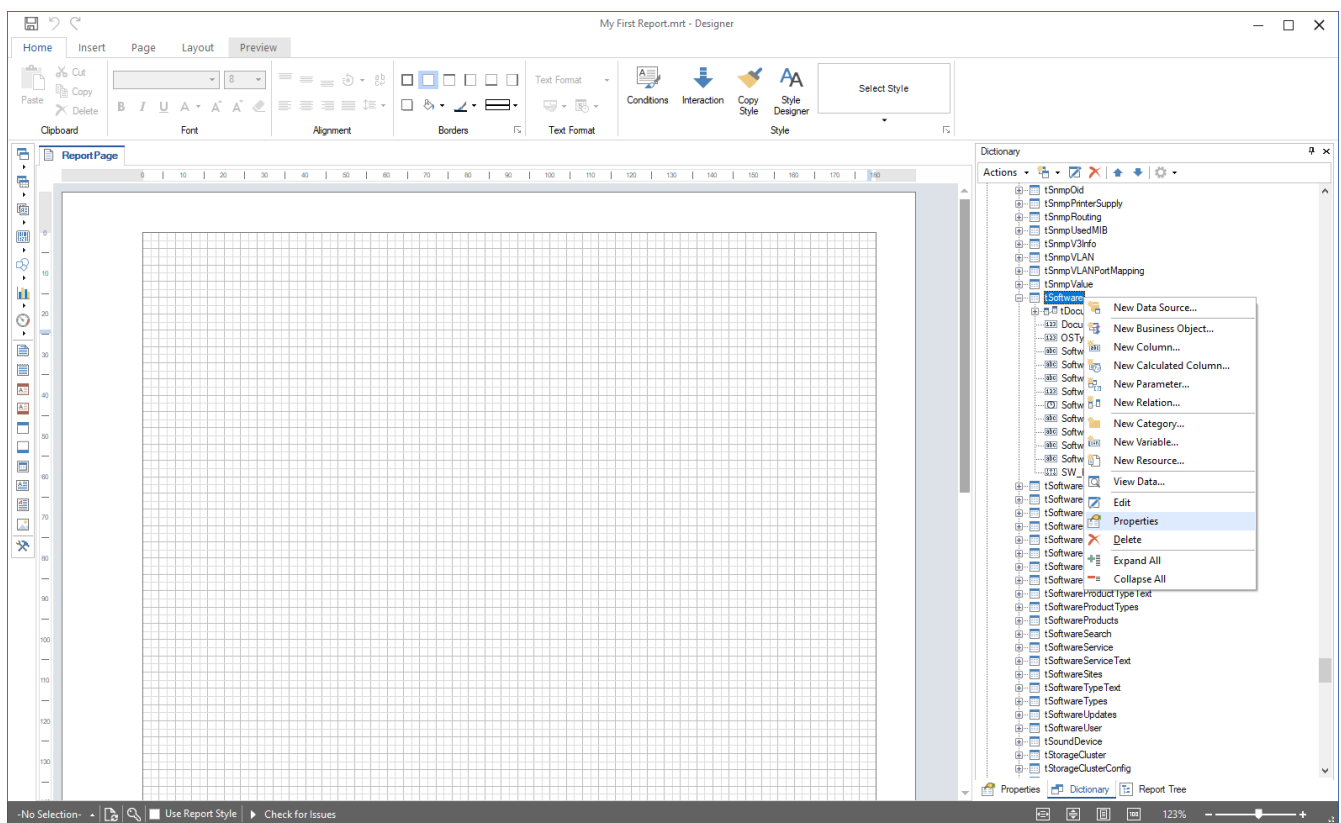


Figure 10 - Open data source properties

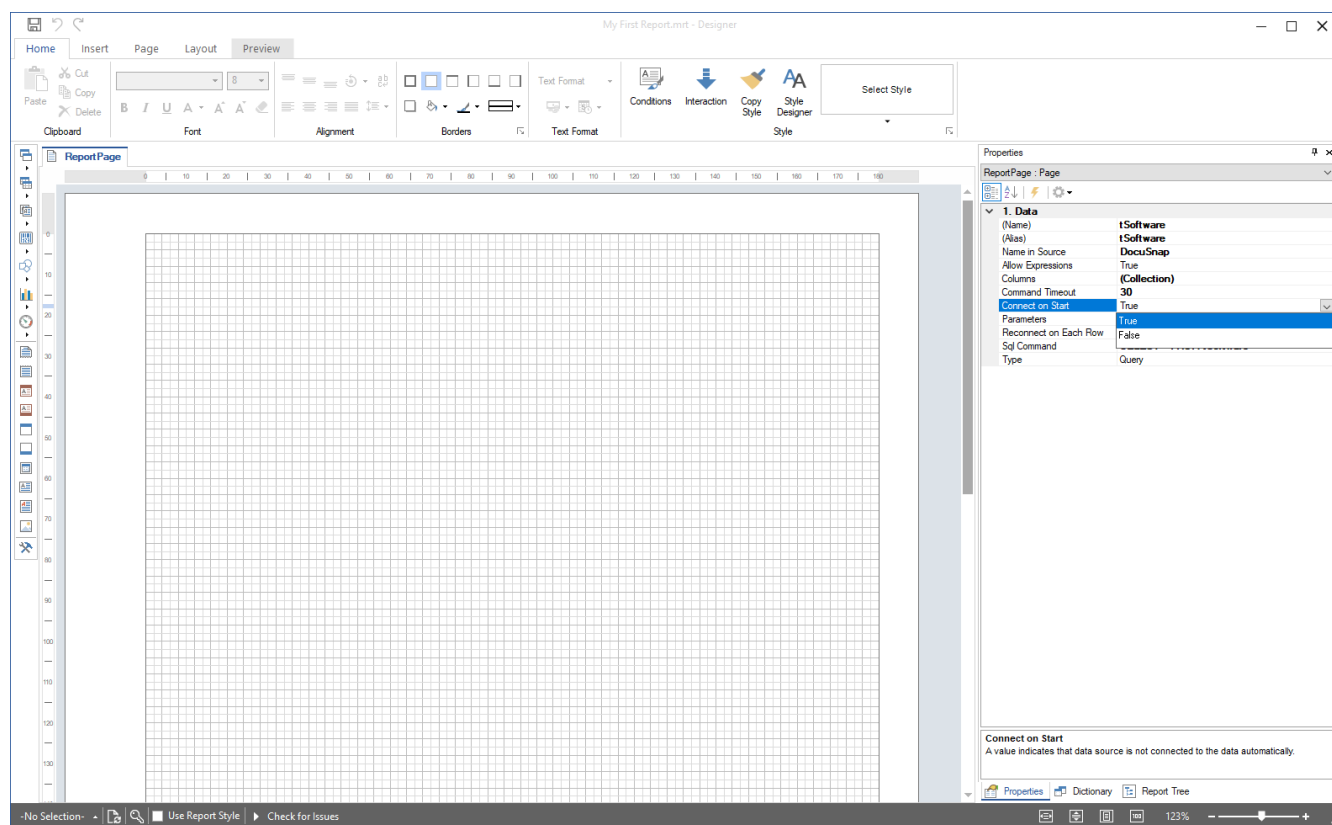


Figure 11 - Connect data source at startup

4.4.2 REMOVING THE EXISTING DATA SOURCE AND CREATING YOUR OWN

For reasons of clarity, we recommend that you remove the existing data sources and create them independently. In this way the data sources are also directly connected.

You can remove the data sources in Administration - Customizing - Manage Reports - Remove Tables.

The further preparation of the report involves removing the existing data sources and creating our own.

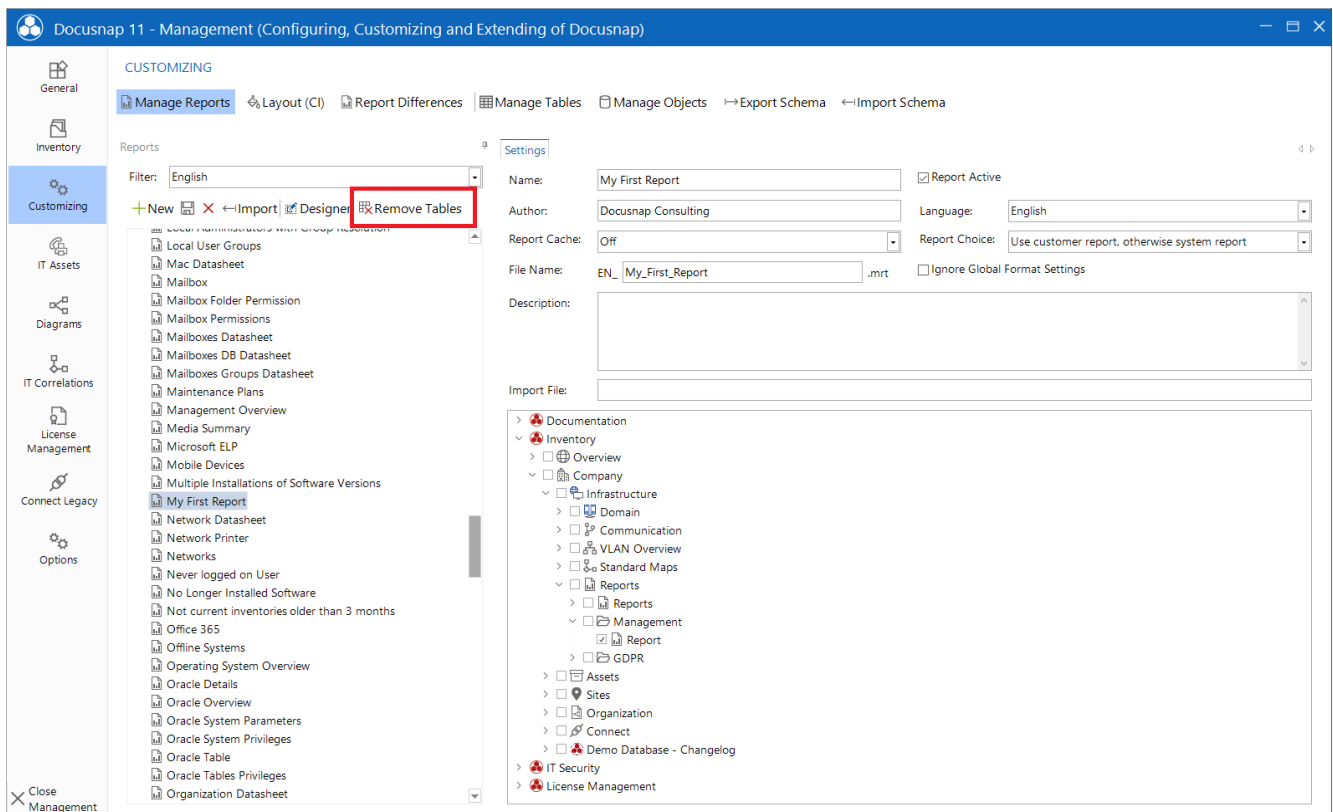


Figure 12 - Remove existing data sources / tables from the report

4.5 CREATING THE REQUIRED DATA SOURCES IN THE REPORT

4.5.1 CREATING THE DATA SOURCE - tDomains

Now create the data sources according to the following scheme:

- Dictionary - Data Sources - New Data Source - DocuSnap
- Assign a **name** - the alias will then be adjusted as well
- Define the SQL query
- Add the queried columns - **Select all columns**

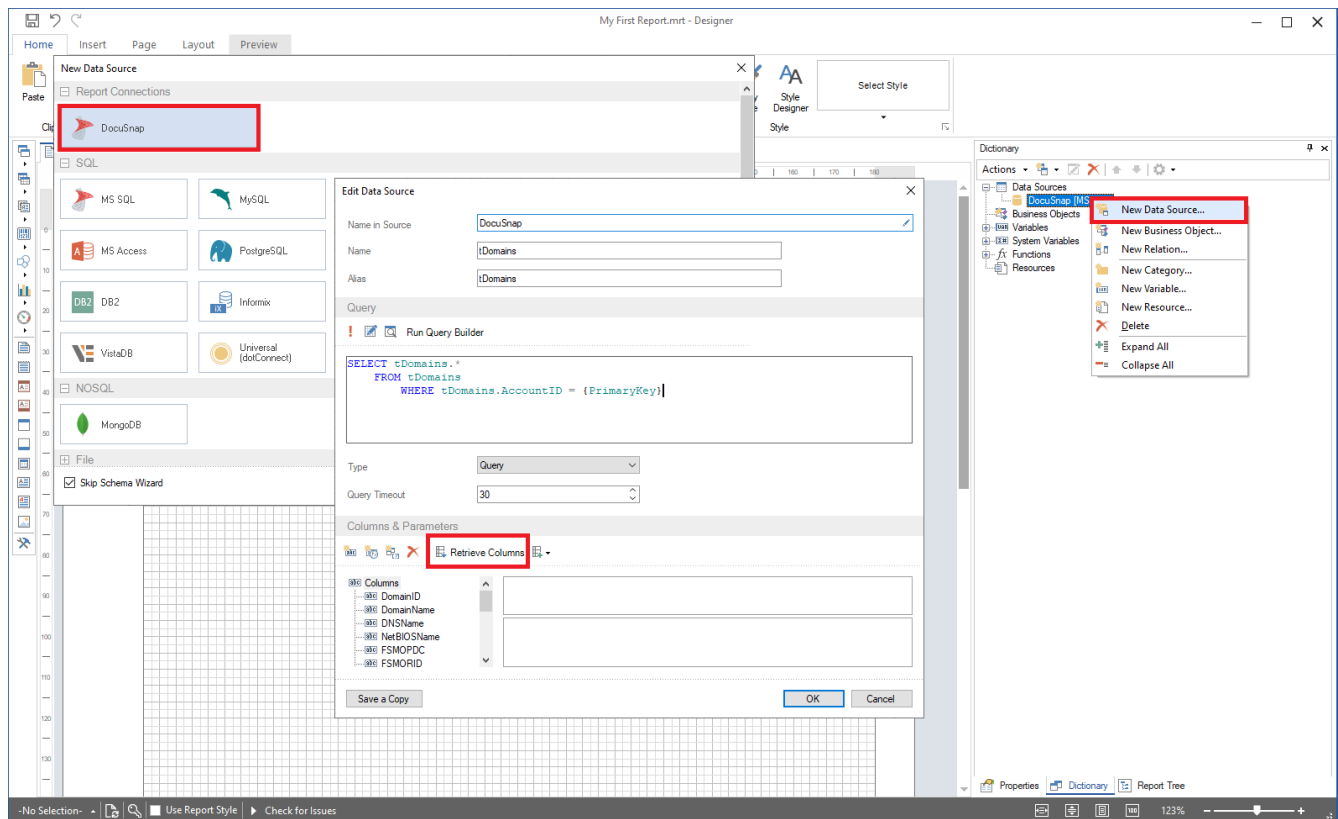


Figure 13 - Adding a new data source

The aim of the data source is to display the domains of the selected client. This data is queried using the following SQL query:

```
SELECT tDomains.*
FROM tDomains
WHERE tDomains.AccountID = {PrimaryKey}
```

The tDomains table contains all domains that exist in the Docusnap database. The AccountID is used to distinguish to which client these domains belong. The value for the variable {PrimaryKey} is automatically passed by Docusnap. This value depends on the client under which the report was called up.

4.5.1.1 READ ALL COLUMNS

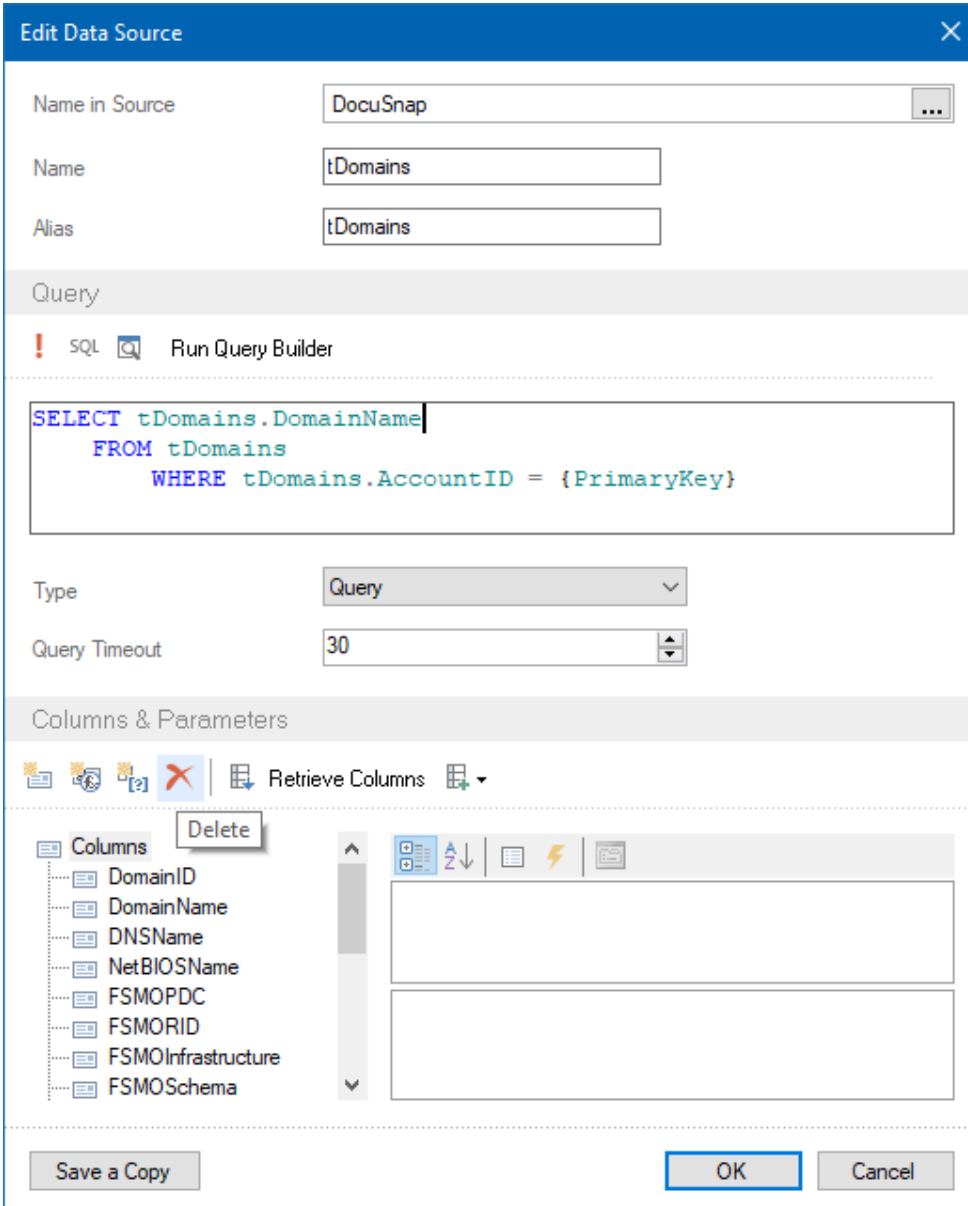
The previously mentioned **Read All Columns** button ensures that all columns specified in the Select query are automatically available in the data source.

In our example above, the expression `SELECT * FROM` was used, which is why all columns from the table `tDomains` are now available.

If the `SELECT` query is specified on a few columns, only these columns are available afterwards.

If you have made changes to the SQL query that influence the columns, you should delete the existing columns and read them out again:

- Open data source - Select columns - Select the red X - this stands for "Delete"



Edit Data Source

Name in Source: DocuSnap

Name: tDomains

Alias: tDomains

Query

SQL Run Query Builder

```
SELECT tDomains.DomainName
FROM tDomains
WHERE tDomains.AccountID = {PrimaryKey}
```

Type: Query

Query Timeout: 30

Columns & Parameters

Columns: DomainID, DomainName, DNSName, NetBIOSName, FSMOPDC, FSMORID, FSMOInfrastructure, FSMOSchema

Buttons: Delete, Retrieve Columns

Buttons: Save a Copy, OK, Cancel

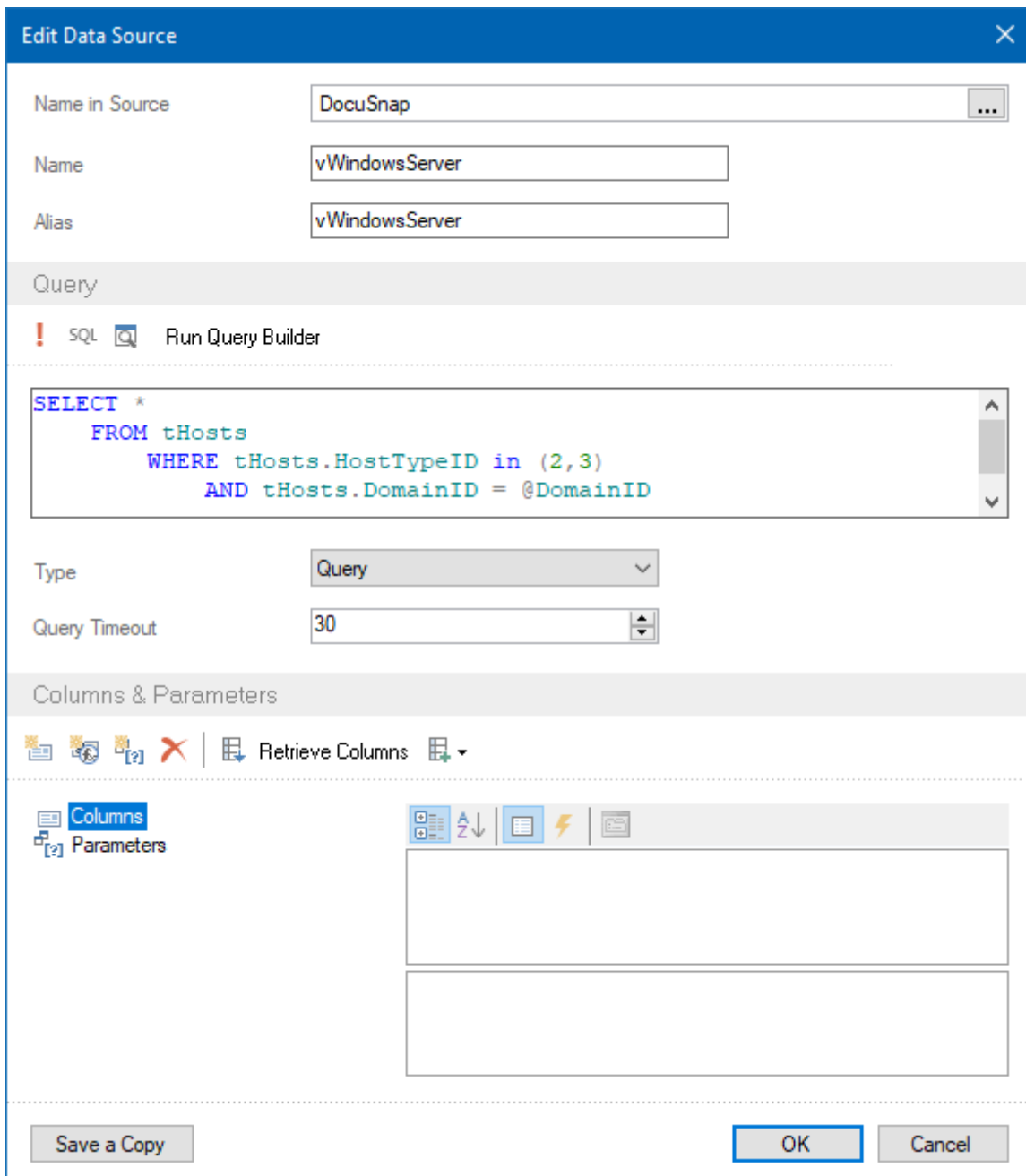
Figure 14 - Deleting existing columns from the data source

4.5.2 CREATING THE DATA SOURCE - vWindowsServer

Now create the next data source: vWindowsServer. This data source will list the individual Windows servers.

Within the data source, a variable is now used, whose value we must get from the data source / main component above (@DomainID - tDomains). The setup of a main component is described in chapter 4.6.

```
SELECT *
FROM tHosts
    WHERE tHosts.HostTypeID in (2,3)           -- Filtering Windows servers and DCs
        AND tHosts.DomainID = @DomainID
```



Edit Data Source

Name in Source: DocuSnap

Name: vWindowsServer

Alias: vWindowsServer

Query

! SQL Run Query Builder

```
SELECT *
FROM tHosts
    WHERE tHosts.HostTypeID in (2,3)
        AND tHosts.DomainID = @DomainID
```

Type: Query

Query Timeout: 30

Columns & Parameters

Columns

Parameters

Retrieve Columns

Save a Copy OK Cancel

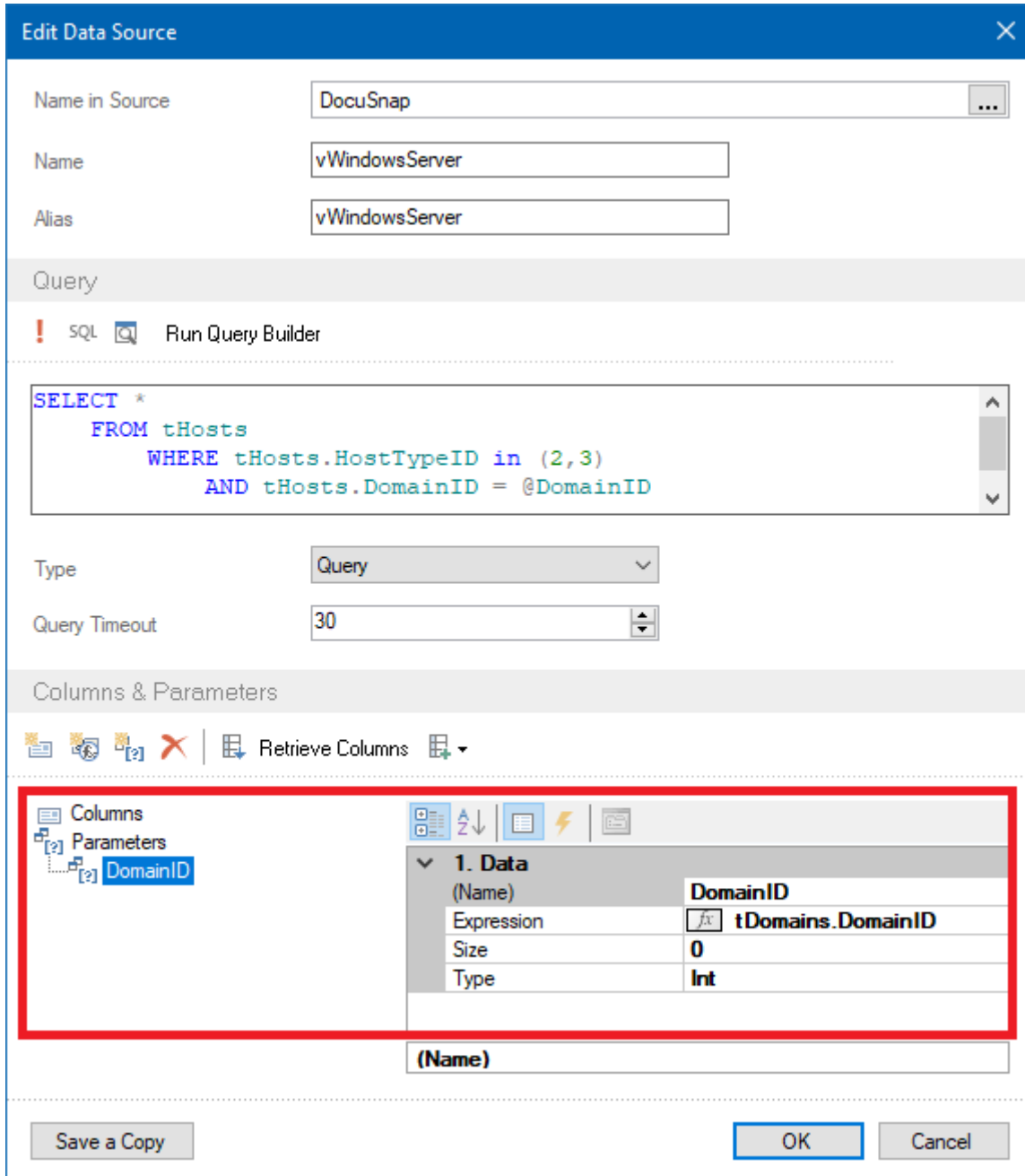
Figure 15 - Creating the vWindowsServer Data Source

If we now read all columns, we get the following error message:

Must declare the scalar variable "@DomainID".

We create the variable / parameter as follows:

- Right click on parameter - New parameter
- Name: **DomainID**
- Expression: **tDomains.DomainID**
- Type: **Int**



Edit Data Source

Name in Source: DocuSnap

Name: vWindowsServer

Alias: vWindowsServer

Query

SQL Run Query Builder

```
SELECT *
FROM tHosts
WHERE tHosts.HostTypeID in (2,3)
AND tHosts.DomainID = @DomainID
```

Type: Query

Query Timeout: 30

Columns & Parameters

Columns Parameters DomainID

1. Data	
(Name)	DomainID
Expression	tDomains.DomainID
Size	0
Type	Int

(Name)

Save a Copy OK Cancel

Figure 16 - Creating the Variable / Parameter DomainID

Now read out all columns, in this course you will receive a new message:

A screenshot of a Windows-style dialog box titled "SQL Expressions" with a close button (X) in the top right corner. The dialog has a light gray background. On the left, the text "DomainID" is displayed. To its right is a text input field with a blue border and a small blue icon on the right side. At the bottom right of the dialog are two buttons: "Ok" and "Cancel".

Figure 17 - Specifying the DomainID

Confirm this message with OK. Now the columns / fields of the data source have been added.

The used SQL query now gets the **DomainID** from the data source tDomains. As a result, only those Windows servers that are also members of this domain are listed after the domain is output.

There is also a filter within the SQL query: ...WHERE tHosts.HostTypeID in (2,3)...

All systems that are inventoried with Docusnap can be found in the tHosts table. The **HostTypeID** is used to distinguish the system types. The different HostTypeIDs can be taken from the table tHostTypes:

0	Offline
1	Workstation
2	Server
3	DC
4	SNMP
5	IP Host
6	CIFS
8	DFS
100	Linux Offline
101	Linux Workstation
102	Linux Server
103	Linux DC
200	Mac Offline
201	Mac Workstation
301	ThinClientWindows
302	ThinClientLinux
303	ThinClient
401	HPUX

4.5.3 CREATING THE DATA SOURCE - vDocuWindows

Now create the data source: vDocuWindows. This data source will output the general information about the Windows servers. This data source reflects the information of the Windows servers, which can be found in the data tree as follows

Your company - Infrastructure - Your domain - Server - Server name - Scandate - General

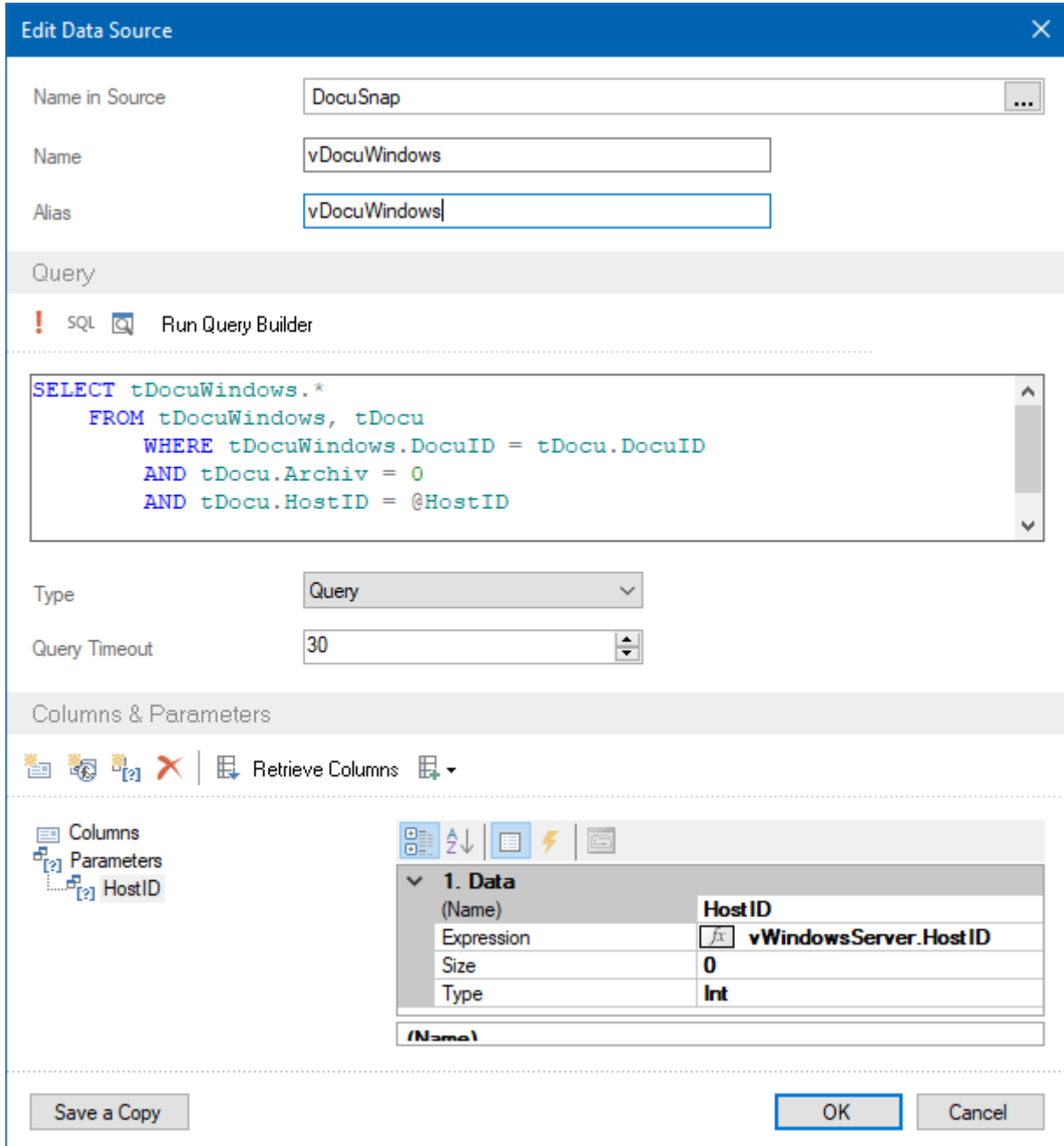
```
SELECT tDocuWindows.*
      FROM tDocuWindows, tDocu
            WHERE tDocuWindows.DocuID = tDocu.DocuID
            AND tDocu.Archiv = 0                                -- Filtering to final scan!
            AND tDocu.HostID = @HostID
```

Within the data source the tables **tDocuWindows** and **tDocu** are joined together. This JOIN takes place via the **DocuID**. The **DocuID** determines the scan for which the Windows Server data is to be output. The expression **tDocu.Archiv = 0** determines that the data of the last scan is output.

In this data source now the **variable / parameter HostID** is used. This ensures the assignment to the Windows server.

Create the variable with the following values and then read out all columns again:

- Name: HostID
- Expression: vWindowsServer.HostID
- Type: Int



Edit Data Source

Name in Source: DocuSnap

Name: vDocuWindows

Alias: vDocuWindows

Query

SQL Run Query Builder

```
SELECT tDocuWindows.*
FROM tDocuWindows, tDocu
WHERE tDocuWindows.DocuID = tDocu.DocuID
AND tDocu.Archiv = 0
AND tDocu.HostID = @HostID
```

Type: Query

Query Timeout: 30

Columns & Parameters

Retrieve Columns

Columns

Parameters

HostID

1. Data	
(Name)	HostID
Expression	vWindowsServer.HostID
Size	0
Type	Int

(Name)

Save a Copy OK Cancel

Figure 18 - Creating the variable / parameter HostID

4.5.4 CREATING THE DATA SOURCE - vSoftware

Now create the data source: vSoftware. This data source will output the installed software of the Windows servers.

```
SELECT tSoftware.*
FROM tSoftware, tDocu
    WHERE tSoftware.DocuID = tDocu.DocuID
    AND tDocu.Archiv = 0                                -- Filtering to final scan!
    AND tDocu.HostID = @HostID
```

In this data source the tables tSoftware and tDocu are joined and also filtered again for the last scan (tDocu.Archive = 0).

Also here again the **variable / parameter HostID** is needed, which is created with the same values as the previous one. After creating the variable, all columns must be read out again.

Edit Data Source

Name in Source

DocuSnap

Name

vSoftware

Alias

vSoftware

Query

! SQL Run Query Builder

```
SELECT tSoftware.*
FROM tSoftware, tDocu
WHERE tSoftware.DocuID = tDocu.DocuID
      AND tDocu.Archiv = 0
      AND tDocu.HostID = @HostID
```

Type

Query

Query Timeout

30

Columns & Parameters

Columns

Parameters

HostID

Retrieve Columns

1. Data

(Name)

HostID

Expression

vWindowsServer.HostID

Size

0

Type

Int

(Name)

Save a Copy

OK

Cancel

Figure 19 - Creating the Variable / Parameter HostID

4.5.5 ACTIVATE THE PROPERTY - RECONNECT FOR EACH LINE

Before the individual components are created, the property **Reconnect at every row** must be activated for the previously created data sources.

You do this as follows:

- Right click on the data source - **Properties**
- **Reconnect on each line** - **True**

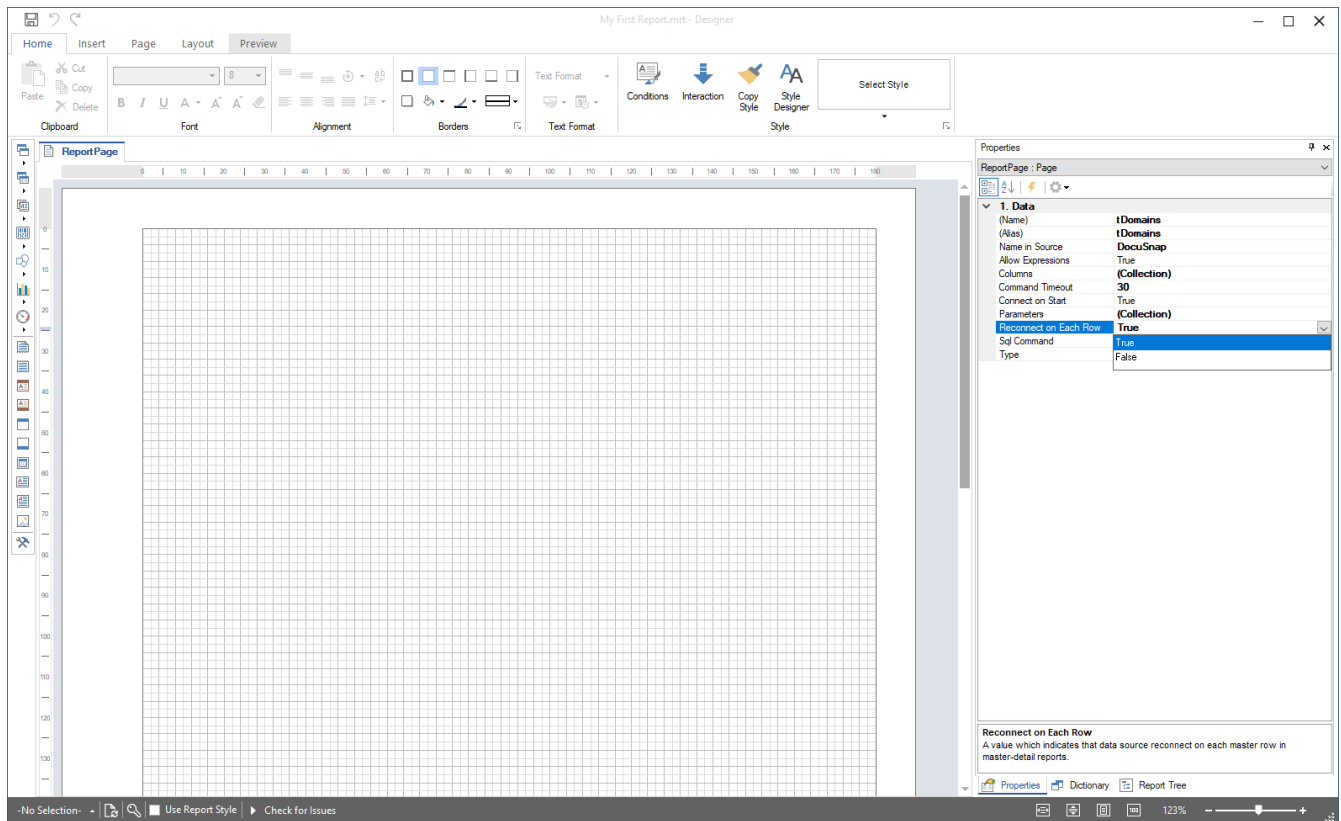


Figure 20 - Activating the property - Reconnect at each row

4.6 CREATING THE COMPONENTS FOR THE OUTPUT OF THE INFORMATION

In the following chapters, the components that ensure that the desired information is output in the report are now created. These components are:

- Headgear
- Data tapes
- Text fields

4.6.1 CREATING THE COMPONENTS FOR THE OUTPUT OF THE DOMAIN

The easiest way to create the corresponding components is to drag and drop the previously created data source - **tDomains** - into the workspace of the Report Designer.

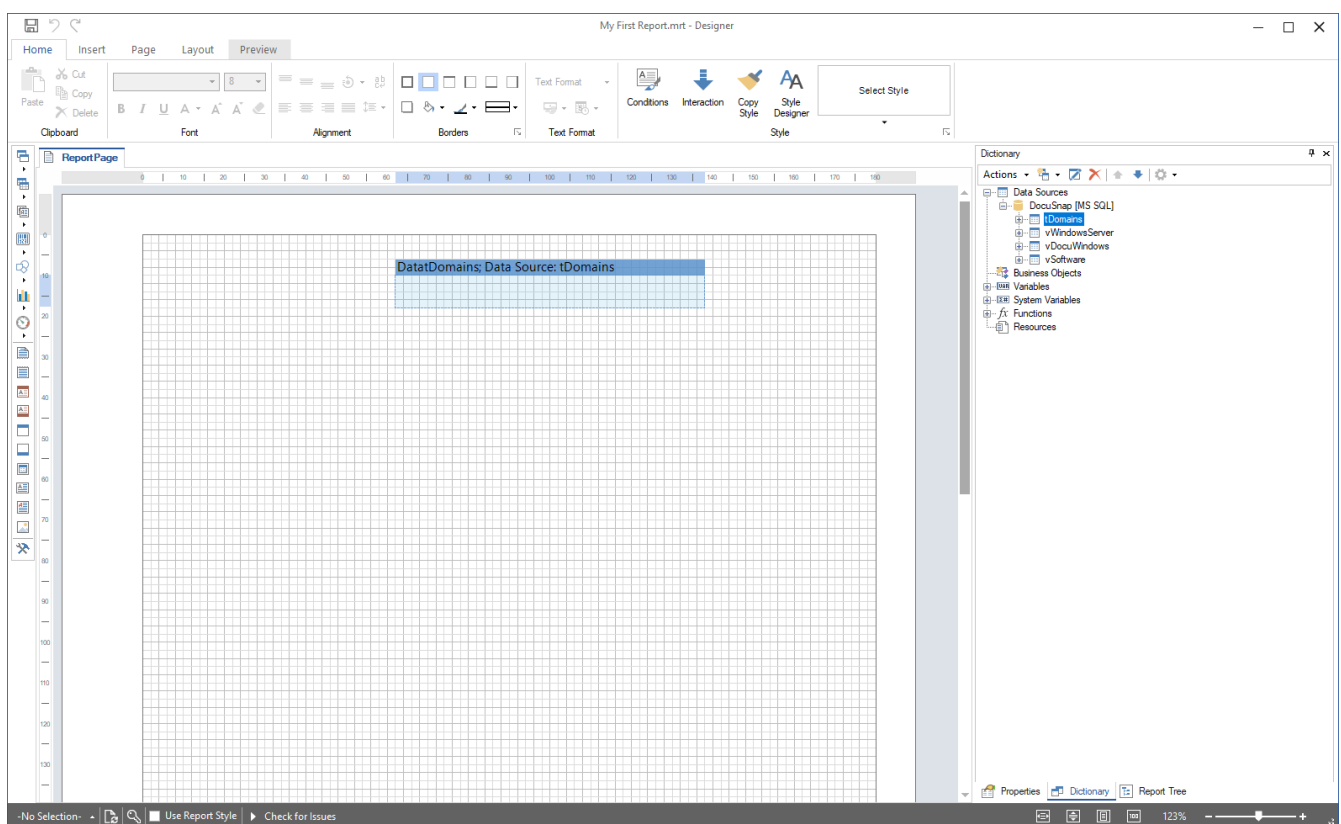


Figure 21 - Drag and drop data source into the work area

The following window appears, allowing you to select the fields to be displayed. You can also select whether a data header and data footer tape should be created for the fields.

Select the checkbox for the **DomainName** field.

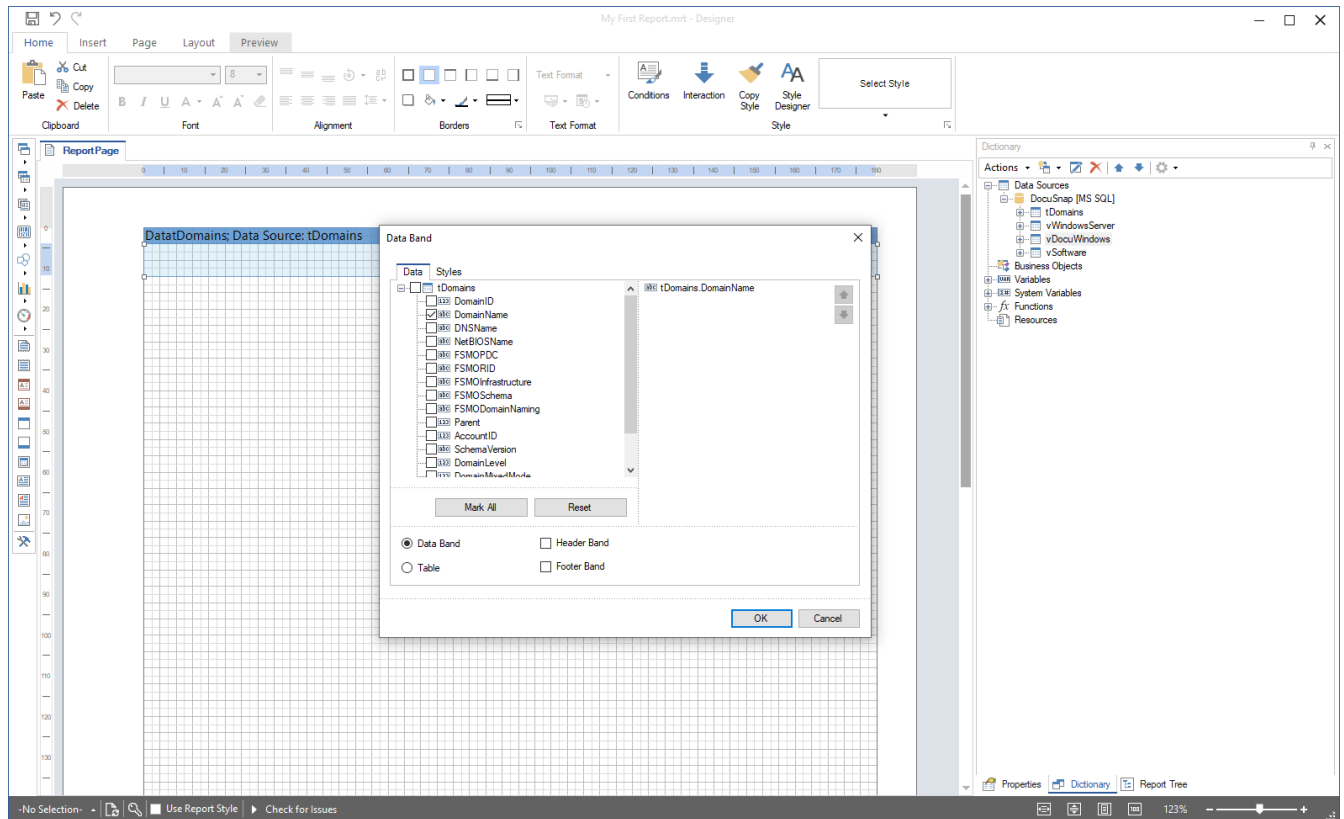


Figure 22 - Selection of the DomainName field

4.6.1.1 ADJUSTING THE FORMATTING OF COMPONENTS / FIELDS

As a result, you have stored the first component in the report. This can now be formatted using the Style component.

- To do this, mark the text field stored in the data tape
- Select the **Properties** tab in the **information window**
- Below **Appearance - Component Style** you can now select a style and thus determine the formatting
- Select - **Title**

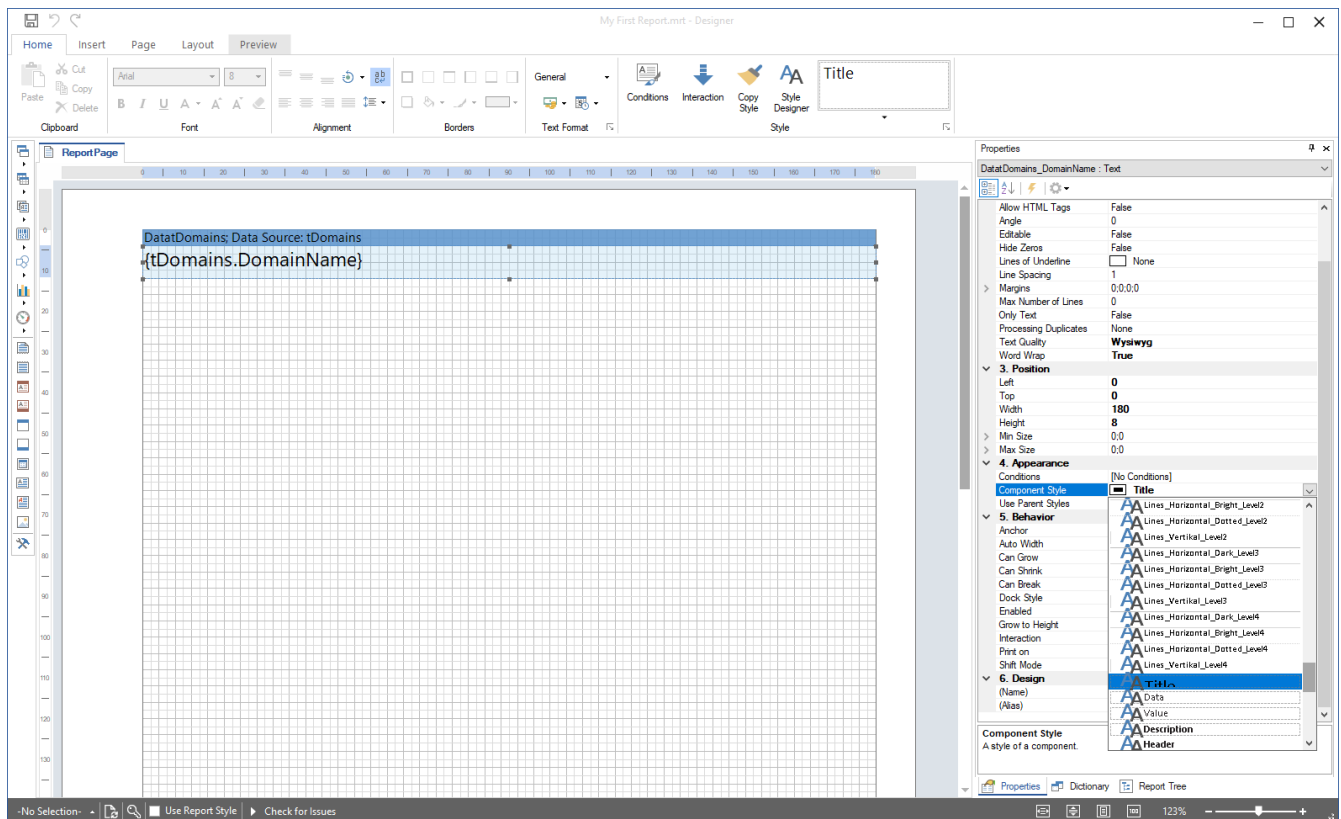


Figure 23 - Component Style Selection - Formatting

Using the **Preview** tab within the Ribbon Command Bar you can now open a first preview of the report - the domain(s) will now be output.

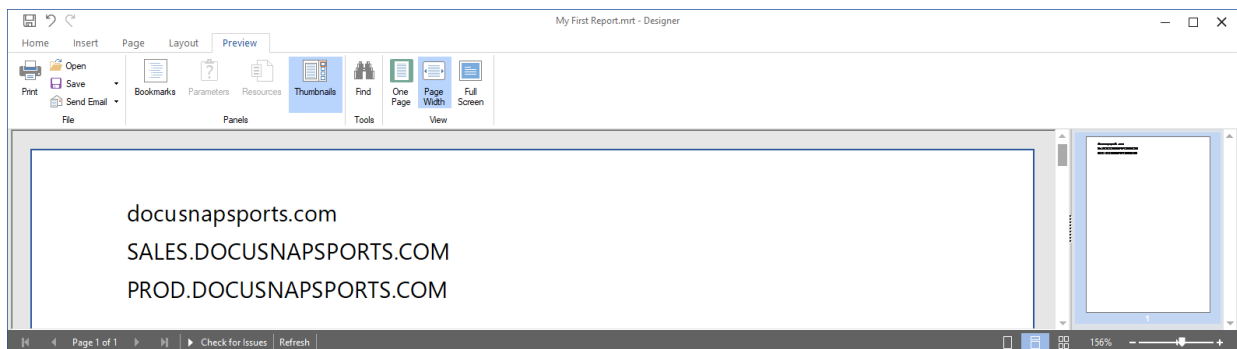


Figure 24 - First preview of the report - output of the domain(s)

4.6.1.2 ADJUSTING THE HEIGHT OF COMPONENTS

Furthermore, you should increase the height of the data band to 12 and position the text field in it further in the middle.

You adjust the height of the data band within the Properties - Position - Height.

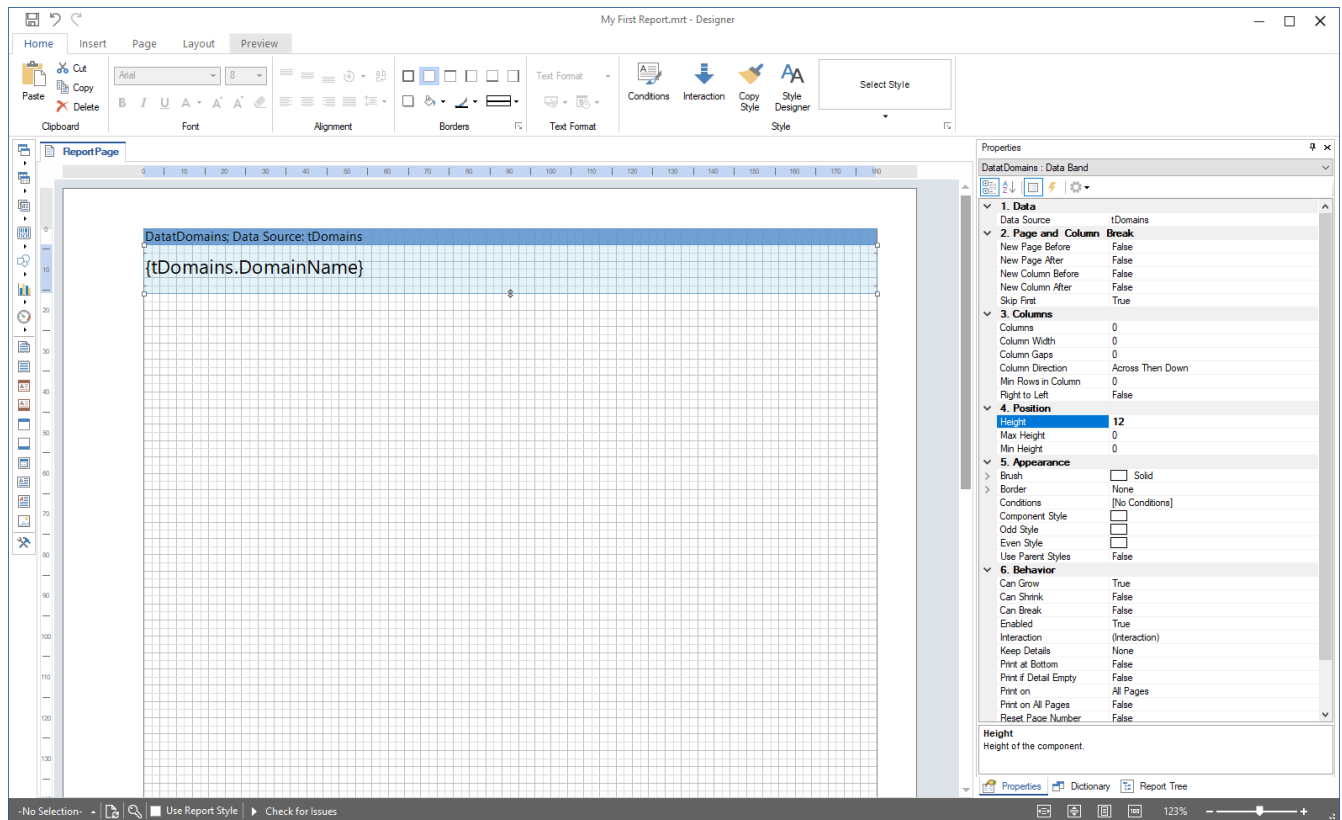


Figure 25 - Adjusting the height of the data band

The change is noticeable with more free space between the domains:

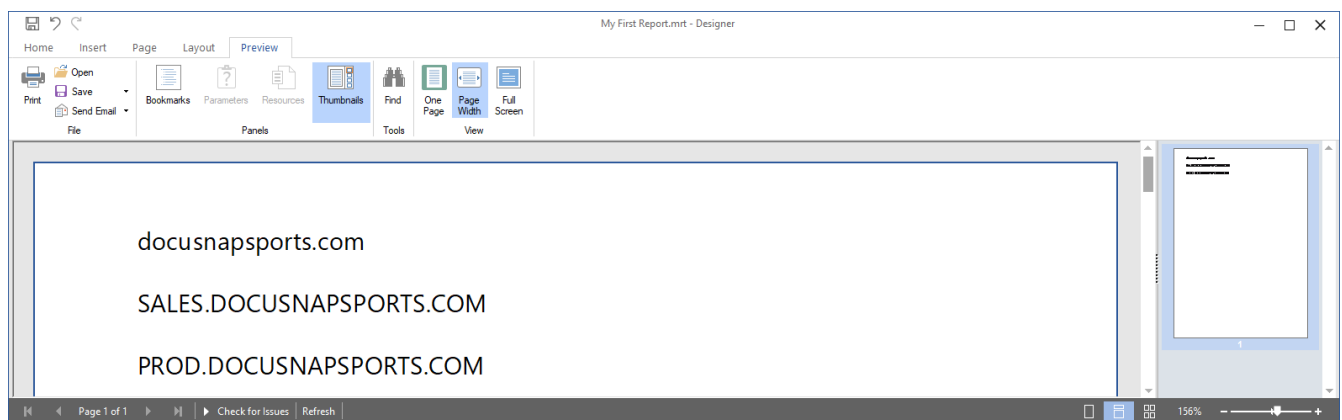


Figure 26 - Result of adjusting the height and arrangement of the data band

4.6.2 CREATING THE COMPONENTS FOR THE OUTPUT OF THE WINDOWS SERVERS

Drag and drop the vWindowsServer data source into the Report Designer workspace.

Select the following fields and options to display in the report:

- Hostname
- IpOnline
- IsVirtual
- Data header tape

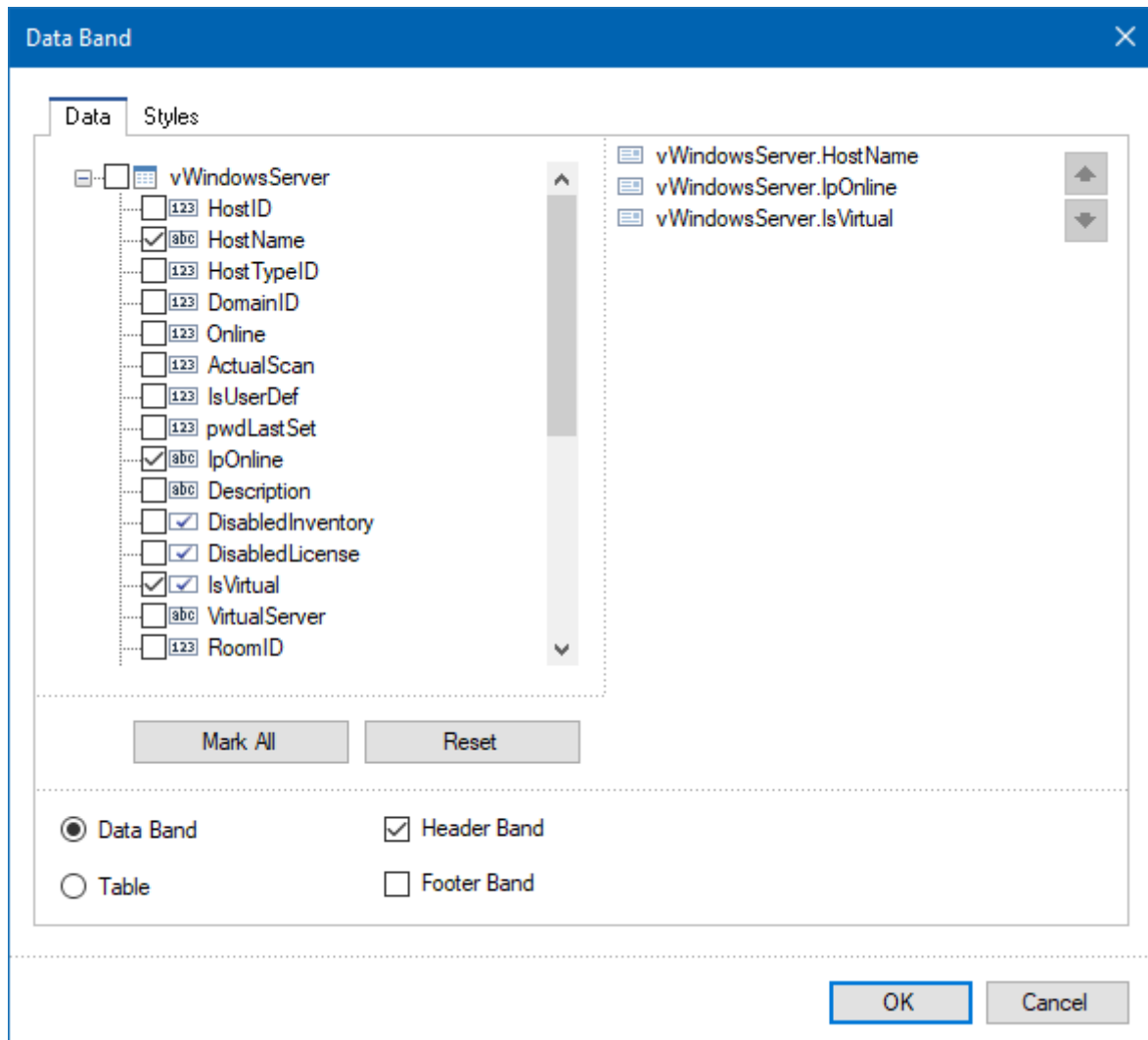


Figure 27 - Selecting Fields and Options

You can adjust the column names from the header band by double-clicking on the text field.

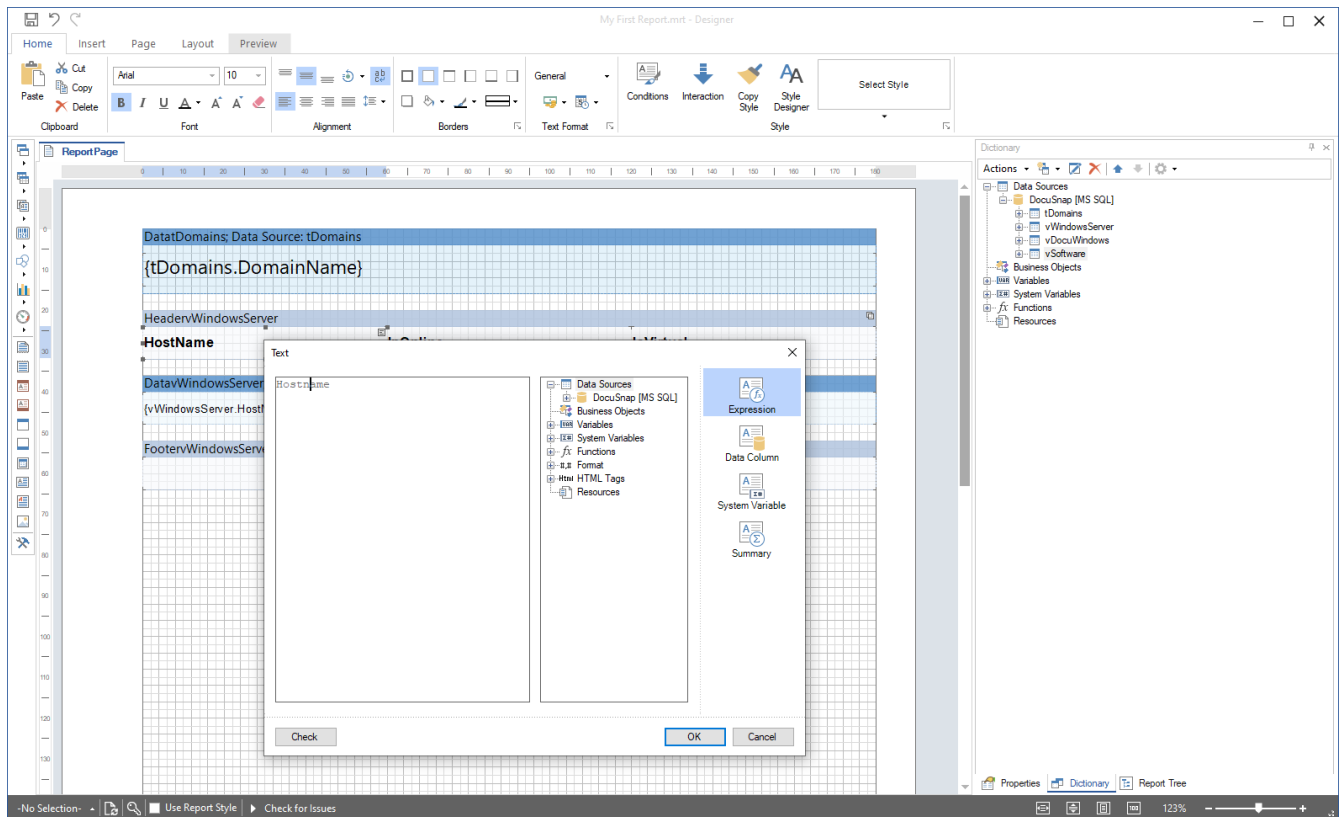


Figure 28 - Adjusting column labels from the header band

Adjust the formatting for the data header and data tape using the Styles component (Header, Value).

Also adjust the heights of the data header and data tape:

- HeadervWindowsServer - Properties - Height = 8
- DatavWindowsServer - Properties - Height = 6

The heights of the column labels and data tape fields must also be adjusted.

- Header column captions - properties - height = 6
- Data tape Fields - Properties - Height = 6

4.6.2.1 ESTABLISH RELATIONSHIPS BETWEEN COMPONENTS / DEFINE MAIN COMPONENTS

The newly added data tape must be associated with the DatatDomains data tape. The correct designation is: The main component must be defined. This adjustment ensures that the domain is output on the first level. Below the domain, the corresponding Windows servers are then listed. After all Windows servers were listed, the other domains would be listed.

If this is not done, all domains will be listed first, followed by all servers - it would not be possible to assign domains to servers within them.

You establish this connection by double-clicking on the data tape - main component - DatatDomains.

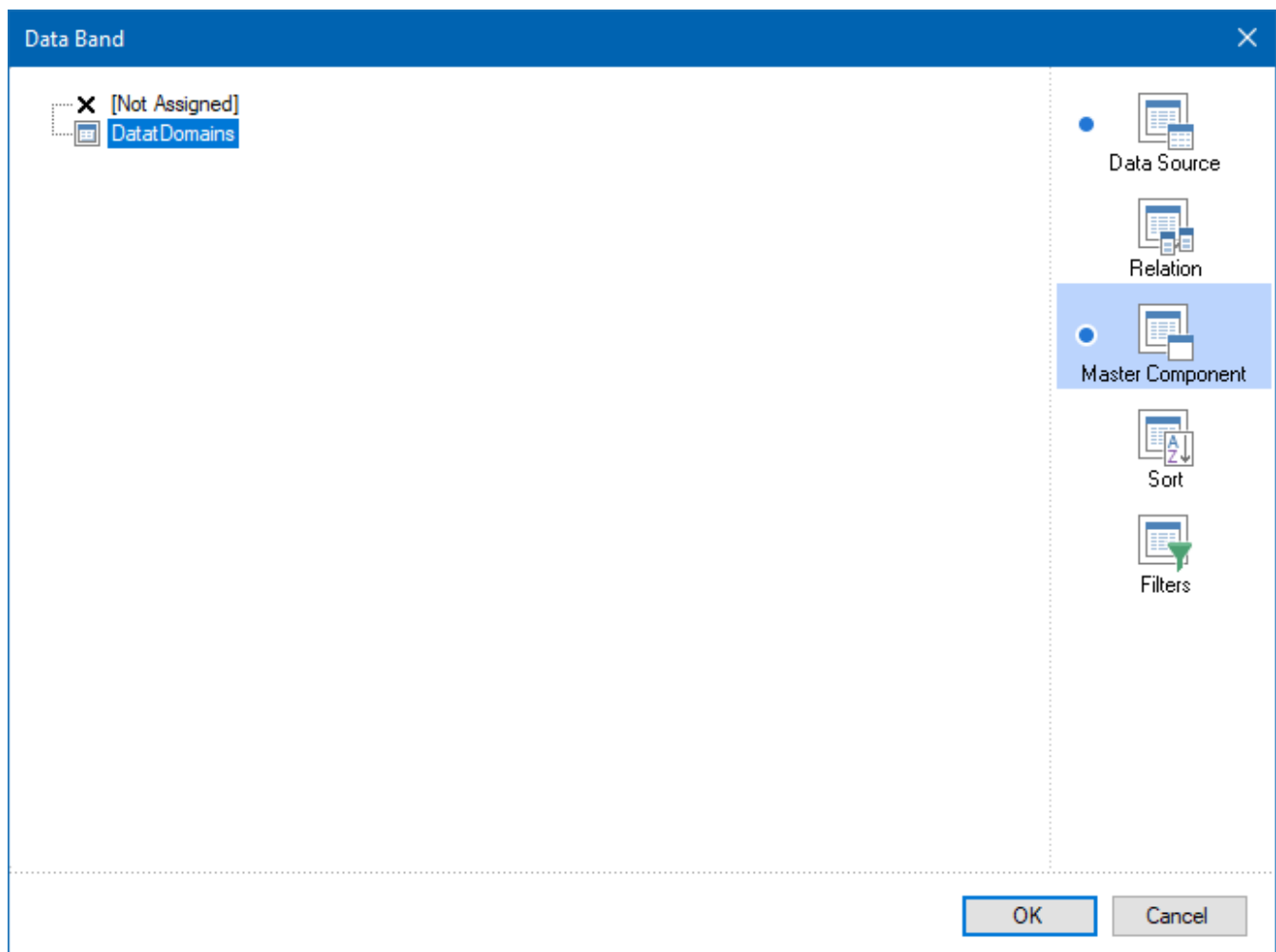


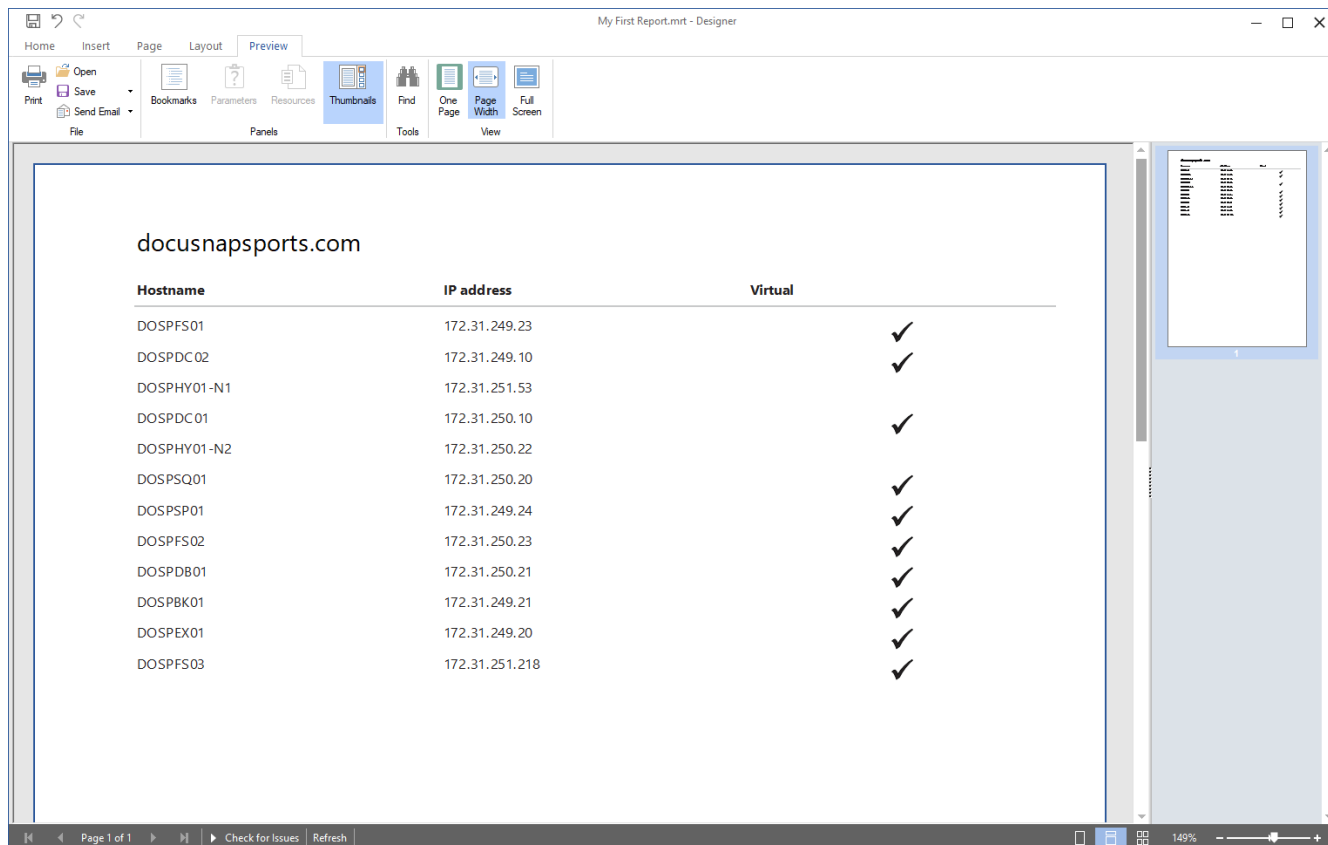
Figure 29 - Selecting the Main Component for the vWindowsServer Data Source

You can see the selection of the main component directly on the data tape, in the right-hand area:

DatavWindowsServer; Data Source: vWindowsServer		Master Component: DatatDomains
{vWindowsServer.HostName}	{vWindowsServer.IpOnline}	✓

Figure 30 - Selecting the main component for the data tape

The report should now look like the following:



My First Report.mrt - Designer

Home Insert Page Layout Preview

Print Open Save Send Email File Bookmarks Parameters Resources Thumbnails Find One Page Page Width Full Screen Panels Tools View

docusnapsports.com

Hostname	IP address	Virtual
DOSPFS01	172.31.249.23	✓
DOSPPC02	172.31.249.10	✓
DOSPHY01-N1	172.31.251.53	
DOSPPC01	172.31.250.10	✓
DOSPHY01-N2	172.31.250.22	
DOSPSQ01	172.31.250.20	✓
DOSPSP01	172.31.249.24	✓
DOSPFS02	172.31.250.23	✓
DOSPPB01	172.31.250.21	✓
DOSPBK01	172.31.249.21	✓
DOSPFX01	172.31.249.20	✓
DOSPFS03	172.31.251.218	✓

Page 1 of 1 Check for Issues Refresh 149%

Figure31 - Preview of the report

4.6.3 CREATING THE COMPONENT FOR OUTPUTTING GENERAL INFORMATION

Drag and drop the vDocuWindows data source into the Report Designer workspace.

Select the following fields and options to display in the report:

- OS
- ModelType
- InstallationDate
- Data header tape

Make the following adjustments:

- Column captions
- Formatting
- Height of the data header tape = 8 and the data header fields = 6
- Height of the data tape and database fields = 5

You can copy the formatting from the previous data and data header Tape. To do this, select a field from the Tape data or data header and then select the **Copy Style** element from the Ribbon Command Bar. Now select the corresponding fields for which the formatting is to be applied.

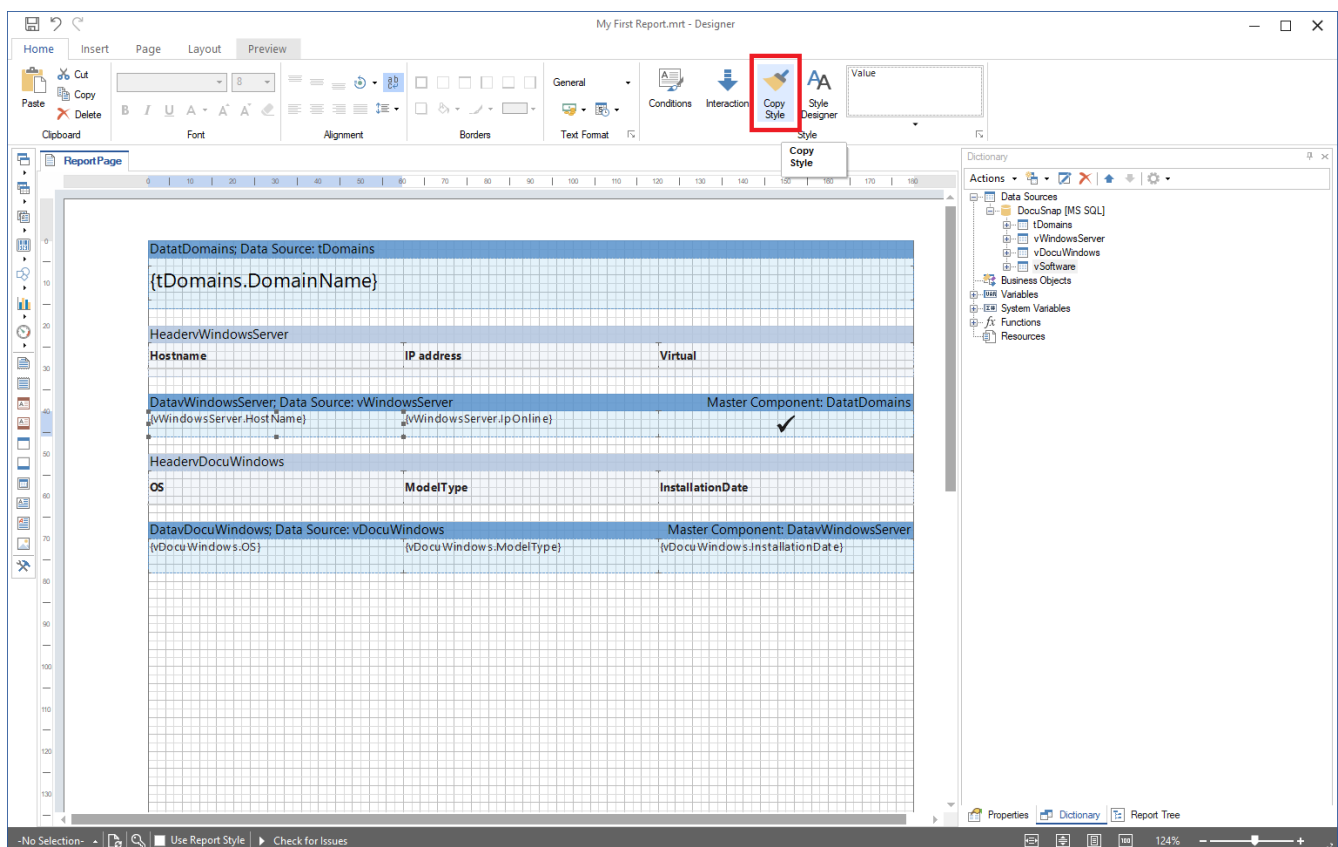


Figure 32 - Copy Style

Also for this component you need to select one main component - DatavWindowsServer.

- Double-click on the **DatavDocuWindows** data tape
- **Main component**
- Selecting **DatavWindowsServer**
- **OK**

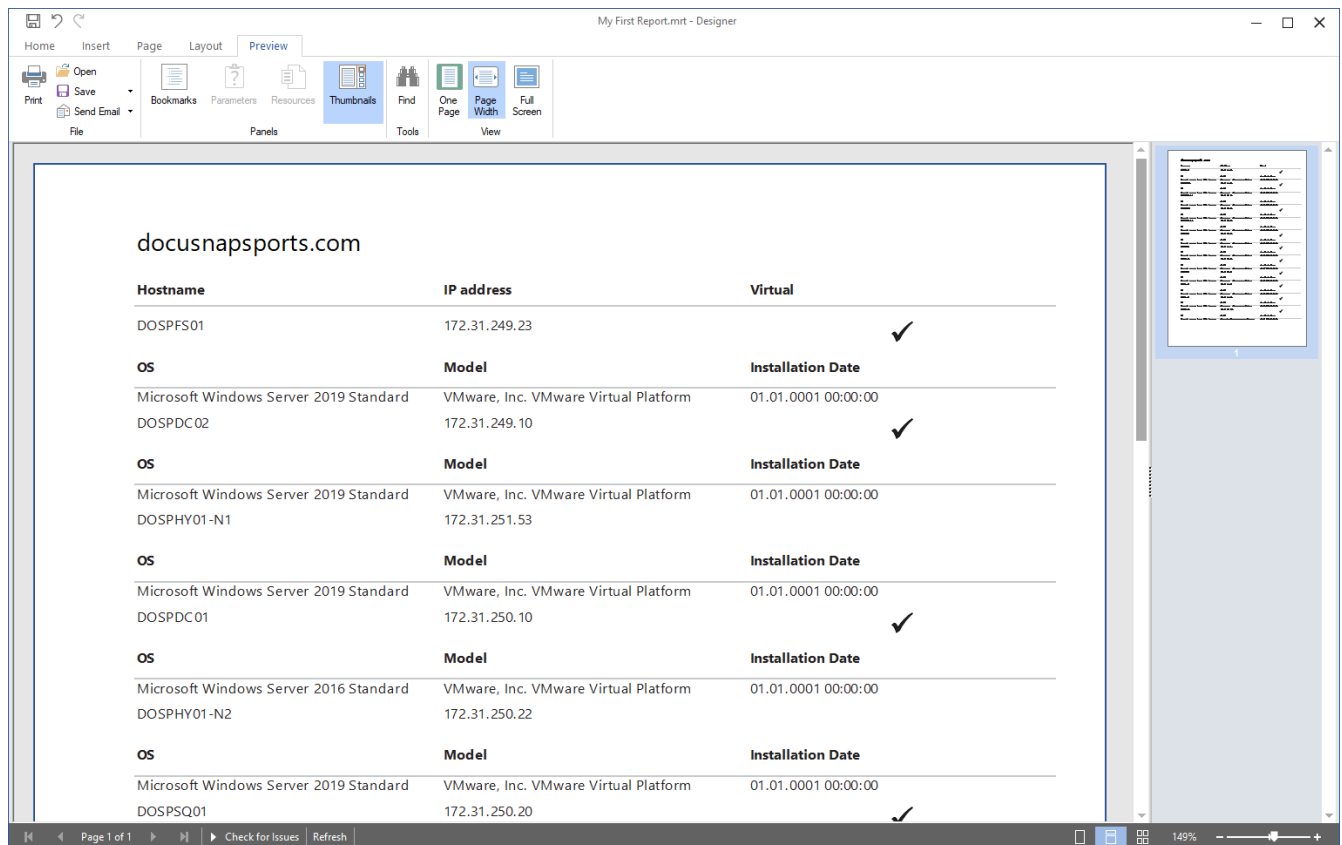


Figure 33 - Preview of the report v2

Please ignore the fact that there is no distance between the general system information (operating system, installation date, model) and the Windows server information (host name, IP and virtual). This will automatically disappear in the next step.

4.6.3.1 CUSTOMIZE DATE FIELDS

Furthermore, we have in this component the output of a date. When you check the output of the date in the report preview, you will notice that the time is displayed in addition to the date.

Z. B. 27.01.2020 00:00:00.

You can change the date format display as follows:

- Select the date field
- Select the **Properties** tab in the **information window**
- Below **Text - Text Format - General** open the context menu
- **Format - Date - Select date format**

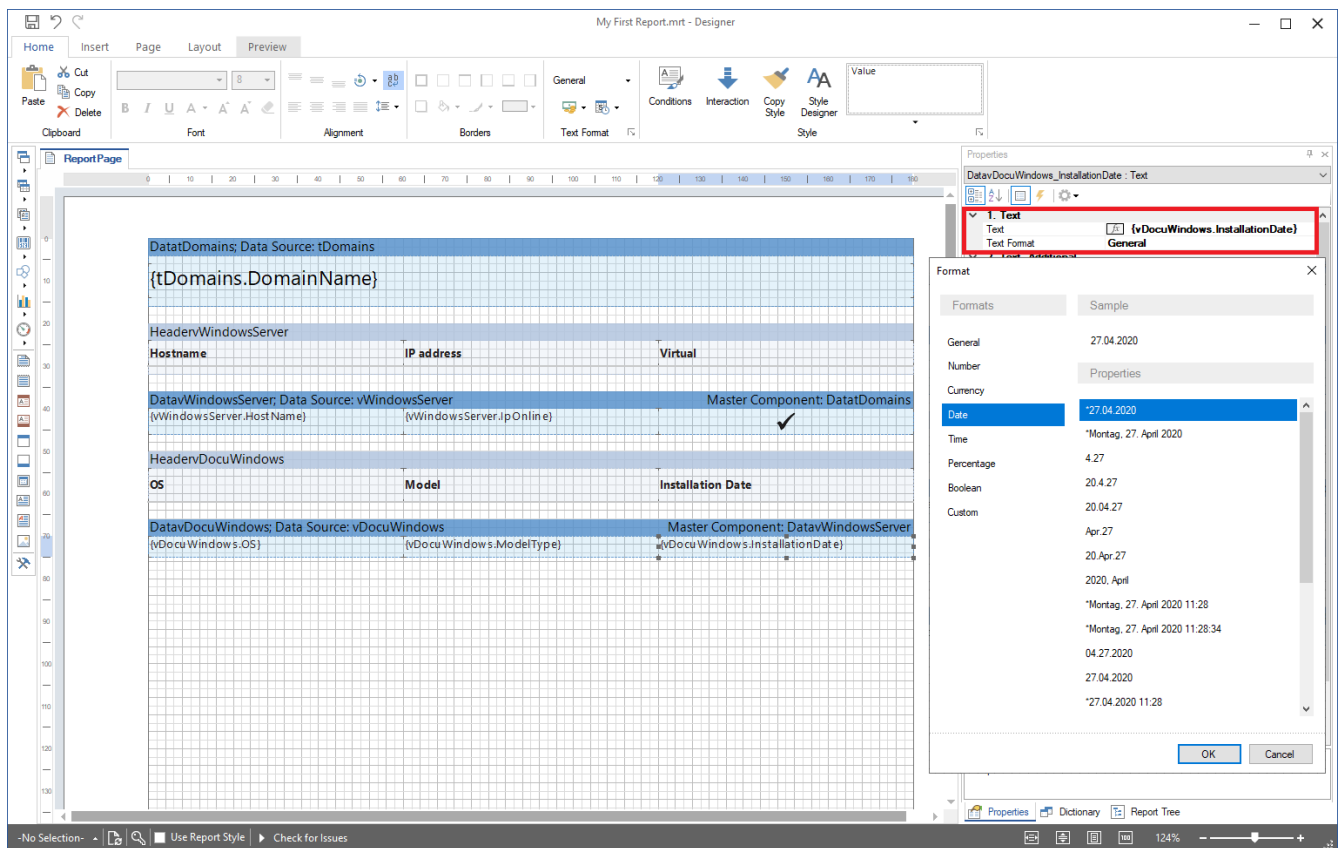


Figure 34 - Customize Date Format

4.6.4 CREATING THE COMPONENT FOR OUTPUTTING THE INSTALLED SOFTWARE

Drag and drop the vSoftware data source into the Report Designer workspace.

Select the following fields and options to display in the report:

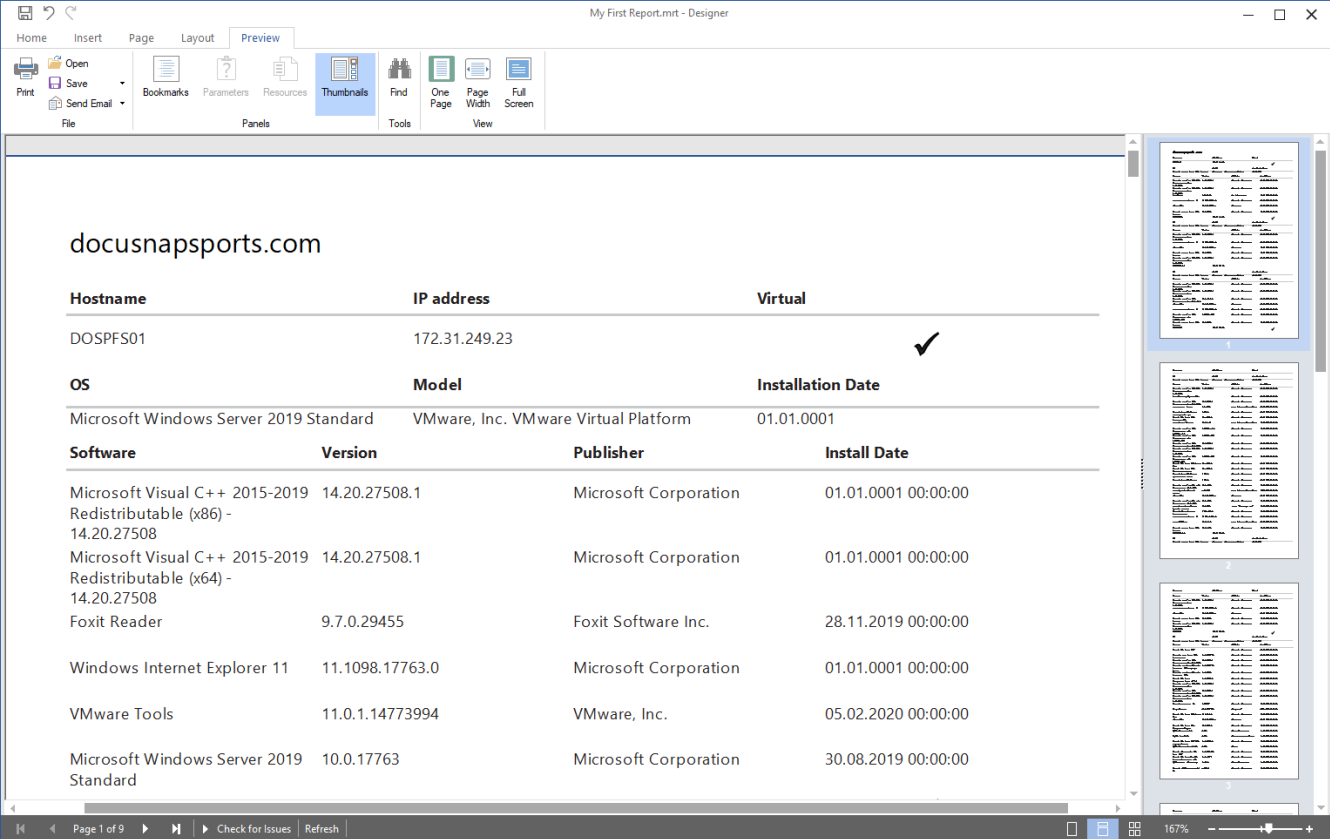
- Software name
- Software version
- SoftwarePublisher
- SoftwareInstallDate
- Data header tape

Make the following adjustments again:

- Column captions
- Formatting
- Format of the date field
- Height of the data header band = 8 and the data header fields = 6
- Height of the data tape and data tape fields = 5

Selection of the main component - DataWindowsServer.

The preview of the report should now give you the following view:



The screenshot shows the 'My First Report.mrt - Designer' window in preview mode. The report content includes the domain 'docusnapsports.com' and a table with system details. The table has three main sections: Hostname/IP/Virtual, OS/Model/Installation Date, and Software/Version/Publisher/Install Date. A checkmark is visible in the 'Virtual' column for the first row.

Hostname	IP address	Virtual
DOSPFS01	172.31.249.23	✓

OS	Model	Installation Date
Microsoft Windows Server 2019 Standard	VMware, Inc. VMware Virtual Platform	01.01.0001

Software	Version	Publisher	Install Date
Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.20.27508	14.20.27508.1	Microsoft Corporation	01.01.0001 00:00:00
Microsoft Visual C++ 2015-2019 Redistributable (x64) - 14.20.27508	14.20.27508.1	Microsoft Corporation	01.01.0001 00:00:00
Foxit Reader	9.7.0.29455	Foxit Software Inc.	28.11.2019 00:00:00
Windows Internet Explorer 11	11.1098.17763.0	Microsoft Corporation	01.01.0001 00:00:00
VMware Tools	11.0.1.14773994	VMware, Inc.	05.02.2020 00:00:00
Microsoft Windows Server 2019 Standard	10.0.17763	Microsoft Corporation	30.08.2019 00:00:00

Figure 35 - Current preview of the report - v3

You will also notice in the preview that some software products use the installation date 01.01.0001 00:00:00. There is actually no entry in the database after this date. To ensure that no entry is displayed here, the data type of the field must be adapted. You can do this as follows:

- Information window - Dictionary - vSoftware - Double click on SoftwareInstallDate
- Change the type datetime to datetime (nullable)

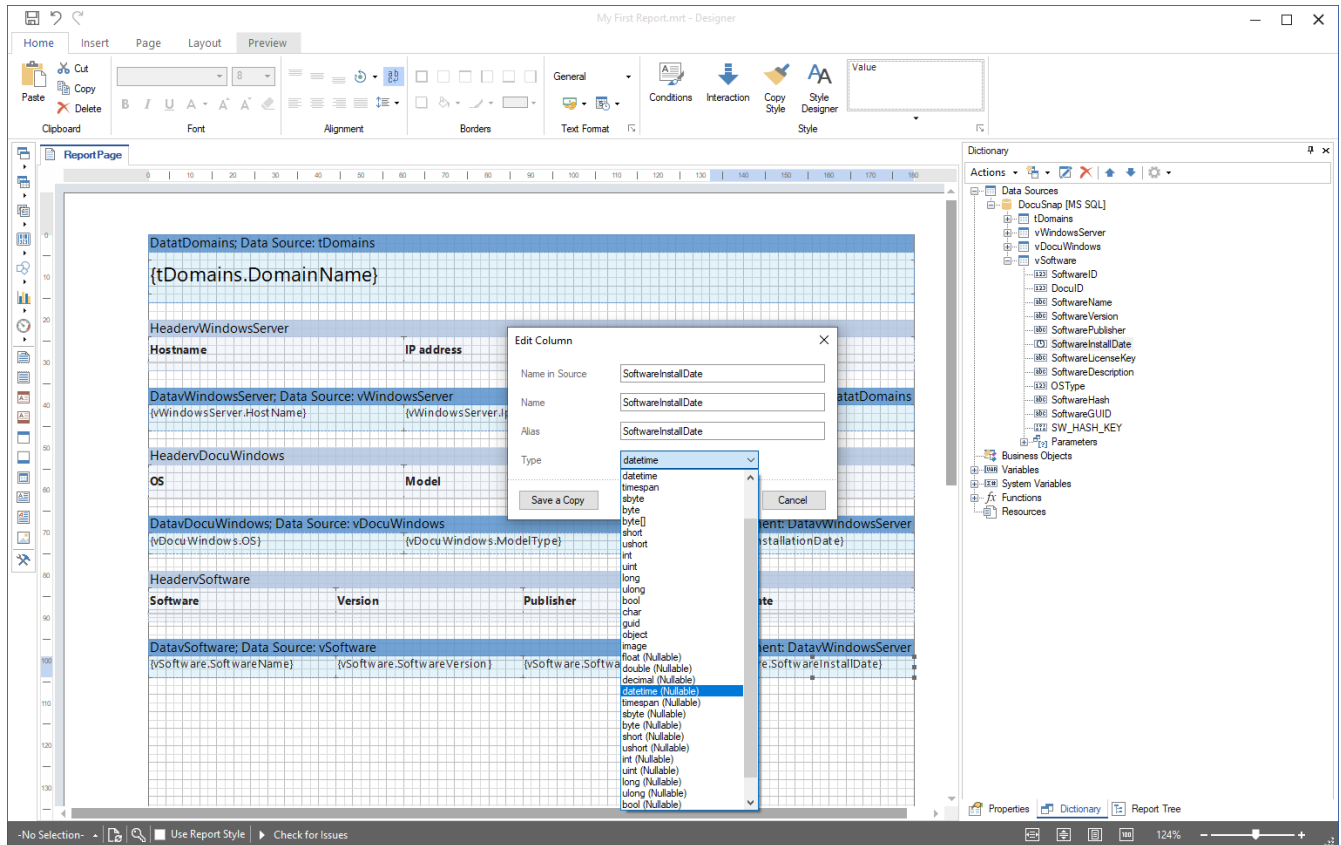


Figure 36 - Hide zero values

4.6.4.1 ADJUSTING THE COLUMN WIDTH

In the preview of the report, you can see that the width of the individual fields can / should be adjusted so that the information can be presented clearly.

To do this, select the field from the data header Tape and the corresponding field from the data tape. In the next step, select the **Property - Other - Width** tab in the information window to adjust the width accordingly. The positioning is then carried out with the mouse.

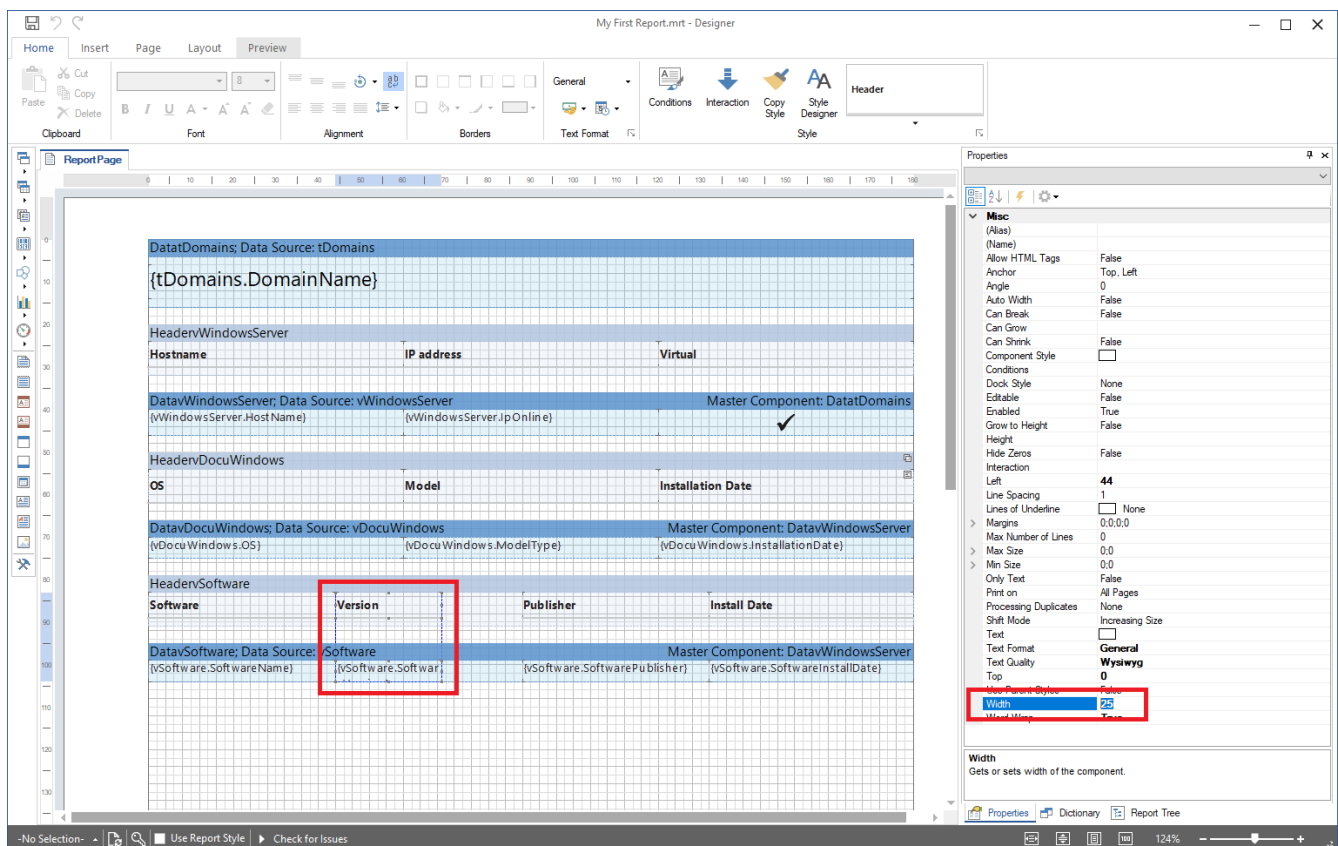


Figure 37 - Adjusting the width of individual fields

4.6.4.2 CUSTOMIZE THE SORT ORDER

By default, the installed software products are sorted by SoftwareID. It would be better to sort them in alphabetical order. You can perform this sorting as follows:

Double click on the data tape DatavSoftware - Sort - Selection by which columns to sort in ascending or descending order.

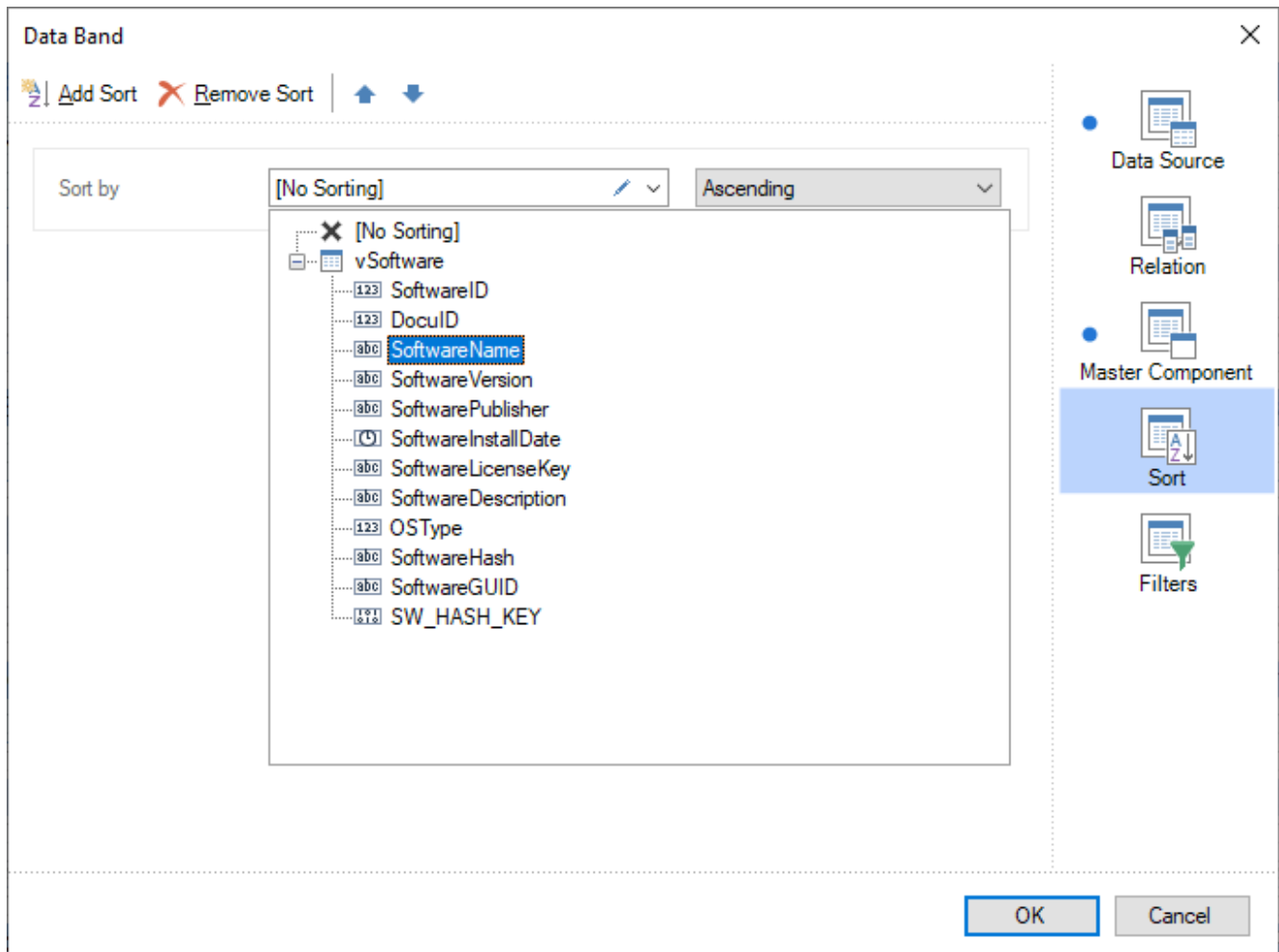


Figure 38 - Customizing the Sort Order

5. FURTHER FORMATTING AND OPTIONS

5.1 OUTPUTTING DATA TAPES ON ALL PAGES

If you look at the report on the second page, you will see that the domain is not output. If you have more than one domain, it would be convenient if the domain is printed again on each page so that the assignment to the domain is immediately visible.

To do this, select the **DatatDomains** data tape and enable the option as follows - **Information window - Properties - Behavior - Print on all pages - True**.

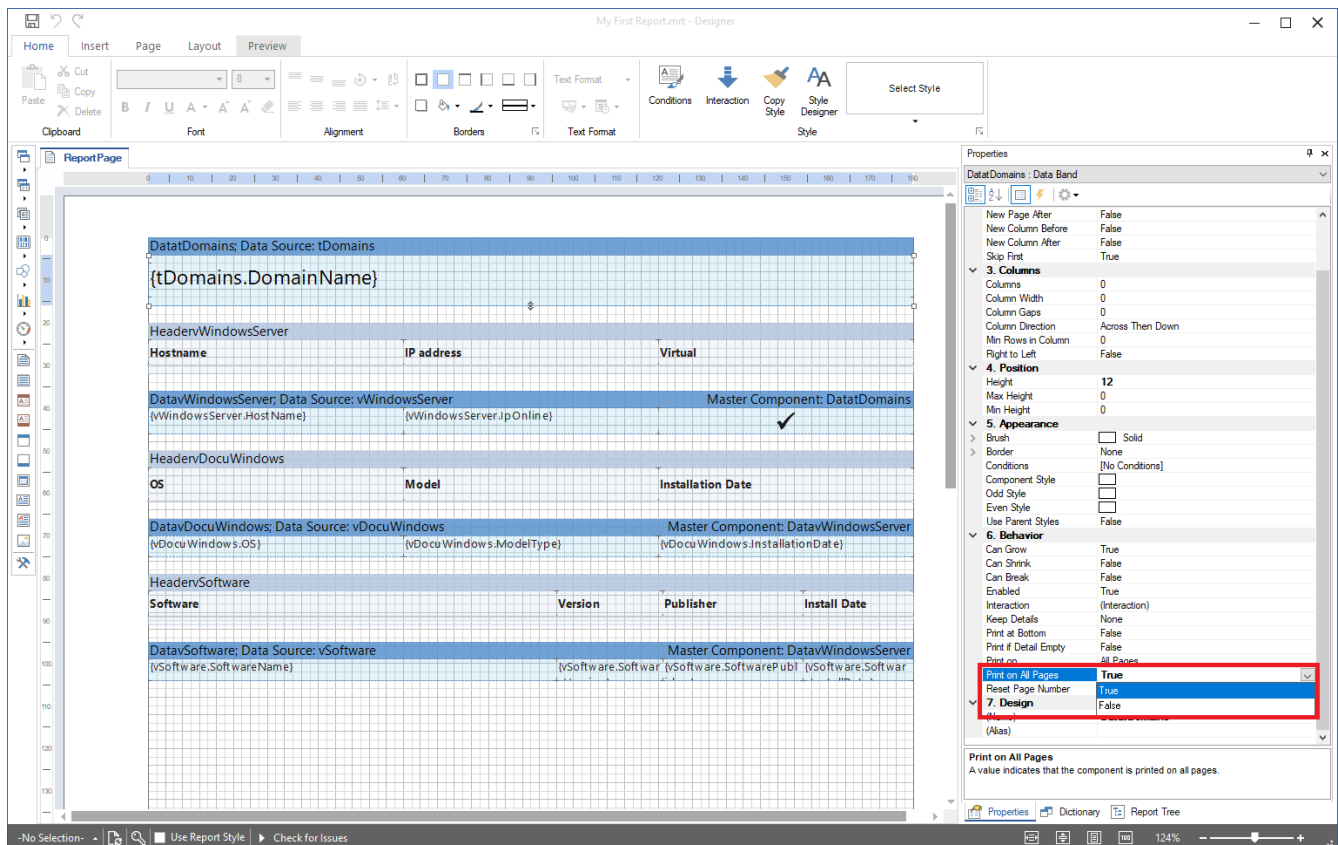


Figure 39 - Option - Print on all pages

Applied to other data tapes, this option means that the data tapes or data header tapes are output on all pages.

You should also make this adjustment to the following data headers and data tapes:

- HeadervWindowsServer
- HeadervDocuWindows
- HeadervSoftware

5.2 OUTPUT NEW DATA RECORDS ON THE NEXT PAGE

It can help the clarity if a new data record is output on a new page. In this report, for example, a new system is output on a new page.

To do this, select the data tape before whose output a new page is to be created. In this example it is the **DatavWindowsServer** data tape. In the Information window, select - Properties - Page and Column Break - Before New Page and set the value **True**.

Furthermore, you can see in the lower right corner that a description is displayed for each selected option.

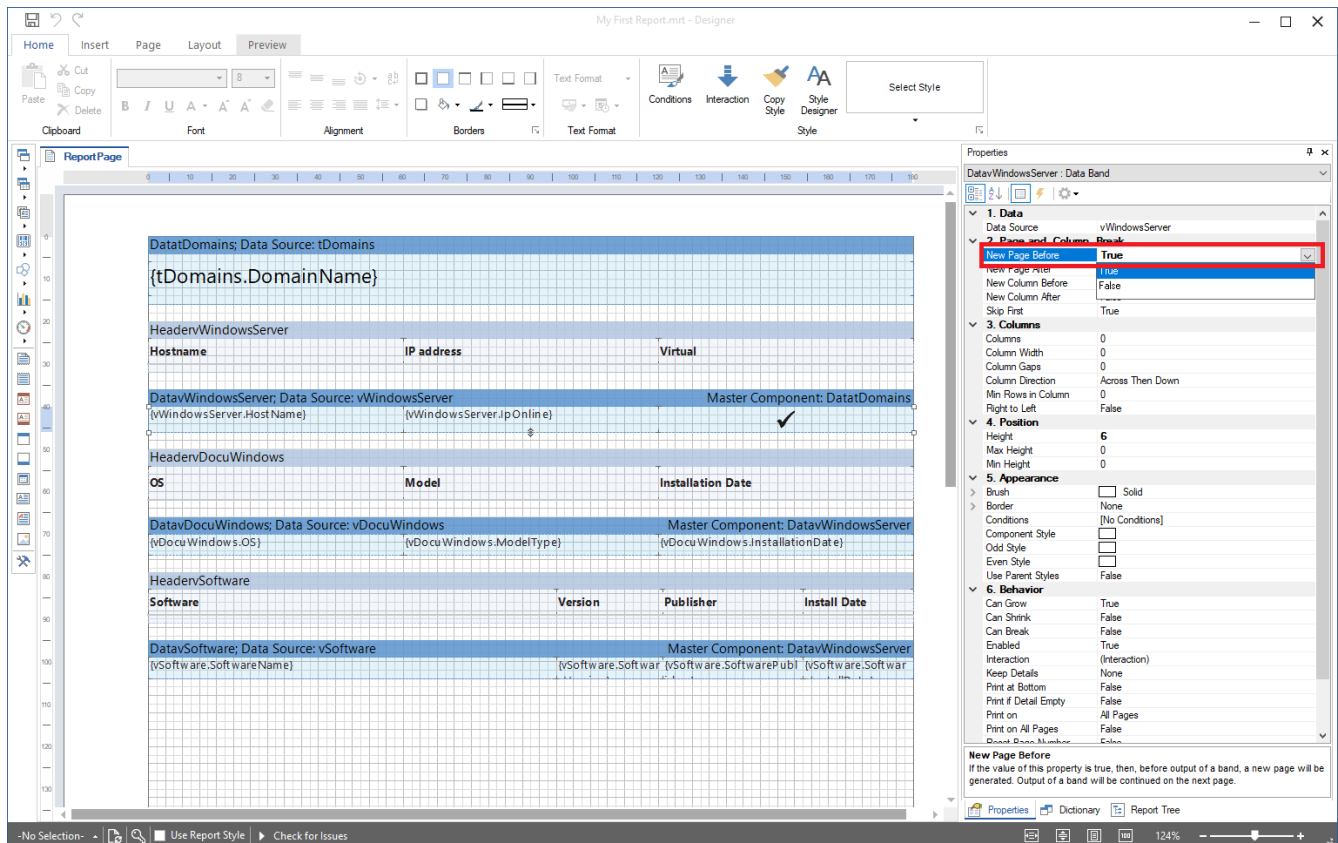


Figure 40 - Option - Before New Page

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VERSION HISTORY

Date	Description
October 7, 2019	Version 1.0 – HowTo created
April 22, 2020	Version 2.0 - Revision of the HowTos for Docusnap 11
