


Reinforcement schedule - bending shapes

Project:
For layout:
Component: AlleBiegeformen
Created: rboenisch
Date / time: 10/27/2010 / 12:07
Note:

All bar shapes

Mark	Number	Ø [mm]	Dimensioned bending shape	Single length [m]	Total length [m]	Mass [kg]
1	11	10	sq	1.50	16.50	10.18
2	8	1				
3	24	1				
4	26	6				
5	4	8				
6	2	1				



Unfinished walls

Project: 105 Quickstat
Created: rboenisch
Date / time: 10/27/2010 / 12:06
Note:

Material	Thick. [m]	Area [m ²]			Volume [m ³]
		Without subtractions	Incl. subtractions	Subtraction > 2.5m ²	
Erdgeschoss					
FAS-MW-TRENNFUG					
	2.0	1.242	1.242	1.242	0.025
	2.0	1.311	1.311	1.311	0.026
	2.0	1.311	1.311	1.311	0.026
	2.0	1.380	1.380	1.380	0.028


Sum FAS-MW-TRENNFUG

Profilwand

Sum Profilwand

WA-STB

Sum WA-STB



Schedule of rooms

Project: 105 Quickstat
Created: rboenisch
Date / time: 27.10.2010 / 10:26
Note:

Name	Function	Base area [m ²]	Volume [m ³]	Outline [m]
00-EG				
00.01				
	DIELE	12,051	33,140	22,620
		Objektname	Material	Menge
	Ausbau	Floor	Parkett	12,375 m ²
		Vertical_Surface	Wandbelag	26,271 m ²
	Inventar	Haustür	HT-SL1-OL	1,000 Pc
		Schiebetür	TI-SCHIEBEA/WHZI	3,000 Pc
	Offnungen	Door opening		-11,025 m ²
00.02				
	WC	3,040	8,360	8,040
		Objektname	Material	Menge
	Ausbau	Floor	Fliesen	2,835 m ²
		Vertical_Surface	Wandbelag	11,052 m ²
	Inventar	Smart window symbol		2,000 Pc
	Offnungen	Window opening		-1,998 m ²

Technical Documentation

Individual Reports – User Layout

Convert existing User Lists

FAQs: Hints and Tricks

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Edit and Create User defined Reports

About this Documentation

This documentation describes how to edit **Allplan Reports** and how to convert *User Defined Lists* to *Reports*.

Later some of the most frequently asked questions are answered, e.g. it is described how the Query of a Report works, what operations are allowed in the query and how to **add Parameters** (e.g. **Note**) to the Report.

Edit and Create Reports

With the Report Templates offered by Nemetschek most of the customers should be satisfied. In some cases however Report Template must be adjusted.

There are **3 Scenarios** of adjustments the user might want to do:

- **Simple Layout Changes**, no changes in functionality (e.g. change Color for a Text or the Height of a Row ...)
- **Exchange and add Allplan Attributes** to a Report Template
- **Layout Modifications and integrate all possibilities of the Report Technology**

This description starts with the conversion of a List to a Report Template. First it is described how to edit the layout with the **Layout Editor** that is integrated in the **Report Viewer** of Allplan.

Later it is described how to add any attribute from Allplan to a Report Template.

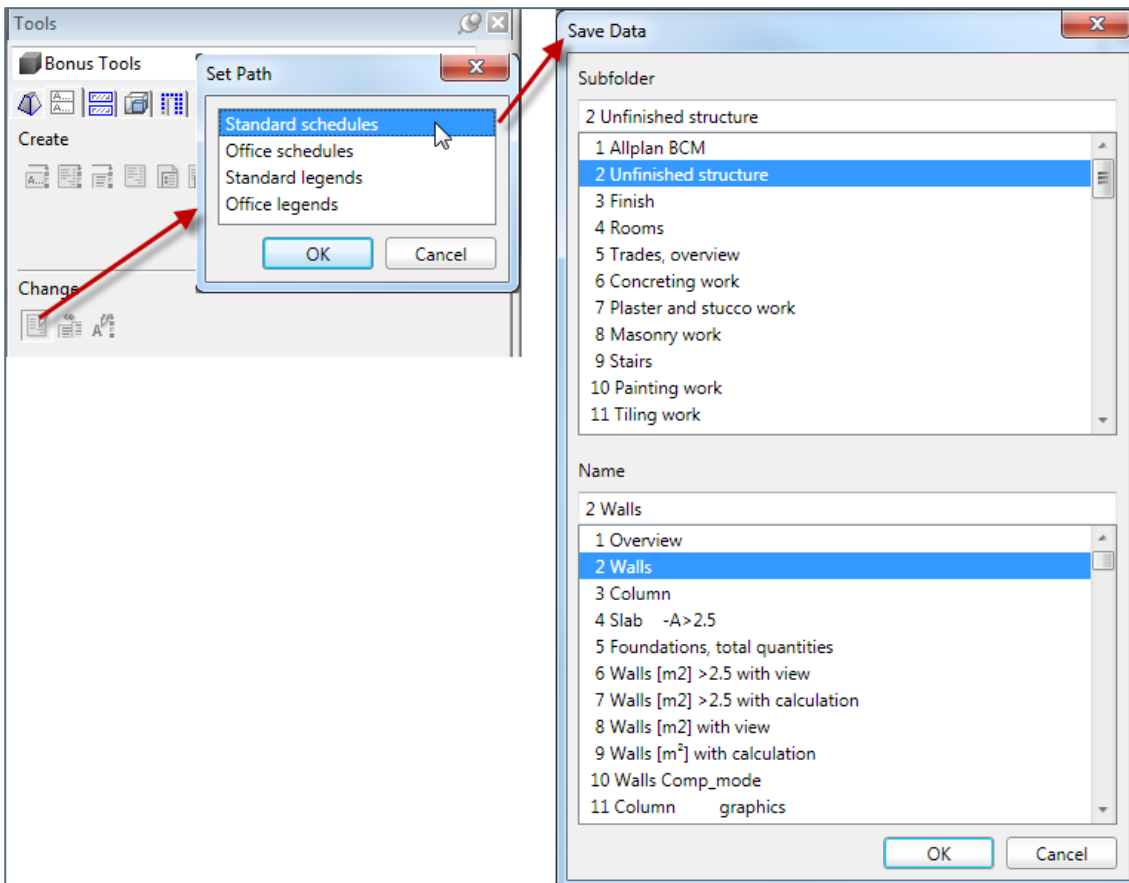
Finally it is described how all the features from the Allplan Reports can be integrated to a Report Template.

For now, let's get started and convert a List ...

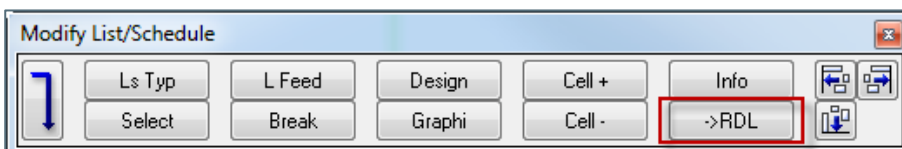
Convert User-Lists to Reports Templates

In this example the List “Walls” from “Unfinished Structures” is converted into a Report and later it is customized.

To convert a List, choose “**Modify List**”:



Then select “**Convert List to RDL**”:

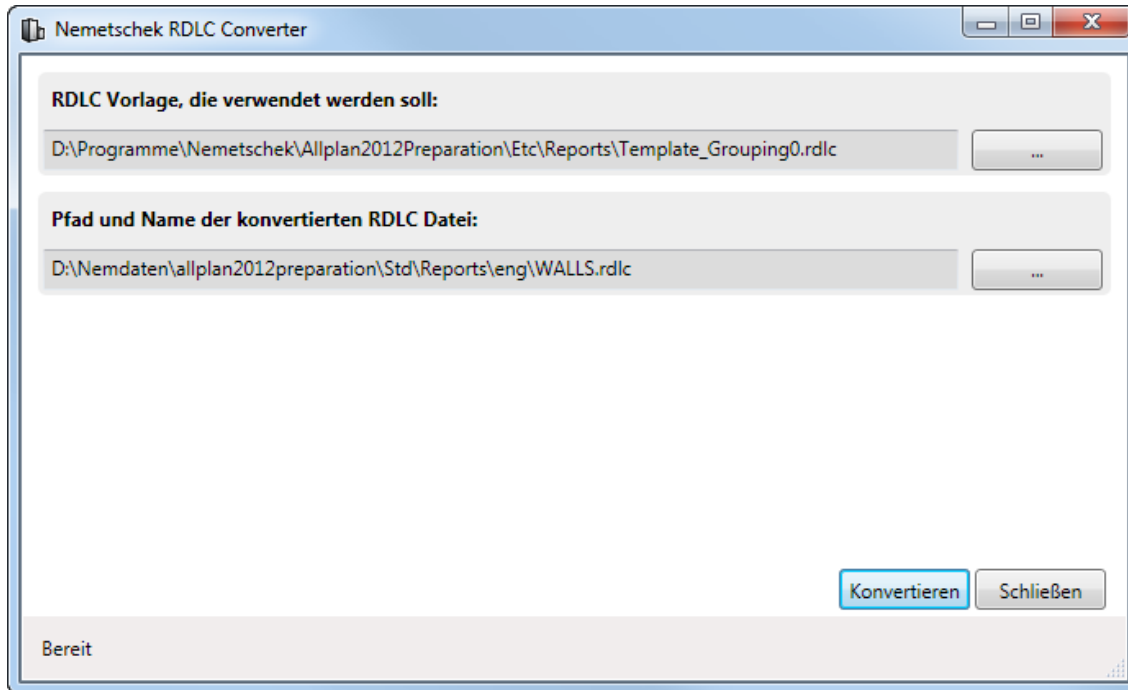


Reports in Allplan

At the top of the following dialog select the template for the general grouping of the tables inside the Report (with **one / two groupings** or **without grouping**). Usually the correct template is selected automatically. So in most cases you don't need to do anything here.

In the line below you can select another directory to where the Report is saved to.

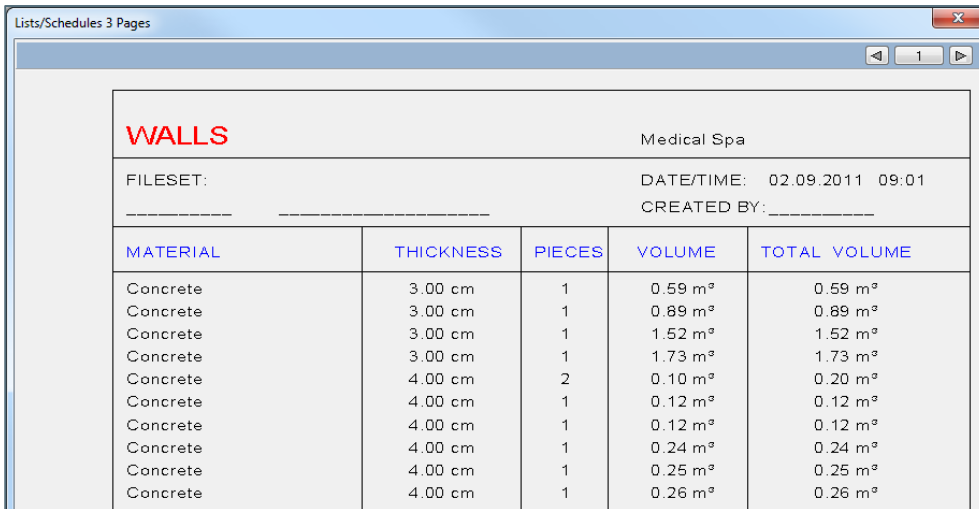
Then simply click on “*Konvertieren*” which will convert the list to a Report:



Reports in Allplan

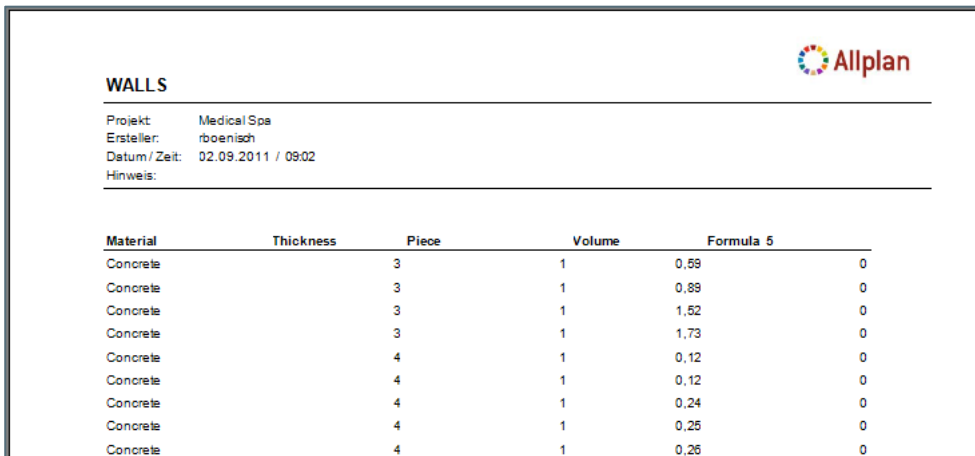
Now the List is converted to a Report Template and can be used. The Layout is very poor and basic though! So the next step is to work on the Layout of the Report.

The original List:



MATERIAL	THICKNESS	PIECES	VOLUME	TOTAL VOLUME
Concrete	3.00 cm	1	0.59 m ²	0.59 m ²
Concrete	3.00 cm	1	0.89 m ²	0.89 m ²
Concrete	3.00 cm	1	1.52 m ²	1.52 m ²
Concrete	3.00 cm	1	1.73 m ²	1.73 m ²
Concrete	4.00 cm	2	0.10 m ²	0.20 m ²
Concrete	4.00 cm	1	0.12 m ²	0.12 m ²
Concrete	4.00 cm	1	0.12 m ²	0.12 m ²
Concrete	4.00 cm	1	0.24 m ²	0.24 m ²
Concrete	4.00 cm	1	0.25 m ²	0.25 m ²
Concrete	4.00 cm	1	0.26 m ²	0.26 m ²

The converted Report:



Material	Thickness	Piece	Volume	Formula 5
Concrete	3	1	0.59	0
Concrete	3	1	0.89	0
Concrete	3	1	1.52	0
Concrete	3	1	1.73	0
Concrete	4	1	0.12	0
Concrete	4	1	0.12	0
Concrete	4	1	0.24	0
Concrete	4	1	0.25	0
Concrete	4	1	0.25	0

To adjust the Layout you can use the **Layout Editor** that is integrated in the **Report Viewer**. This is shown in the first example. With this tool you can handle all the layout changes you wish to do.

But in case you want to do more than simple Layout changes you will have to use **Microsoft Visual Web Developer 2008 Edition** or **Visual Studio 2008** in order to do so.

Simple Layout Changes

If you only want to do little changes to a Report you shall simply use the tools that come with the new Reporting System: Inside the Layout Editor you can do all the changes you want ...

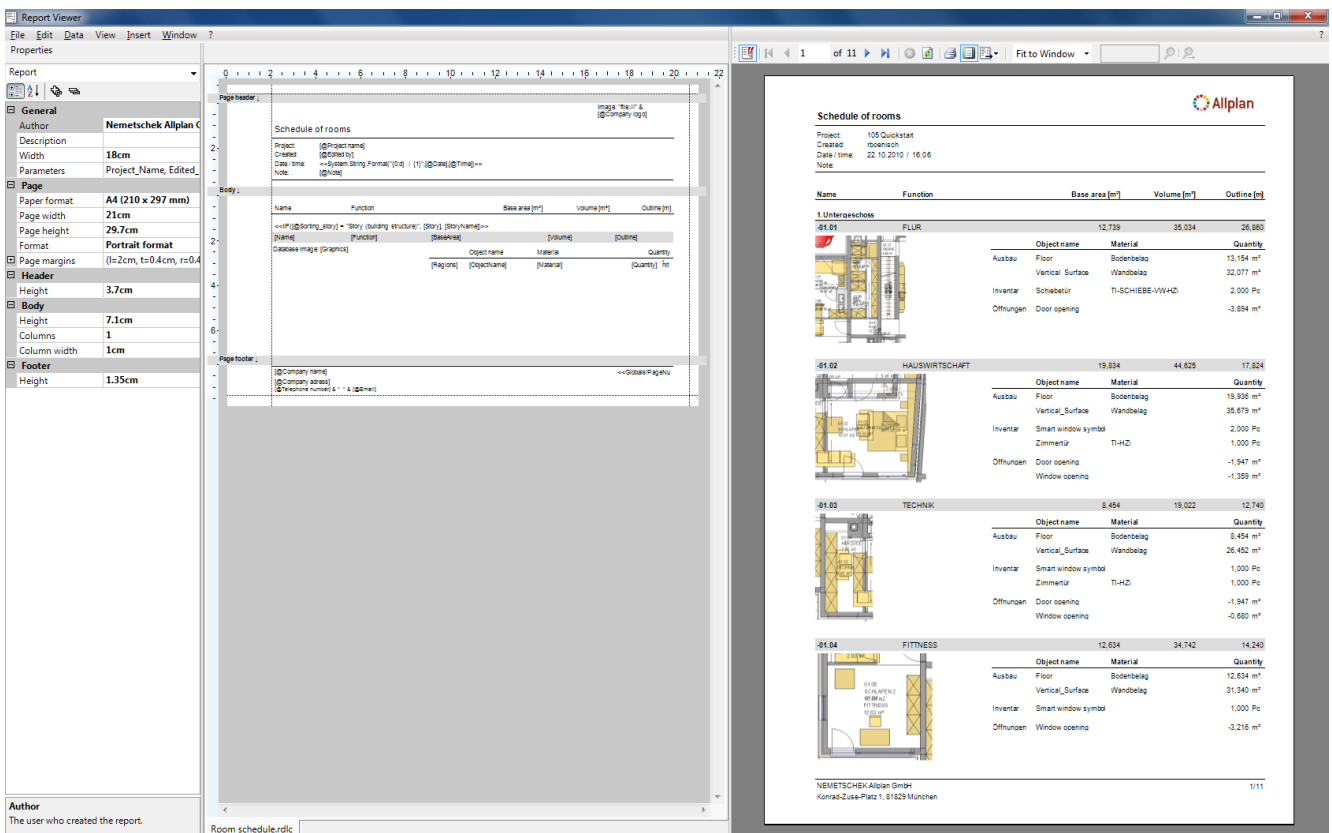
In this example the German Report for "Room Schedule (room.rdlc)" is used.

This is what you need to do:

- Open Report in **Layout Editor**
- Do changes in Layout Editor
- Save ... to Office-directory ...

Layout Editor

The **Layout Editor** is used for simple layout modifications to existing Reports. E.g. change the **height** and **width** of cells, assign different **font-style**, **background color** of cells and text-fields, change the **paper format**, do general changes to the header and footer, change column headers, add / remove subtotals ...



The screenshot displays the Allplan software interface for editing reports. On the left, the 'Report Viewer' window shows the 'Properties' panel with various settings for the report, such as 'Author: Nemetschek Allplan', 'Page format: A4 (210 x 297 mm)', and 'Header Height: 3.7cm'. The main area of the Report Viewer shows a preview of the 'Schedule of rooms' report, which includes a table with columns for Name, Function, Base area [m²], Volume [m³], and Outline [m].

The right pane shows the 'Layout Editor' for the 'Schedule of rooms' report. It displays a preview of the report output, including a table of room data and a small floor plan diagram. The table data is as follows:


Name	Function	Base area [m²]	Volume [m³]	Outline [m]
1 Untergeschoss	FLUR	12.739	35.034	26.860
01.01	FLUR	12.739	35.034	26.860
01.02	HAUSHIRTSCHAFT	19.034	44.625	17.024
01.03	TECHNIK	8.454	19.022	12.742
01.04	FITNESS	12.634	34.742	14.240

Controls (Elements) inside Report Templates

Report Templates can contain the following controls / items: Lines, Rectangles, Textboxes, Images, Tables, Matrices, Lists, Subreports and Charts.

Subreports and Charts however are not used within the Allplan Report up to now (Version 2012).

Text, Text, Text Text...



[Material]

<<IIF([@Sorting_Story] = "Story", [Story], [StoryName])>>

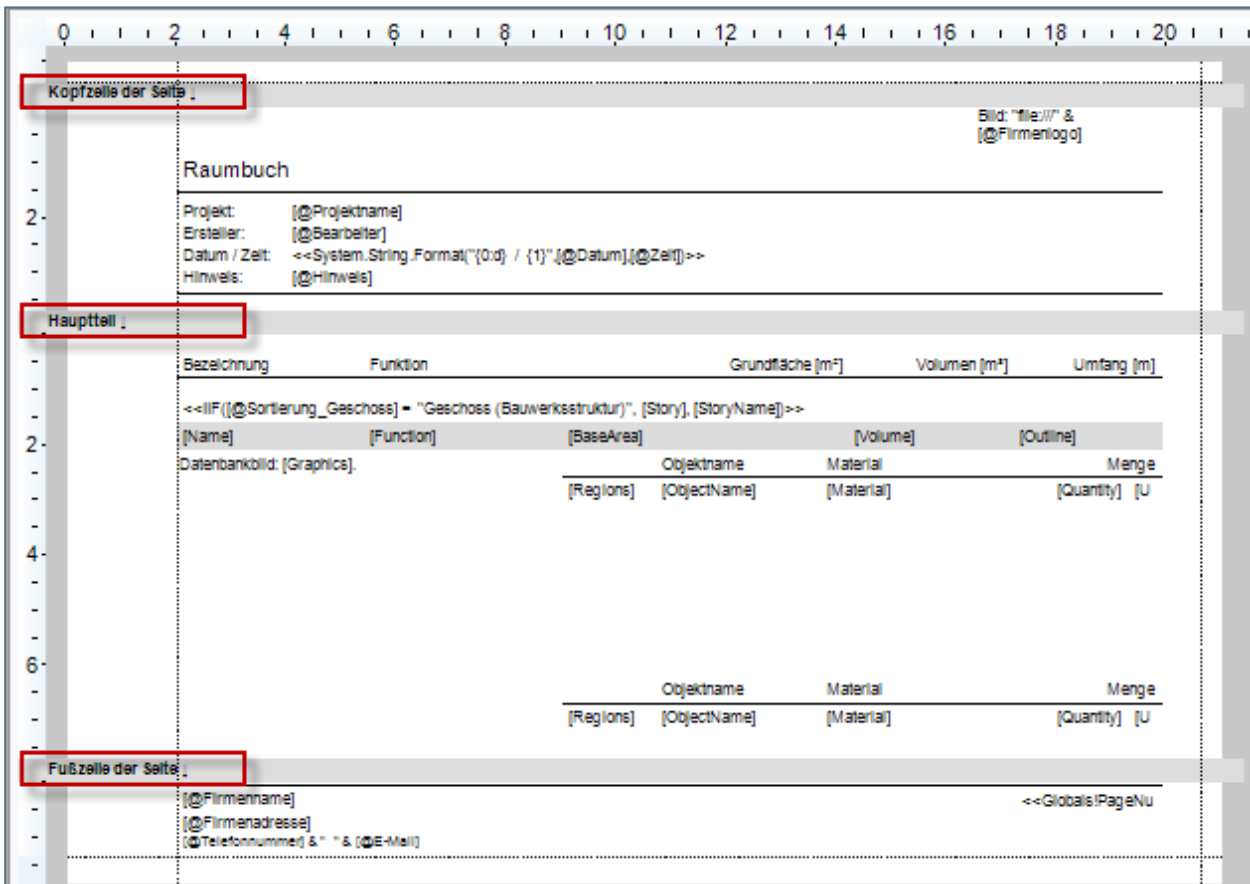
Tabelle

Matrix

Liste

Structure of a Report

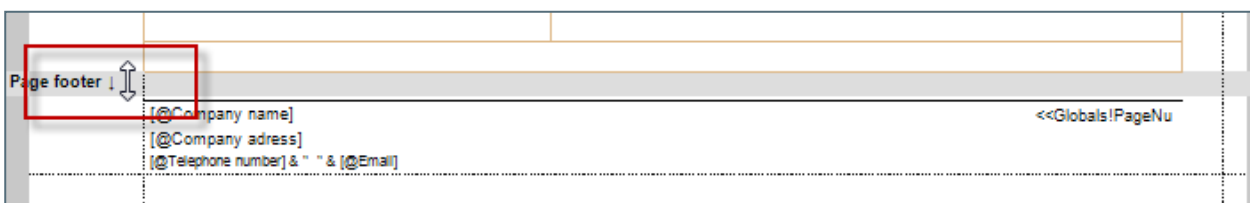
Each Report contains a **Header**, **Body** and **Footer**.



The screenshot shows a report layout with a horizontal ruler at the top (0 to 20) and a vertical ruler on the left (0 to 6). The report is divided into three main sections:

- Kopfzeile der Seite (Header):** Contains the text "Raumbuch" and a logo placeholder: `Bild: "file://" & [Firmenlogo]`.
- Hauptteil (Main Body):** Contains a table with columns: Bezeichnung, Funktion, Grundfläche [m²], Volumen [m³], and Umfang [m]. The table content is generated by a code block: `<<IF([Sortierung_Geschoss] = "Geschoss (Bauwerksstruktur)", [Story], [StoryName])>>`. The table has two data rows with columns: [Name], [Function], [BaseArea], [Volume], [Outline]. The first row contains: Datenbankbild: [Graphics], [Regions], [ObjectName], [Material], [Quantity] [U]. The second row contains: [Regions], [ObjectName], [Material], [Quantity] [U].
- Fußzeile der Seite (Footer):** Contains company information placeholders: `[Firmenname]`, `[Firmenadresse]`, `[Telefonnummer] & " " & [E-Mail]`, and a page number placeholder: `<<Globals!PageNu`.

You can resize the header, footer or body in the palette or by dragging it:

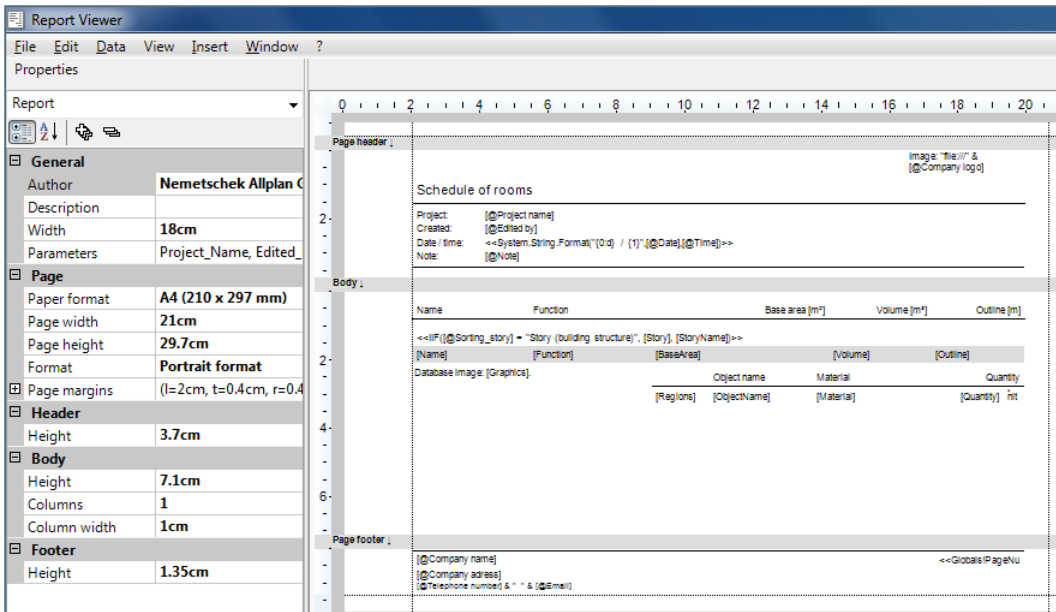


The screenshot shows a close-up of the footer section of the report. A red box highlights the "Page footer" label and a vertical double-headed arrow, indicating that the height of the footer section can be adjusted by dragging it.

Selection

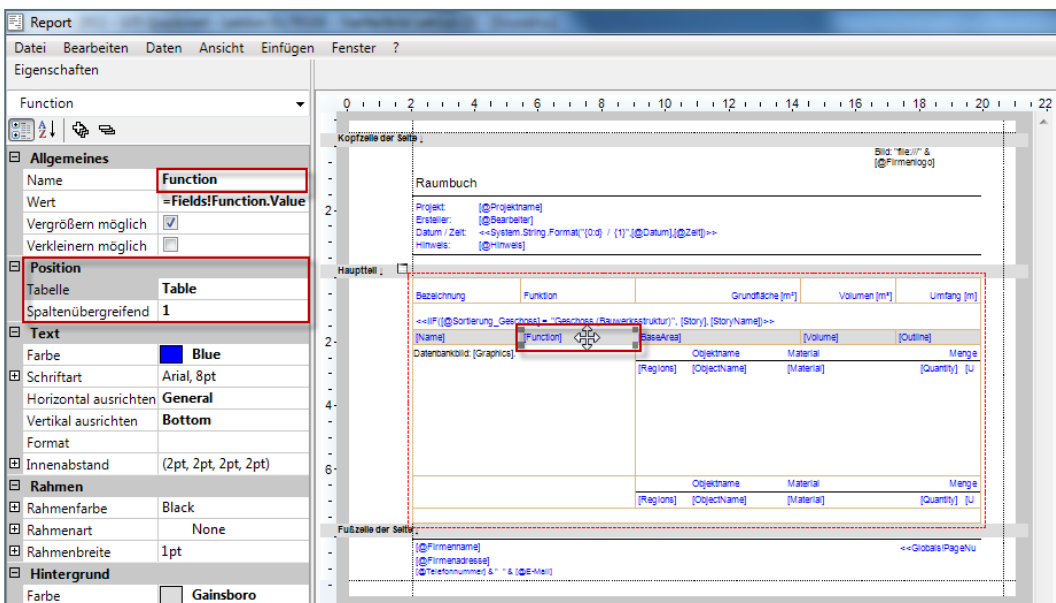
The **Property Palette** of the Layout Editor always shows the properties of the selected element.

If no element is selected, the selection refers to the report itself. Here you can change the page properties such as format and general page setup, change the height of the header, footer and body.

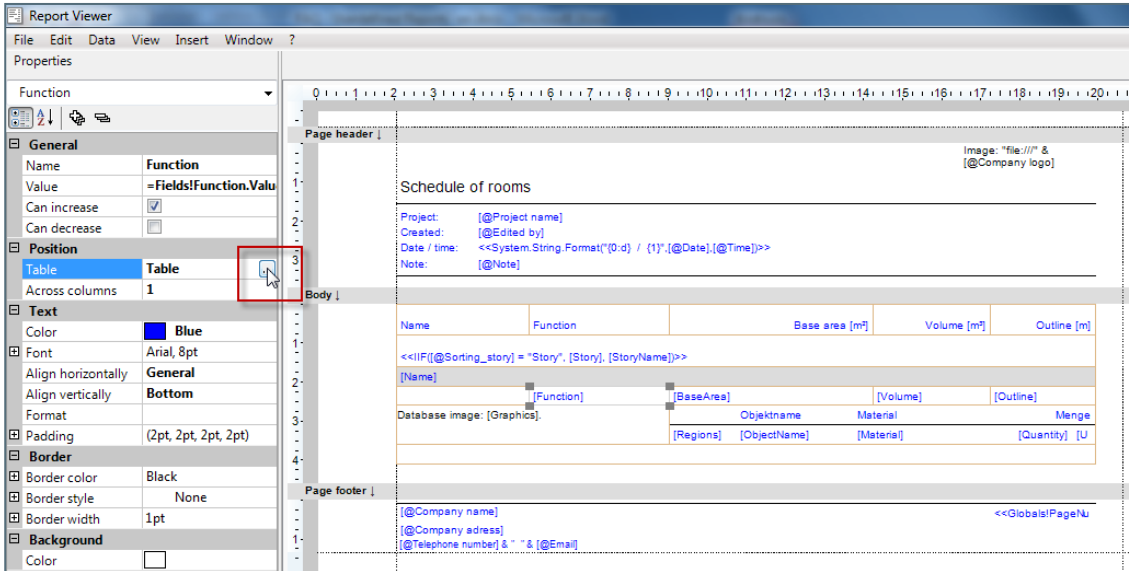


By clicking on a **Textbox** or **Cell** of a table, the properties in the palette refer to the selected item. You can also select items in the Element Pulldown (palette).

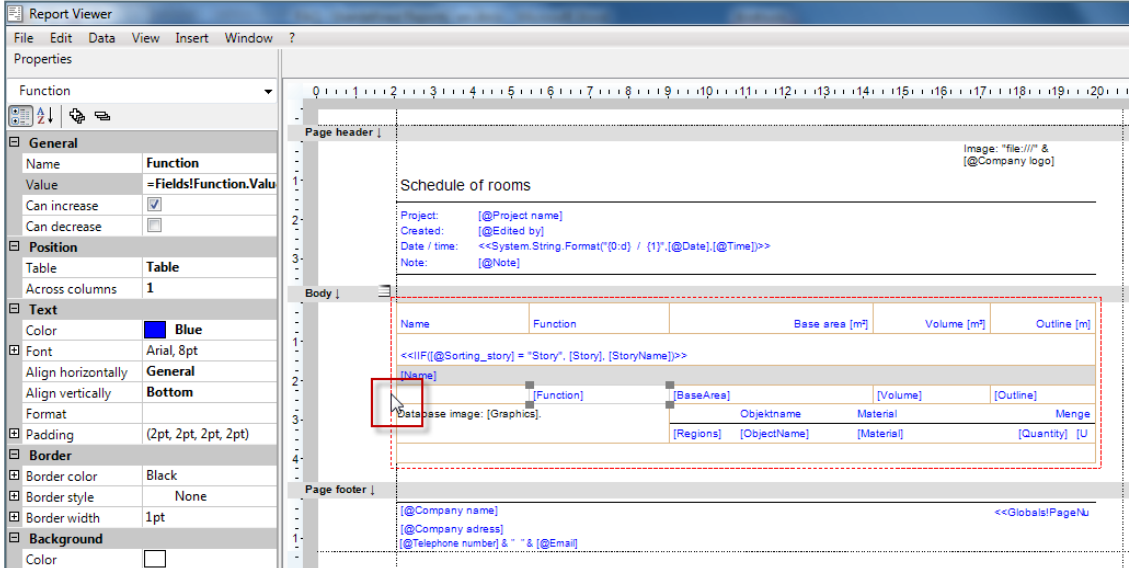
Each control has **general properties** (name, value), properties describing its **position**, **text** properties (font, color, alignment, offset), **border** properties (color of frame, thickness) and **background** color properties. The **Position** refers to the containing element (e.g. a *TextBox* in the *PageFooter* is positioned inside the edges of the footer or the *Logo* inside the *LogoPlaceholder*).



In order to select the table which includes the cell you have selected before, you can either click on the table in the **position section** of the properties palette ...



... or click on an edge of the highlighted frame of the table:

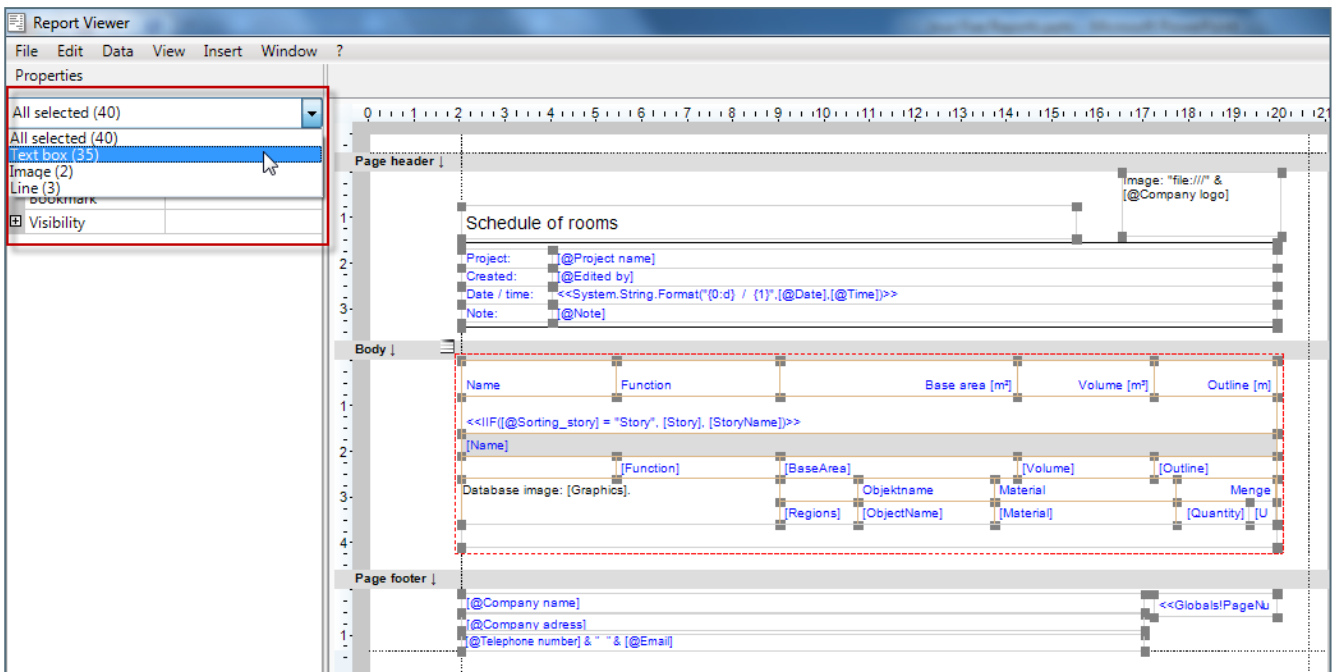


Multi Selection

It is possible to select several elements at a time

- by defining an area with the mouse
- use Ctrl-A to select all elements
- Ctrl+Click to add another element to the selection
- Then use the Pulldown in the palette to filter the selection

In the picture below all elements have been selected in the first step – then the selection is filtered via palette Pulldown. Only the text boxes are selected afterwards:



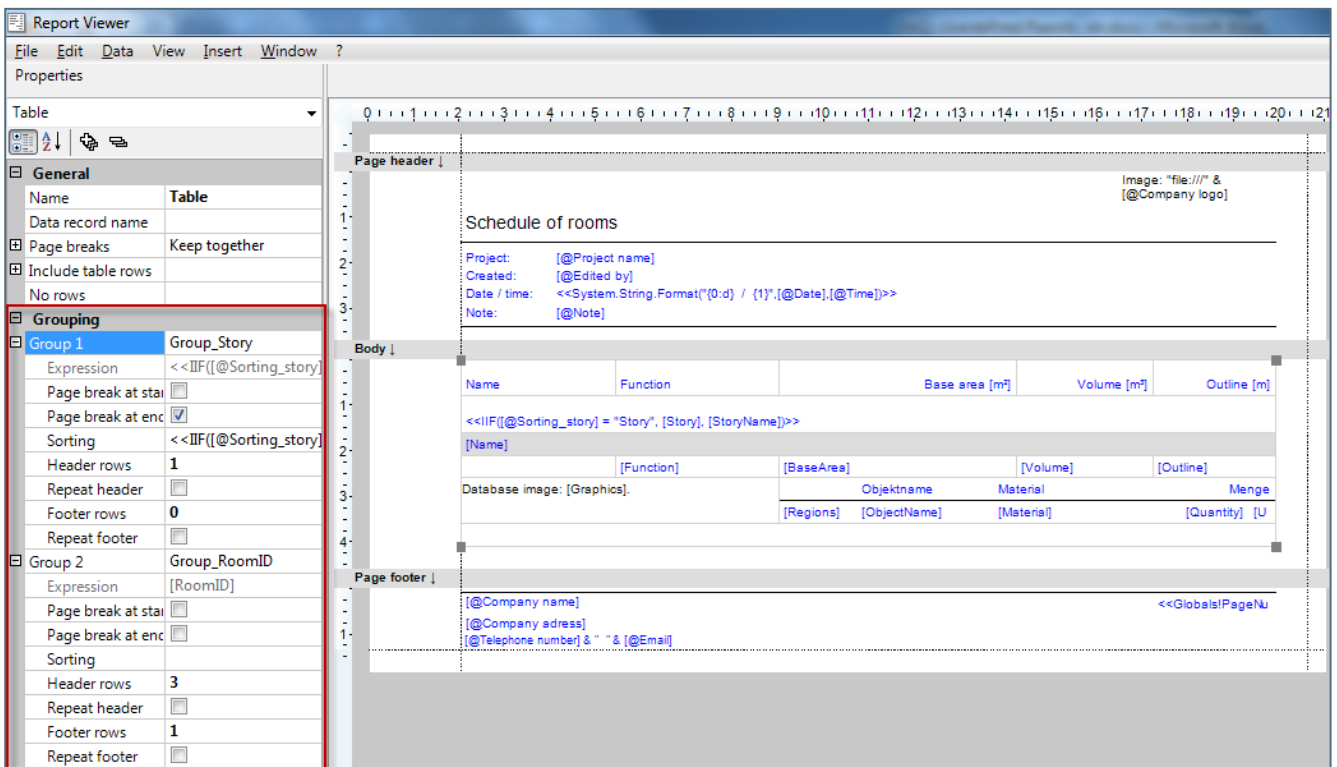
Tables

In addition, tables can be **grouped**. Groups influence the order of the data inside the report. But not only the order: you can have *separate headlines* for each group and also a footer with a *subtotal* to add up only the elements of that group. E.g. the main table in the Report “**Room Schedule**” is grouped by **story** and by **RoomID**.

As you can see in the picture below “**Group_Story**” creates a group for each story (either by **Building Structure** or by a **defined story** [there is a condition to switch between building structure and the defined story]: “<<IIF([@Sorting_story] = "Geschoss", [StoryIndex], [StoryName])>> Ascending”).

“**Group_RoomID**” creates a group for each room.

If you want to have a sum over the group you need to add a footer row. To add a footer row for the grouping you need to set the value for “*Footer rows*” to “1”. This will add a row to the report. In case it does not fit in the provided space you have to resize the height of the report body.



The screenshot shows the 'Report Viewer' interface. On the left, the 'Properties' pane is open to the 'Table' section, specifically the 'Grouping' sub-section. Two groups are defined:

- Group 1: Group_Story**
 - Expression: <<IIF([@Sorting_story]
 - Page break at start:
 - Page break at end:
 - Sorting: <<IIF([@Sorting_story]
 - Header rows: 1
 - Repeat header:
 - Footer rows: 0
 - Repeat footer:
- Group 2: Group_RoomID**
 - Expression: [RoomID]
 - Page break at start:
 - Page break at end:
 - Sorting: [RoomID]
 - Header rows: 3
 - Repeat header:
 - Footer rows: 1
 - Repeat footer:

The main preview area shows a report titled 'Schedule of rooms'. It includes a page header with project information and a table with columns: Name, Function, Base area [m²], Volume [m³], and Outline [m]. The table content is filtered by the 'Group_Story' expression: <<IIF([@Sorting_story] = "Story", [Story], [StoryName])>>. Below the table, there is a footer row for the group, containing company name, address, and telephone number information.

Reports in Allplan



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However the Report *Room Schedule* has no subtotal row.

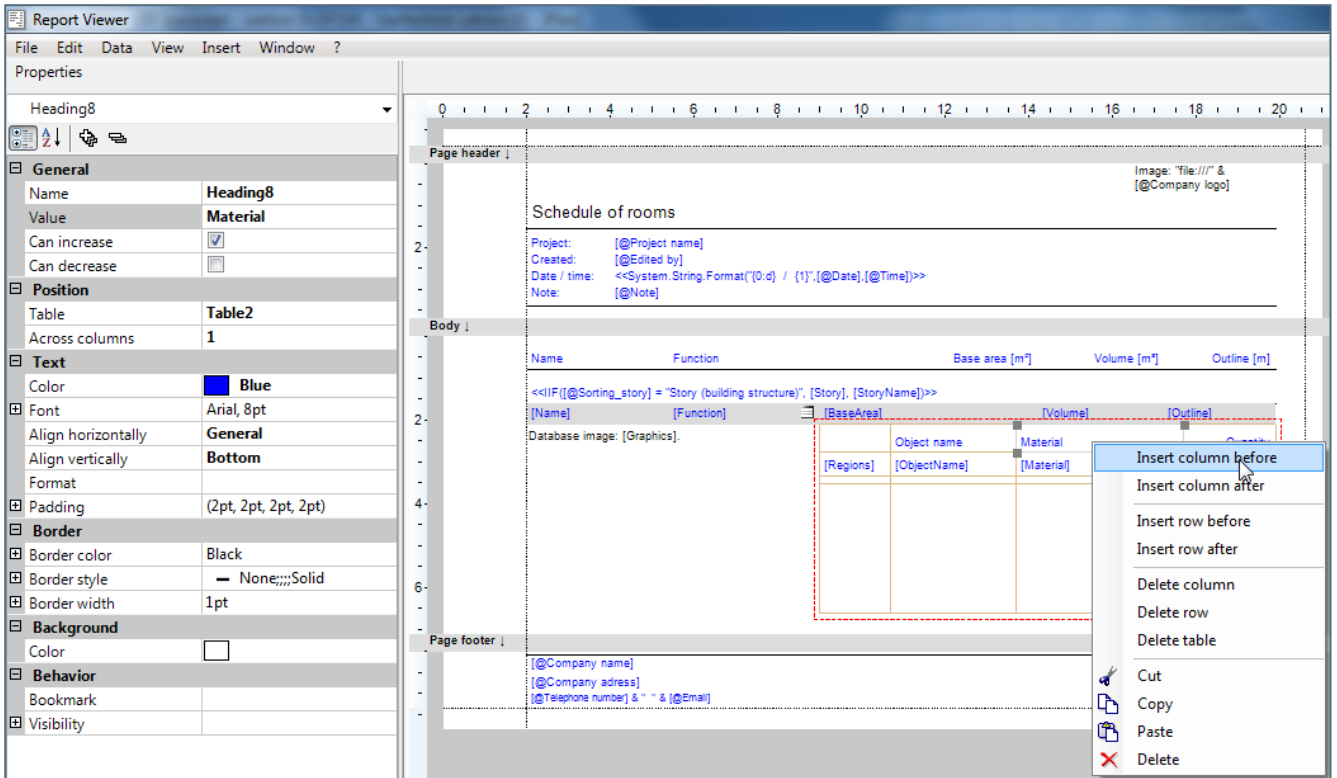
Here is an example of a report with two groupings and subtotals. It's the report "**Unfinished Walls**" – in German it is "**Rohbau – Wände**":

The screenshot shows the 'Report Viewer' interface with a configuration panel on the left and a report preview on the right. The configuration panel is divided into 'General' and 'Grouping' sections. In the 'Grouping' section, 'Group 1' is set to 'Group_Story' and 'Group 2' is set to 'Group_Material'. The 'Header rows' and 'Footer rows' for both groups are set to 1. The 'Repeat header' checkbox is checked for Group 1. The report preview shows a table with columns for Material, Thickness, Area, Net Area, Job Area, and Volume. The table includes a header row, a row for each story, and a total sum row. The report title 'Unfinished walls' is highlighted in red in the preview. The page header and footer contain project information and company details.

Material	Thick. [cm]	Area [m ²]	Volume [m ³]		
		Without subtractions	Incl. subtractions	Subtraction > 2.5m ²	
[Story]					
[Material]					
Database image: [Graphics].	[Thickness]	[Area]	[NetArea]	[Vob_Area]	[Volume]
"Sum " & [Material]		<<Sum([Area])>>	<<Sum([NetArea])>>	<<Sum([Vob_Area])>>	<<Sum([Volume])>>
"Sum " & [Story]		<<Sum([Area])>>	<<Sum([NetArea])>>	<<Sum([Vob_Area])>>	<<Sum([Volume])>>
Total sum		<<Sum([Area])>>	<<Sum([NetArea])>>	<<Sum([Vob_Area])>>	<<Sum([Volume])>>

Insert Columns in Tables

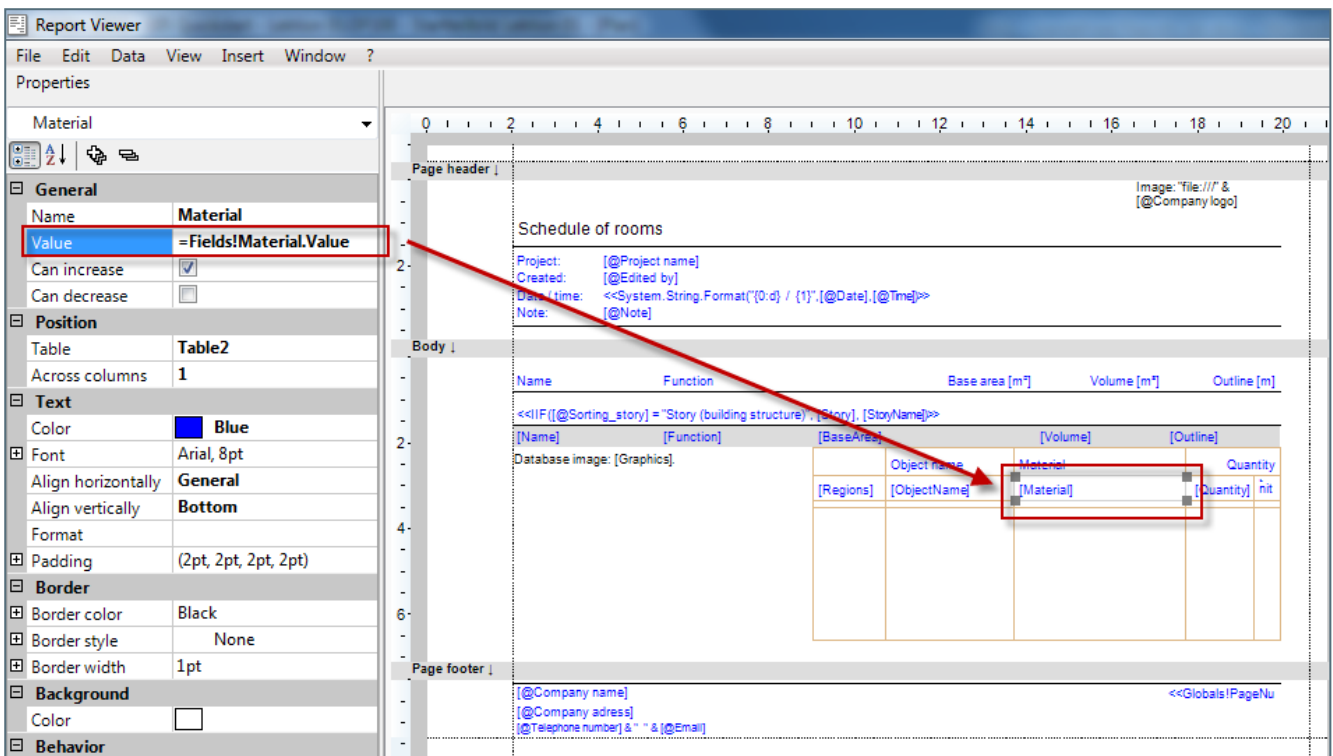
To insert a column inside a table use *right mouse button click* and insert the new column before or after the existing one:



Assign Values

You can assign **parameters**, **fields** or **expressions** to report items. **Parameters** have one unique value inside a report such as project name, office name and so on. **Fields** have a unique value for each evaluated element. With expressions you can combine parameters and fields and recalculate the values as you like.

To assign a field to a cell of a table, select “*Value*” in the general properties and type “*=Fields!NameofTheField.Value*”, e.g. “*=Fields!Material.Value*”. You can also use a simpler syntax and type “*[Material]*” in the property palette.



Sums automatically sum up all the elements of a group. In the **footer row** of a group you can enter the definition for the sum which is “*=Sum(Fields!Quantity.Value)*”. This sum automatically refers to its specific group. Maybe in this example it does not make sense – but this is how it is done with the sums for the groups.

Reports in Allplan

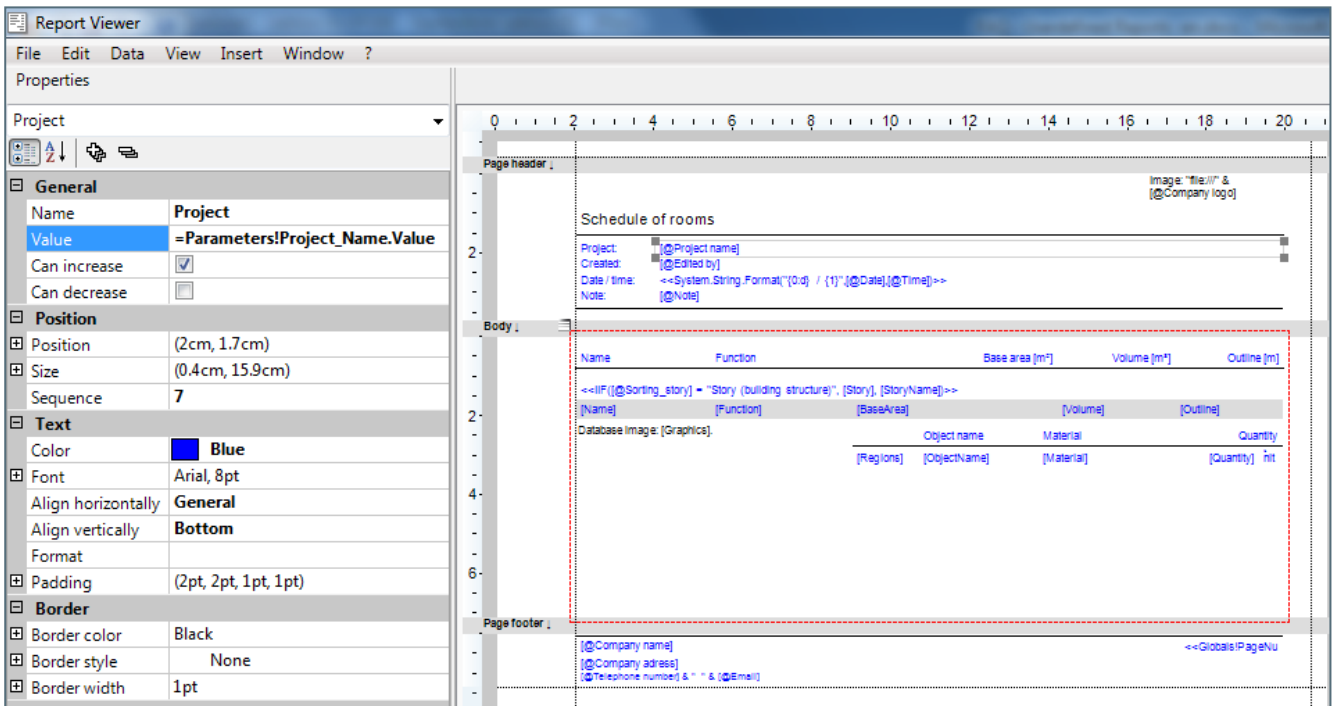


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The syntax for parameters is:

=Parameters!NameofTheParameter.Value, e.g. **=Parameters!Project_Name.Value**

In the definition window it is **[@ParameterName]**.



Add an Allplan Attribute to an existing Report

There are 2 things that cannot be done inside a Visual Tool like the *Report Designer* or *MS Visual Web Developer 2008 Edition*: One thing is to add a **Parameter**, the other is to add an **Attribute** you want to evaluate.

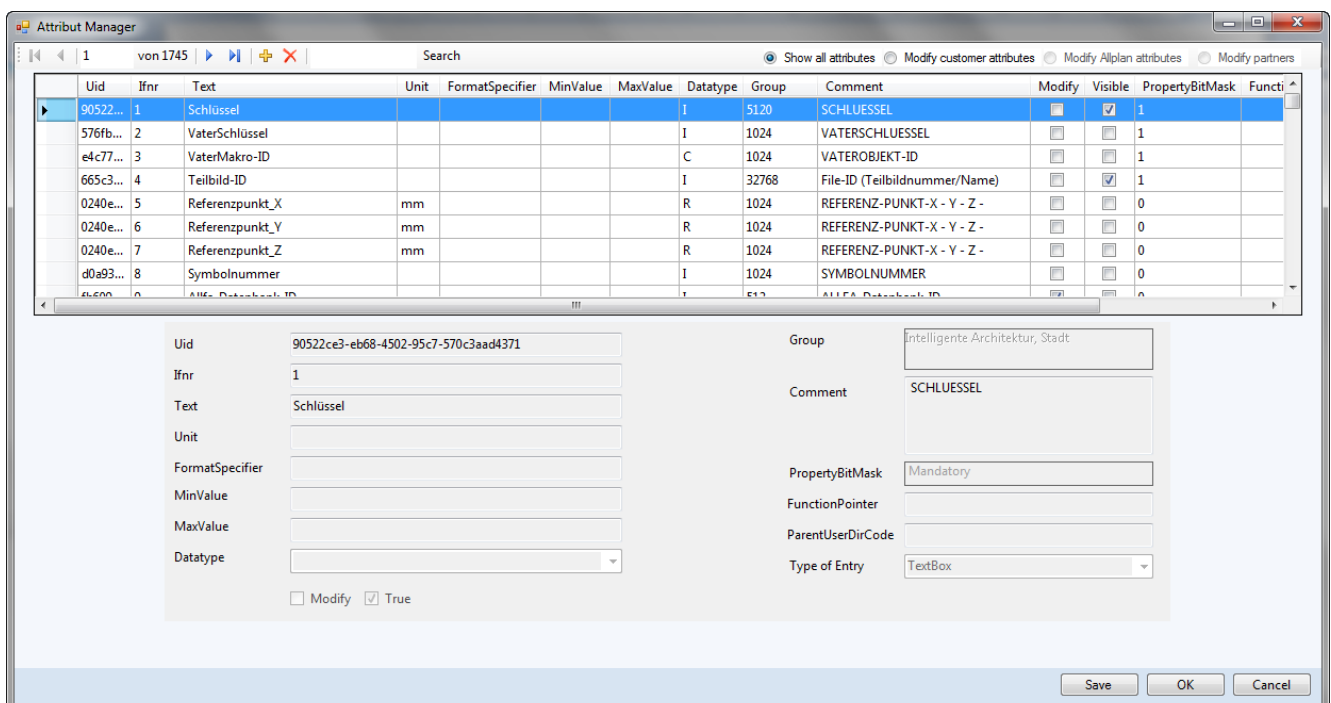
In order to add another Allplan Attribute to the Report you need to **add a field to the report**. The Report does not know anything about Allplan Attributes – it only knows about fields which are defined within the Report template ... and such field can reference to an Allplan Attribute.

So whenever you want an extra Attribute to be evaluated you need to do 2 steps (only possible in a Text-Editor):

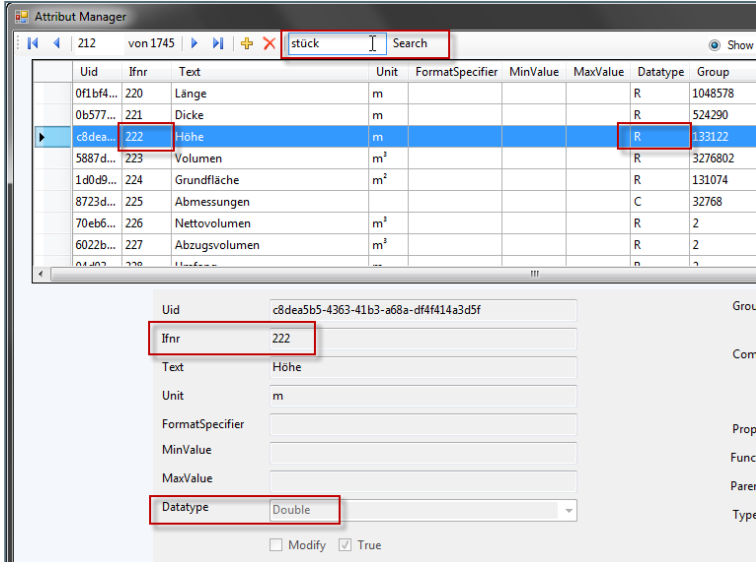
1. Insert the **attribute number** into the **Query** of the report
2. Add a **field** to the report which uses the Query statement

Find out the Allplan Attribute

First of all you will have to find out the **Allplan Attribute Number** you want to use for the report: You can either look it up in an existing List which includes the missing attribute via “*Modify List*”-function or use the tool “*NemAll_AttribDefEditor.exe*” which can be found in the *Allplan-Prg-Directory*:



Here you can search for an attribute, e.g. “**Höhe**” (=height). As you can see – the attribute-number is “**222**” and the Datatype is “**Double**”:



Data Types

Data Types used in lists and reports are:

- Character (“C”): refers to the type “**System.String**” in the Report
- Integer (“I”): refers to “**System.Int32**”
- Real (“R”): refers to “**System.Double**”
- Only in Report Template: Graphics: “**System.Byte[]**”

Add the Field in an Editor

Once again: This cannot be done in Report Designer!

The report items such as text boxes or cells of tables refer to values of fields that are defined in the report itself. Therefore you find a *Fields-Section* inside the report where all the fields are defined (text-editor only).

The report does not know Allplan Attributes – it only knows what fields are defined within it: e.g. you can have a field called *height* and you use it like this as value for a cell: “=Fields!Height.Value”. You have to combine the field to an Allplan Attribute in the *Query Section* of the report...

In order to add a **Field** for the **DataSet** you have to edit the rdlc-File in a Text-Editor. You can either use **Microsoft Visual Web Developer 2008** or any other Text-Editor, e.g. “**Notepad++**”.

Further description to **Microsoft Visual Web Developer 2008** can be found in the chapter “*Adjust the Layout with Microsoft Visual Web Developer 2008*”.

In the **RDLC-File** add a new **Field** in the **DataSets-Section**:

```
<DataSets>
  <DataSet Name="AllplanReport_Room">
    <Fields>
      <Field Name="Einheit">
        <DataField>Einheit</DataField>
        <rd:TypeName>System.String</rd:TypeName>
      </Field>
      <Field Name="Material">
        <DataField>Material</DataField>
        <rd:TypeName>System.String</rd:TypeName>
      </Field>
      <Field Name="Kurztext">
        <DataField>Kurztext</DataField>
        <rd:TypeName>System.String</rd:TypeName>
      </Field>
```

E.g. add the field “**Height**”. You must make sure you define the same **Datatype** (here: Double) as described in “**NemAll_AttribDefEditor**”:

```
<Field Name="Kurztext">
  <DataField>Kurztext</DataField>
  <rd:TypeName>System.String</rd:TypeName>
</Field>
<Field Name="Height">
  <DataField>Height</DataField>
  <rd:TypeName>System.Double</rd:TypeName>
</Field>
```

Combine the field to an Allplan Attribute (attribute-number) in the **Query-Section**.

The expression for the Query must be after the following pattern. Field-expressions are separated by comma:

```
SELECT {fieldexpression, fieldexpression, ... , fieldexpression} FROM [{expression, expression, ..., expression}]
```

A typical *fieldexpression* looks like this:

```
@222@[Name=Height]
```

The Format Definition (Fmt=XXX) can be left out – it was only needed in the past for the old Lists:

```
<Query>
  <DataSourceName>DummyDataSource</DataSourceName>
  <CommandText>SELECT
    @202@[Name=Einheit|Fmt=A4]
    FROM [Type=0,Filter=@GW@.eq.23;]

    SELECT
    @508@[Name=Material|Fmt=A16],
    @207@[Name=Kurztext|Fmt=A35],
    [Name=Formula_2|f=PARENT(@507@)|Fmt=A11],
    @214@[Name=Bauteilnummer|Fmt=A14]
    FROM [Type=5]

    SELECT
    @215@[Name=Stück|Fmt=I3],
    @222@[Name=Height],
    @225@[Name=Abmessungen|Fmt=A30],
    @201@[Name=Menge|Fmt=F8.0],
    @202@[Name=Einheit_1|Fmt=A4],
    @212@[Name=Leibungsfläche|Fmt=F8.0]
    FROM [Type=3,Filter=@VOB@;]
  </CommandText>
</Query>
```

Summary: Add a Field to an existing Report

This is what you need to do:

- Copy an rdlc-file from ETC\Reports\ ... to Office (in Windows-Explorer)
- Find out the attribute-number (@###@) you want to exchange or add
 - Either use Allplan Attribute-Tool ("**NemAll_AttribDefEditor.exe**") ...
 - Or look up in an old List...
- Open rdlc-file in any Text-Editor
- Add / change the fields
- Combine the fields to Allplan Attributes (attribute-number) in the Query-Section
- Save changes (Text-Editor)
- Open rdlc-File from Allplan (Report Viewer)
- Open Report in **Layout Editor** in order to change the headlines (in case you exchanged an existing field) or add a new column to a table
- Save ...

Adjust the Layout with Microsoft Visual Web Developer 2008

Microsoft Visual Web Developer 2008

Until now you have learned how to do simple layout changes to Report Template. But if you need to do more and really restructure the Report Template you will need a real Development Tool, such as **Microsoft Visual Web Developer Express Edition** or **Microsoft Visual Studio 2008**.

You can either start **from the scratch** with an empty file or use an existing template from etc-directory or a list you have converted as report. Don't forget to make a copy of it before you start working on it! This documentation describes how to change the layout of the report which was converted before in chapter "Convert User-Lists to Reports".

The **Microsoft Visual Web Developer 2008 Express Edition** is a free tool from Microsoft which allows you to add all kinds of controls to the Report, such as lines, textboxes, tables, matrices, images, lists and rectangles. With this tool you can individualize your Report.

Make sure you use the **2008 Version**, **not 2010!** **Microsoft Visual Web Developer 2010 Express Edition** uses the *2008-XML-Scheme* for the Reports. **Allplan 2012 Layout Editor** however can only handle the *2005-XML-Scheme* which comes with Visual Studio 2008 ... this will be changed in later versions.

You also need the **Language Pack** for Microsoft Visual Web Developer 2008 Express Edition; otherwise you cannot open the Report in the Designer Mode (*VWD_RV_Addon_deu.exe*).

Microsoft Visual Web Developer 2008 Express Edition and **Language Pack** can be downloaded from the Internet. You can also receive it from us by contacting our Technical Support Team.

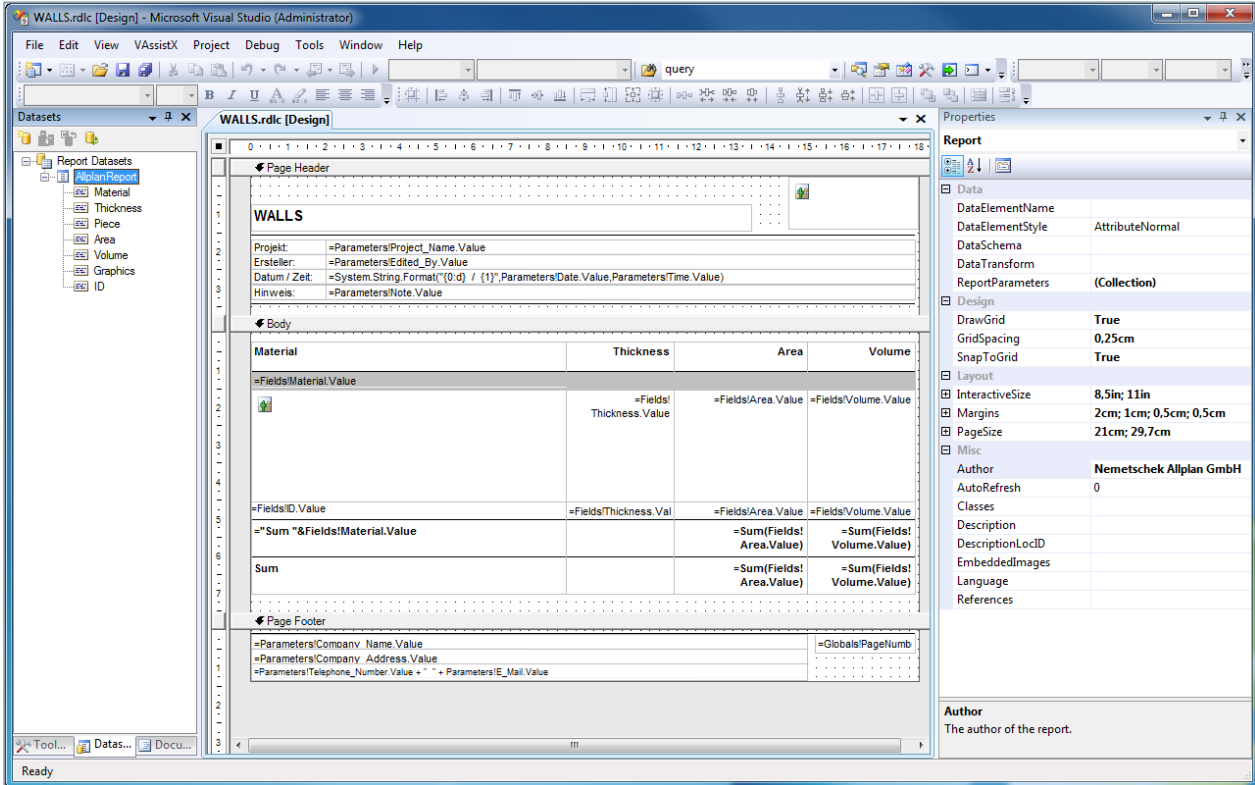
Reports in Allplan



Technical Documentation

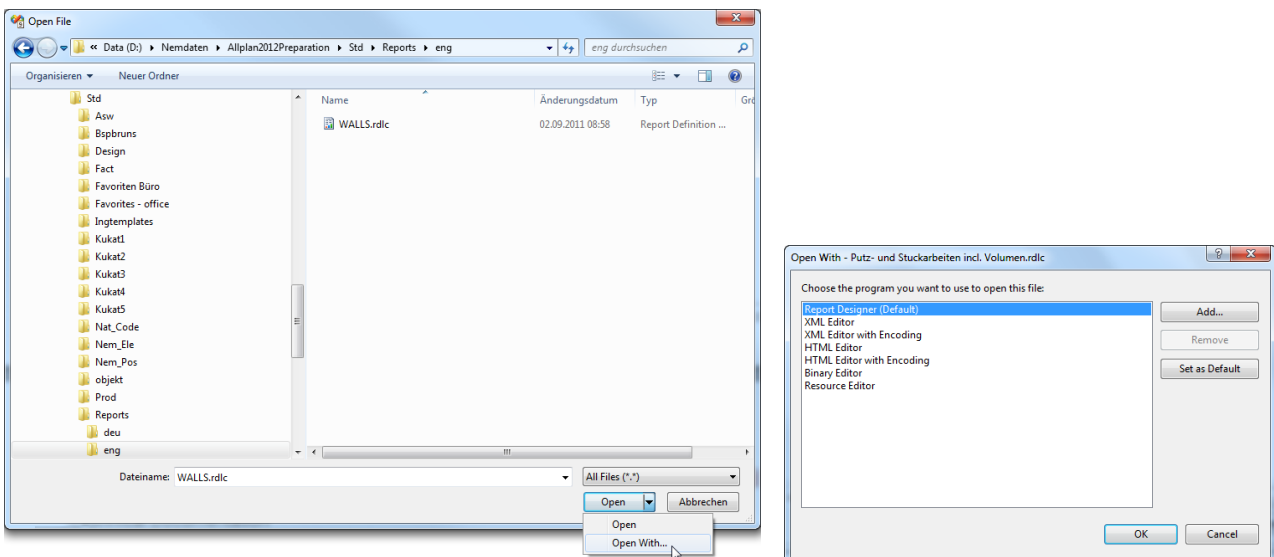
Introduction to Microsoft Visual Web Developer 2008

Microsoft Visual Web Developer 2008 Express Edition:



On the left make sure you have **Toolbox**, **Datasets** and **Document Outline** Dialog Boxes opened. On the right you should see the **Properties** ...

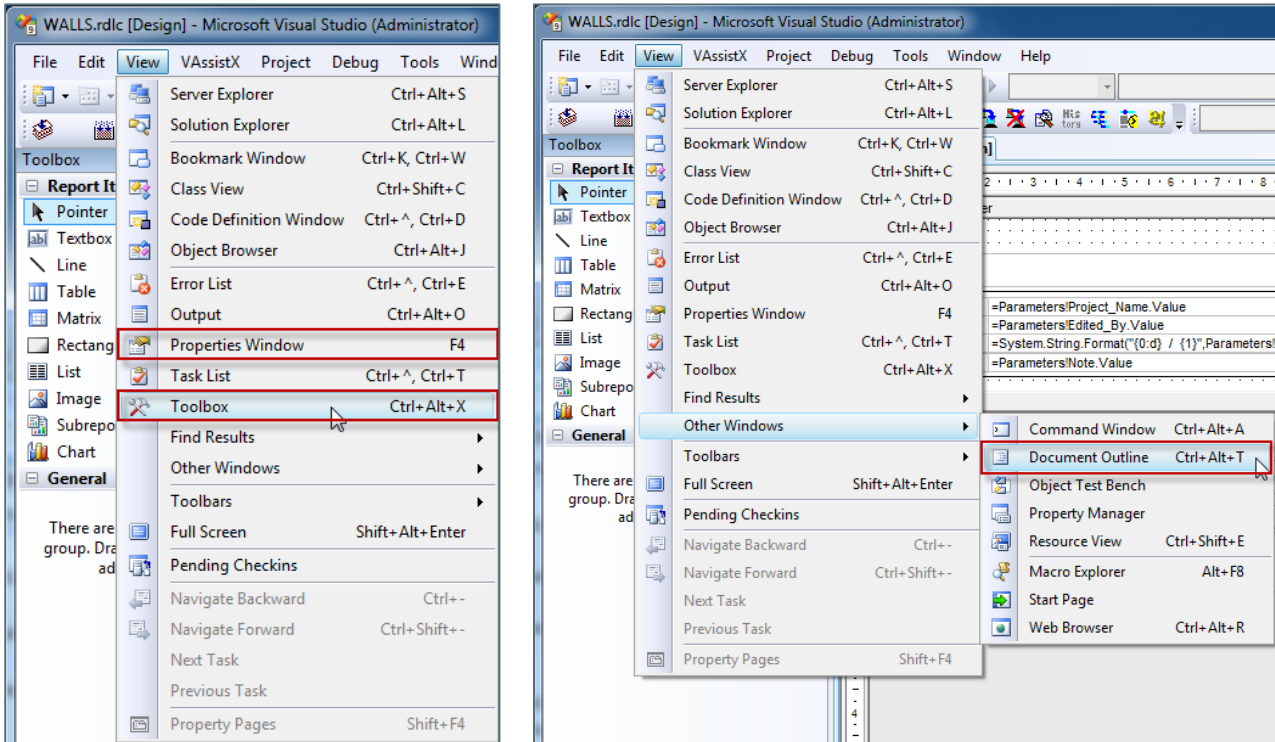
The Templates can be opened in 2 different modes: **Designer Mode** (Default) and **XML-Mode**. To open the file use “**Open with ...**” in case the **Report Designer** does not start automatically – then choose “**Report Designer**”:



Reports in Allplan

Adjust the Surface of Microsoft Visual Web Developer 2008 Express Edition

Open the needed Dialogs / Windows:

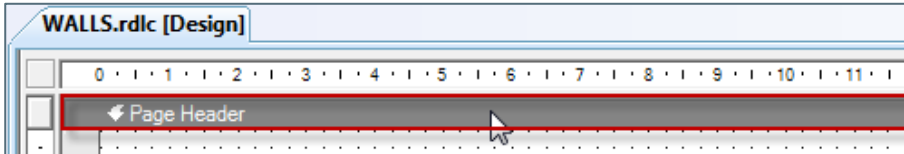


Note: All the screenshots that are provided in this chapter result from the direct conversion of the List “Walls” as shown in chapter “**Convert User Lists to Report Templates**”. You should get the exact same results if you start with the conversion of that list and open it in MS Visual Web Developer 2008 Express Edition ...

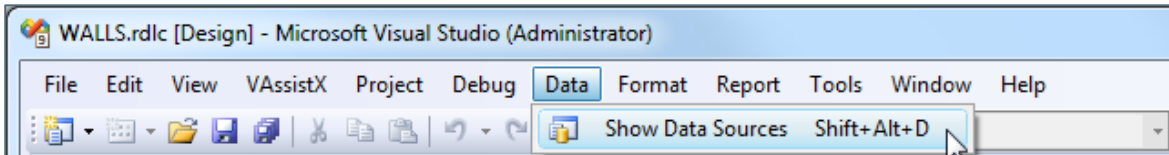
Reports in Allplan

Finally you need the **DataSet-Window**. To open it, mark any section of an opened Report Template (e.g. the Headline) and then click on Data → **Show Data Sources** ... (otherwise you don't get the menu-entry for "Data").

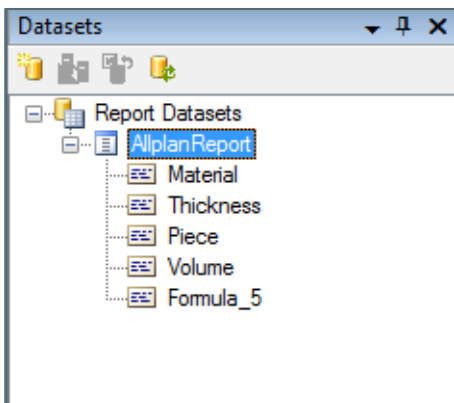
Click here:



After that you get the entry "**Data**" in the Pulldown Menu, here select "**Show Data Sources**":



The **Data Sources** (Report *DataSets*) refer to the **Fields** of the Report. The fields are connected to the Allplan Attributes as specified in the **Query**. After converting the old List to the RDLc-File all the Attributes from the List are included in the Dataset and can be used:



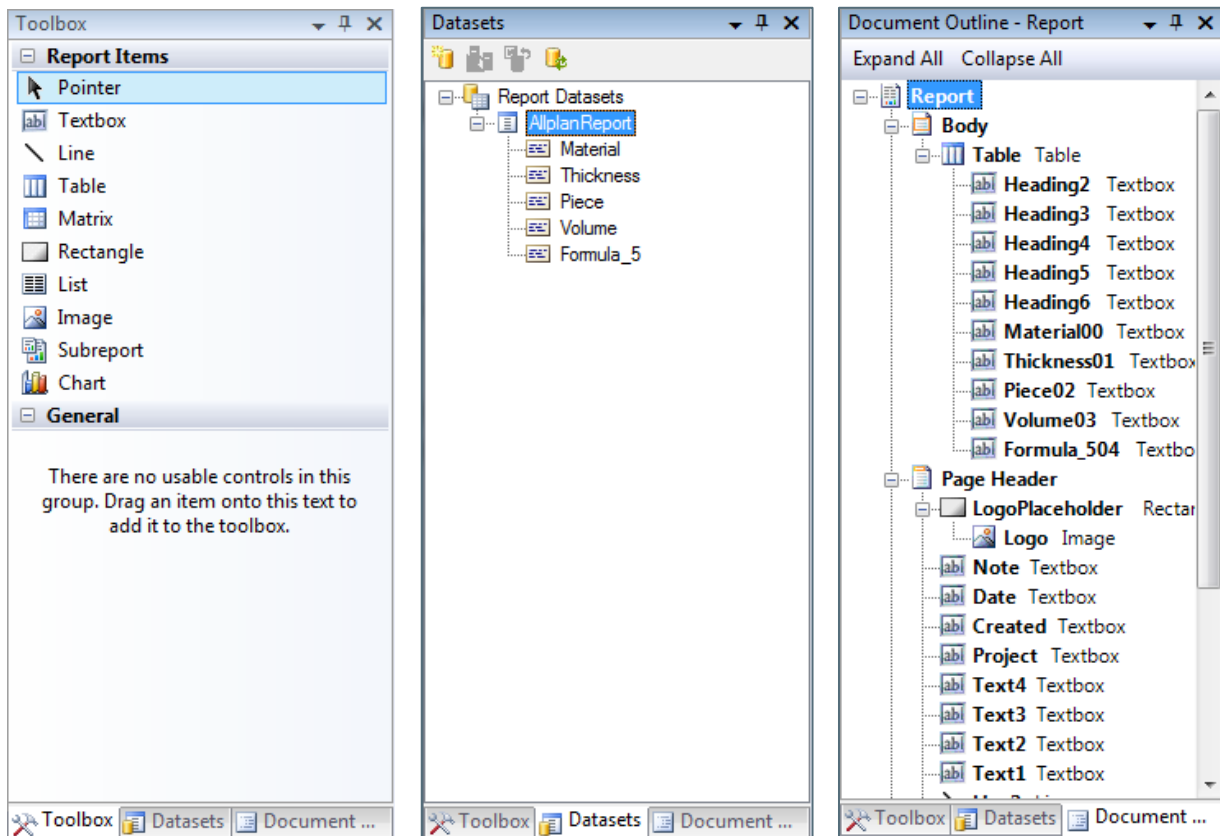
Reports in Allplan



Technical Documentation

Now arrange the Windows of MS Visual Web Developer Edition as shown in the first picture of this chapter. In the Middle Window you have the Report Template, on the right side you should arrange the Property Palette.

On the left you have the **Toolbox**, **Datasets** and the **Document Outline**:



With the **Toolbox** you can insert any control that is possible for Report Templates.

The **Datasets** show all the Fields defined in the Report Template.

The **Document Outline** Window shows the structure of the report Template (how controls contain other controls).

Arrange Layout and insert all functionality to a Report

Page Setup

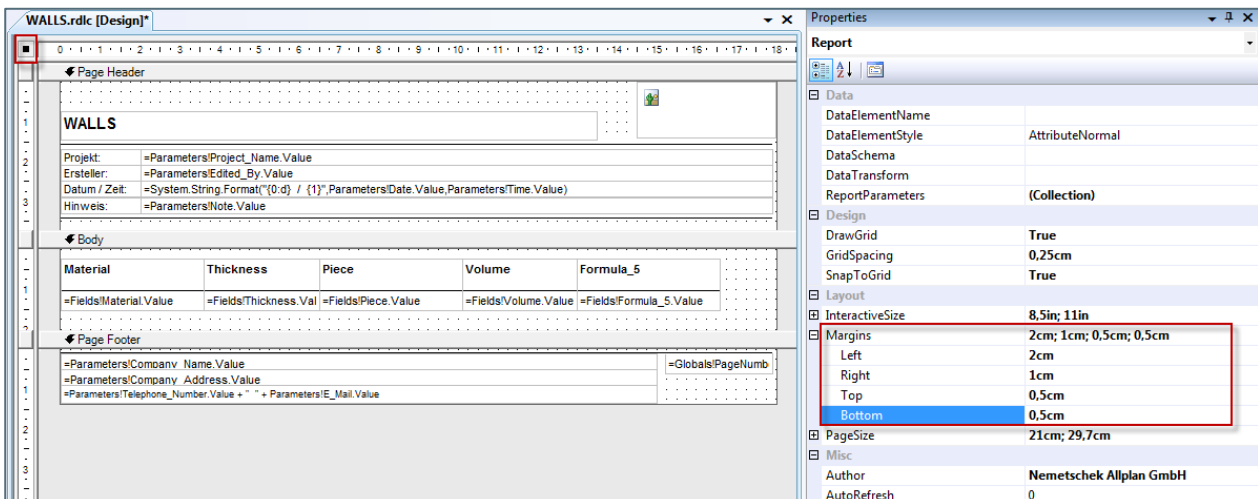
After converting a User-List (see chapter “Convert User-Lists to Report Templates”) it is a good idea to start with some basic formatting. The most basic thing to do is to set the properties for the Page Setup.

When you open the RDLC File, make sure you are in the **Designer Mode** of MS Visual Web Developer / Visual Studio 2008.

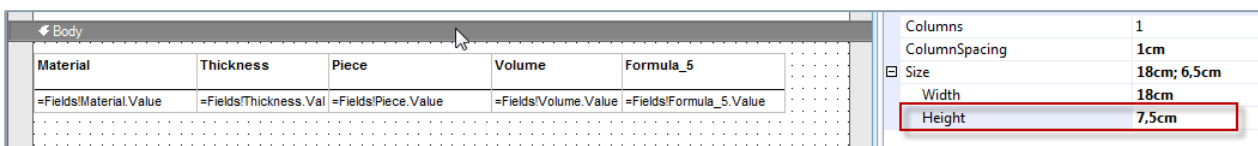
To edit the **Page Setup** click on the little rectangle on the upper left.

All Allplan Reports have the following Page Setup Parameters:

- **Margins:** left: 2cm, right: 1cm, top: 0,5cm, bottom: 0,5cm
- **Note:** These Margin Settings result to a maximum of 18cm in width for the content of the report



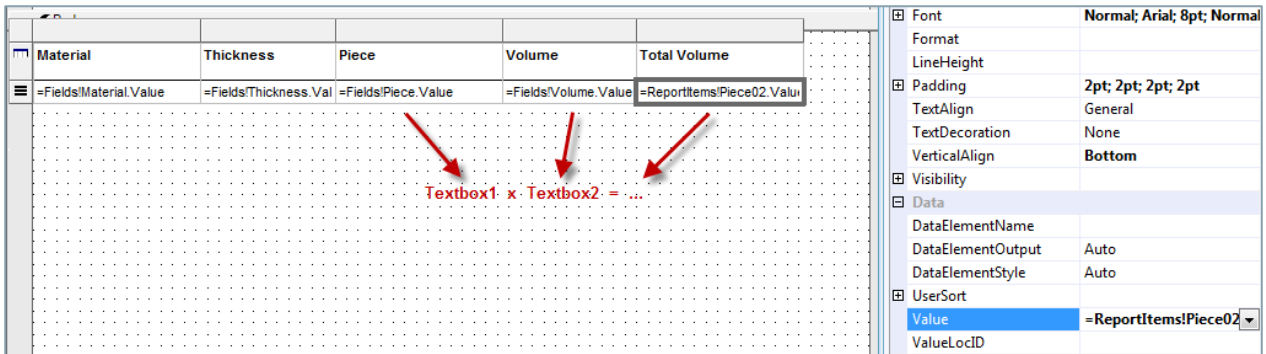
Select the Body of the Report by clicking on the gray separator. The palette now lists the properties of the Body. Then change the **Body Height** to 7,5cm to add more rows to the table:



Restore Formula for the Total Volume

The Auto-Conversion delivers the Column for the Total Volume but it does not do anything.

To restore the Formula, you can calculate the Values inside the Report. You need to calculate the Value from the Cell "Piece" and the Cell "Volume" ...



The screenshot shows a report editor interface. On the left, a table is displayed with the following columns: Material, Thickness, Piece, Volume, and Total Volume. The formulas for each column are: Material: =Fields!Material.Value, Thickness: =Fields!Thickness.Val, Piece: =Fields!Piece.Value, Volume: =Fields!Volume.Value, and Total Volume: =ReportItems!Piece02.Valu. Below the table, a red text box contains the formula: **Textbox1 x Textbox2 = ...**. On the right, a properties panel is visible, showing various settings for the report element. The 'Value' property is set to =ReportItems!Piece02.

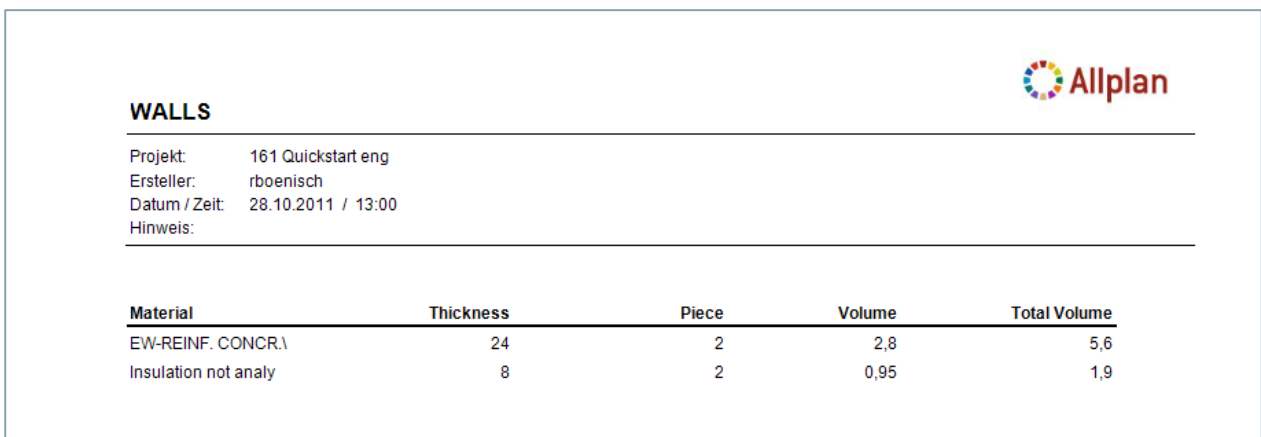
The **Syntax** to calculate values from different Report Controls is:

=ReportItems!Textbox1.Value*ReportItems!Textbox2.Value

In our case the name of the cells is "Piece02" and "Volume03", so the formula is:

=ReportItems!Piece02.Value*ReportItems!Volume03.Value

Now the calculation should work:

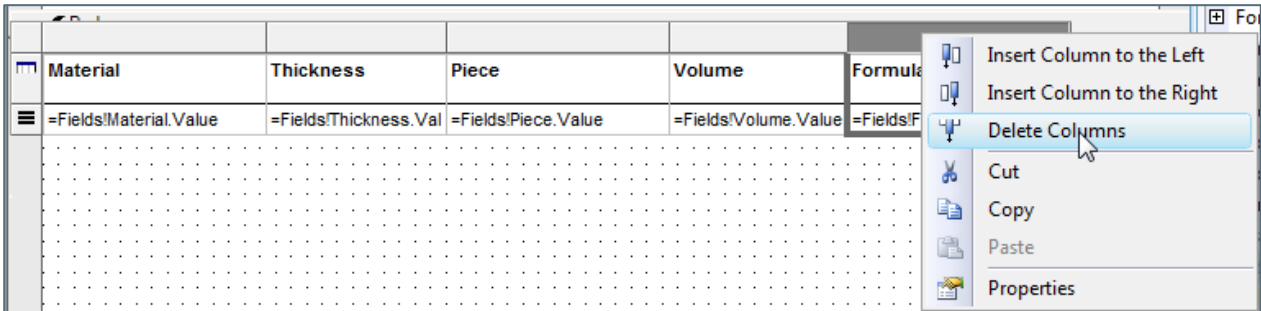


The screenshot shows a report output for "WALLS". The report includes a header with the Allplan logo and project information: Projekt: 161 Quickstart eng, Ersteller: rboenisch, Datum / Zeit: 28.10.2011 / 13:00, and Hinweis:. Below the header is a table with the following data:

Material	Thickness	Piece	Volume	Total Volume
EW-REINF. CONCR.\	24	2	2,8	5,6
Insulation not analy	8	2	0,95	1,9

Arrange Columns

But now, let's do some general changes to the Report, e.g. remove the "Total Volume" and evaluate some other Properties. So let's delete the column "Total Volume":



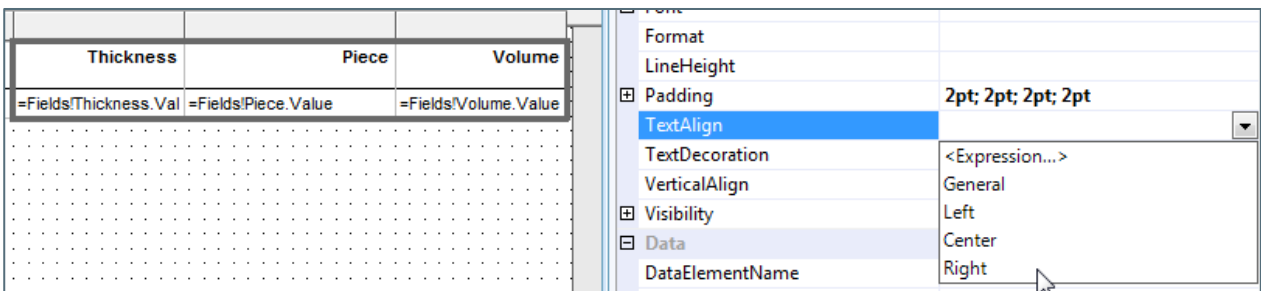
Now arrange the Table Width: Always make sure the **Table Width** is smaller than the **page width**.

Note: Since the page has a total width of 21cm, margin on the left of 2cm, margin on the right of 1cm – the maximum width for a table could be 18cm. In order to fit the vertical lines of the rightmost column of the table, make **sure the table width is 17,9cm at most!**

Resize Width of Column "Material" to 8,5cm:



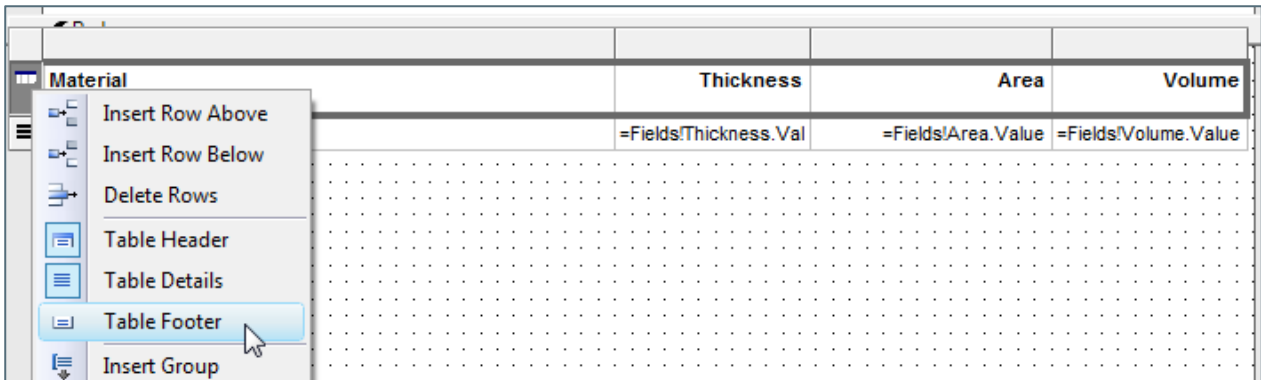
Then set the text Alignment to "Right" to all the cells that include numbers and their headers:



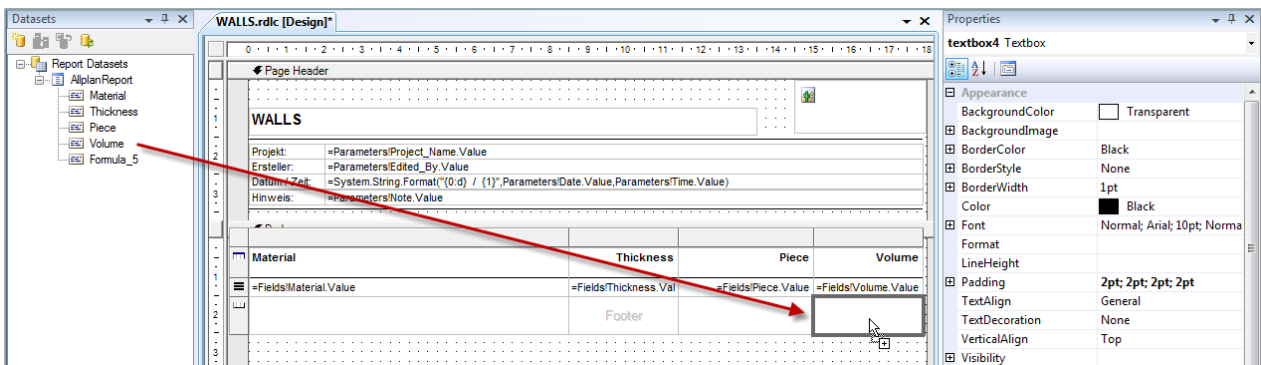
Insert Row for the Total Sum

At the Bottom of the Table you might want to add up the masses, therefore insert a **Table Footer**.

The Table Footer is a special predefined row for tables which has a special behavior when it is used inside Visual:

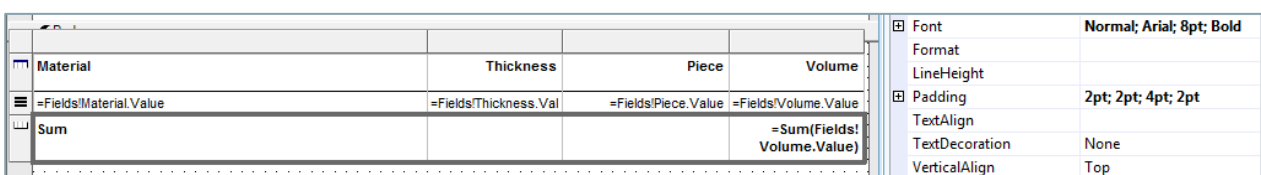


To add the Sum in the Table Footer you can simply drag the Field "Volume" from the DataSet and drop it in the Table Footer:



Finally, you need to edit the Format Parameters (edit via Palette), select the whole line:

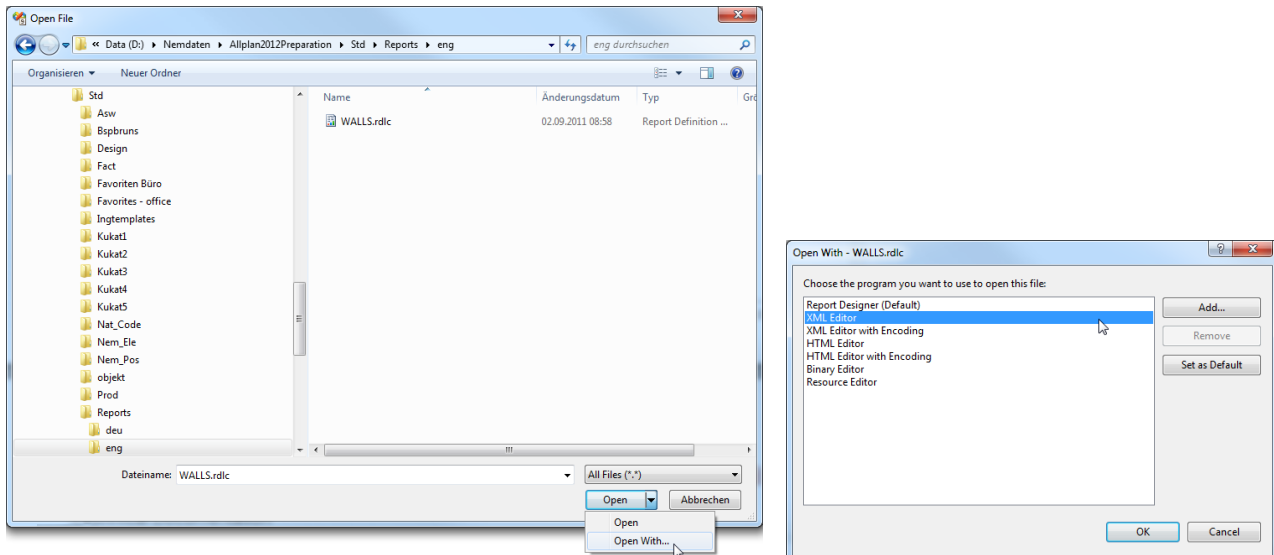
- **Height:** 1cm
- **Font-Style:** 8pt; Bold
- **Vertical Text Alignment:** Top, **Padding:** 4pt at Top
- **BorderStyle:** Solid (Top), **BorderWidth:** 0,5pt
- **TextAlign:** Right for all Cells with decimal numbers
- **Format Numbers:** 0.000 for 3 digits after the comma
- **Type "Sum"** in the left Cell ...



Clean up Query and add another Attribute

Clean Up

All changes to the **Query** can only be done in **Text-Editor Mode**! So close the Report Template now and re-open it in the **XML-Mode** of Visual Studio:



The first thing I recommend to do is to clean up all the *Whitespaces* and *TABS* that come from the auto-conversion and assign them according to the Settings in Visual Studio (Default: 2 spaces for TAB-spacing, replace TABs by Spaces). You can do that by selecting ALL (Ctrl-a) and then use the command "*Format Selection*". It is shown in the film "Reports-Documentation" at 05:01 until 05:20.

Search for Query and then delete the Field and the Query entry that refers to "**Formula_5**" (make sure there is no comma before "**FROM**"):

```
324 <Field Name="Formula_5">
325   <DataField>Formula_5</DataField>
326   <rd:TypeName>System.Double</rd:TypeName>
327 </Field>
328 </Fields>
329 <Query>
330   <DataSourceName>DummyDataSource</DataSourceName>
331   <CommandText>
332     SELECT
333       @508@[Name=Material|Dim=20],
334       @221@[Name=Thickness|Dim=1|Fmt=F8.2],
335       @215@,
336       @223@[Name=Volume|Dim=9|Fmt=F8.2],
337       [Name=Formula_5|f=COLUMN3*COLUMN4|Dim=9|Fmt=F10.2]
338     FROM [Type=0,Filter=@OBJ@.eq.1;]
339   </CommandText>
340 </Query>
```

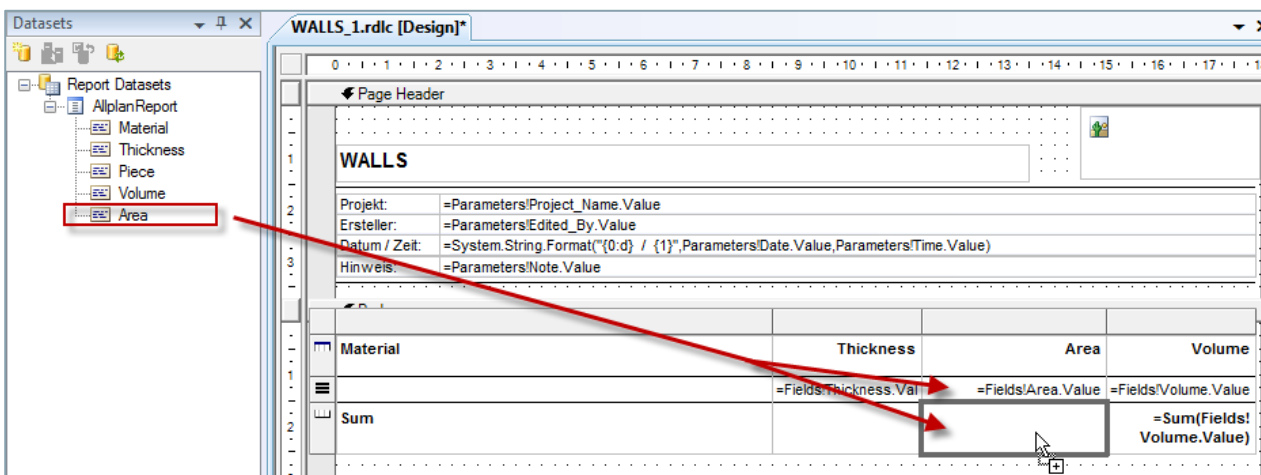

Add Attribute "Area"

Maybe we want to use one more Attribute from Allplan, e.g. the surface of the walls to calculate the Shell Area: Therefor add the field "Area" and also the internal Number of that Attribute to the Query (which is "229"):

```
320 <Field Name="Area">
321   <DataField>Area</DataField>
322   <rd:TypeName>System.Double</rd:TypeName>
323 </Field>
324 <Field Name="Volume">
325   <DataField>Volume</DataField>
326   <rd:TypeName>System.Double</rd:TypeName>
327 </Field>
328 </Fields>
329 <Query>
330   <DataSourceName>DummyDataSource</DataSourceName>
331   <CommandText>
332     SELECT
333       @508@[Name=Material|Dim=20],
334       @221@[Name=Thickness|Dim=1|Fmt=F8.2],
335       @215@,
336       @229@[Name=Area],
337       @223@[Name=Volume|Dim=9|Fmt=F8.2]
338     FROM [Type=0,Filter=@OBJ@.eq.1;]
339   </CommandText>
340 </Query>
```

After this operation you need to reload the Report Template in Visual Web Developer.

Back in the **Designer Mode** of MS Visual Web Developer, rename the Headline to "Area", assign the field "Area" via drag & drop:



Reports in Allplan



Technical Documentation

When assigning a new field to a Cell in a table the font setting is set to standard, you might need to re-adjust some properties:

- **FontSize:** 8pt
- **VerticalAlign:** Bottom

Material	Thickness	Area	Volume
	=Fields!Thickness.Val	=Fields!Area.Value	=Fields!Volume.Value
Sum		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

Font	Normal; Arial; 8pt; Normal
FontStyle	Normal
FontFamily	Arial
FontSize	8pt
FontWeight	Normal

Decimal Numbers with positions after the decimal point (double-values) can be formatted Like in Excel:

- **Assign “0.000”** for 3 decimal digits after the comma
- You can also assign #,##0.000

Material	Thickness	Area	Volume
	=Fields!Thickness.Val	=Fields!Area.Value	=Fields!Volume.Value
Sum		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

Font	
Format	0.000
LineHeight	
Padding	
TextAlign	Right
TextDecoration	None
VerticalAlign	

Now the Report should look like this:

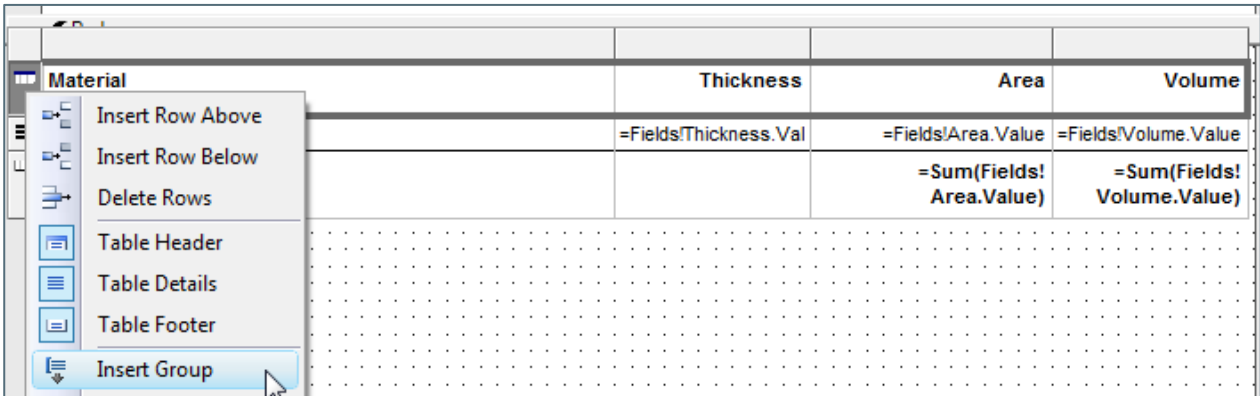
WALLS

Projekt: Quickstart e
 Ersteller: rboenisch
 Datum / Zeit: 09.09.2011 / 09:28
 Hinweis:

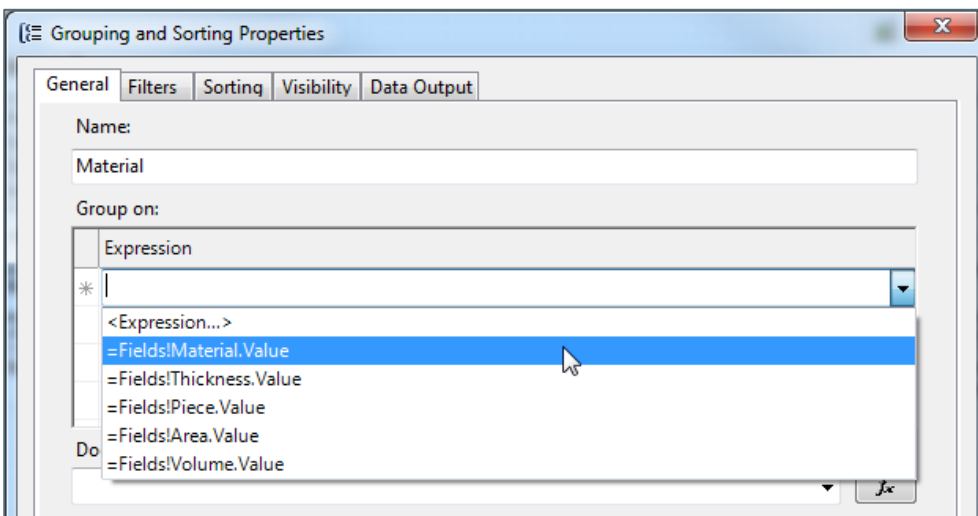
Material	Thickness	Area	Volume
EW-REINF. CONCR.\	24	7,728	1,850
EW-REINF. CONCR.\	24	11,000	2,640
EW-REINF. CONCR.\	24	20,464	4,910
EW-REINF. CONCR.\	24	36,904	8,860
Insulation not analy	8	11,800	0,940
Insulation not analy	8	22,928	1,830
Insulation not analy	8	40,706	3,260
Sum		151,530	24,290

Add Grouping

Until now the evaluated elements are listed in a very simply way. To arrange it more clearly, a grouping is very helpful, e.g. a grouping regarding the Material. To insert a grouping use the right mouse button on a row of the Table:



Name the Group for what it does (Name=Material) and add the **Expression** for the grouping:



Afterwards you have additional rows in the table:



Material	Thickness	Area	Volume
=Fields!Material.Value	=Fields!Thickness.Val	=Fields!Area.Value	=Fields!Volume.Value
Sum		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

Reports in Allplan



Technical Documentation

Now we want the Material only to appear in the Head of the Group and not for every Element, so you have to move it up by one row.

Also you should apply the **Format Parameters** for the **Head of the group**:

- **Height:** 0,5cm
- **Background-Color:** Silver
- **Font Size:** 8pt
- **VerticalAlign:** Bottom

Apply the same Format Parameters to the **Footer of the group** as for the Sum-Row:

- **Height:** 1cm
- **Vertical Text Alignment:** Top, **Padding:** 4pt at Top
- **BorderStyle:** Solid (Top), **BorderWidth:** 0,5pt

Values:

- **Left Column:** combine Text ("Sum") with the Name of the Material: ="Sum "&Fields!Material.Value
- **Other Cells:** Use Drag & Drop like before

Material	Thickness	Area	Volume
=Fields!Material.Value			
	=Fields!Thickness.Val	=Fields!Area.Value	=Fields!Volume.Value
="Sum "&Fields!Material.Value		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)
Sum		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

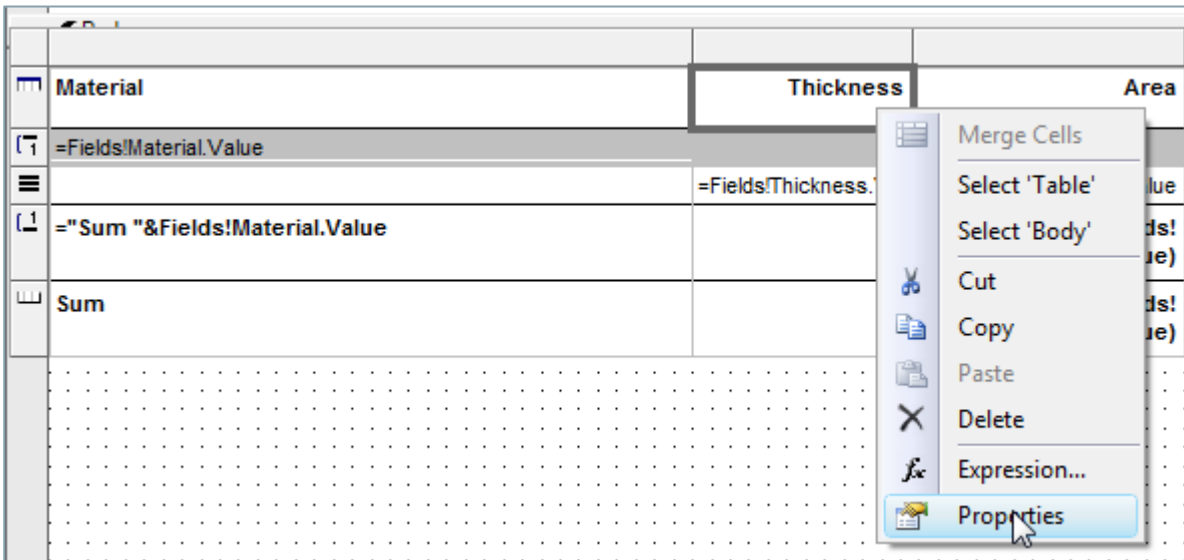
Now the Report should look like this:

Material	Thickness	Area	Volume
Concrete			
	4,000	2,543	0,100
	5,000	3,776	0,190
	6,500	2,126	0,140
	11,000	3,140	0,350
Sum Concrete		11,585	0,780
Masonry			
	4,000	22,754	0,910
	5,000	24,495	1,220
	6,500	22,254	1,450
	11,000	23,689	2,610
Sum Masonry		93,192	6,190
Sum		104,777	6,970

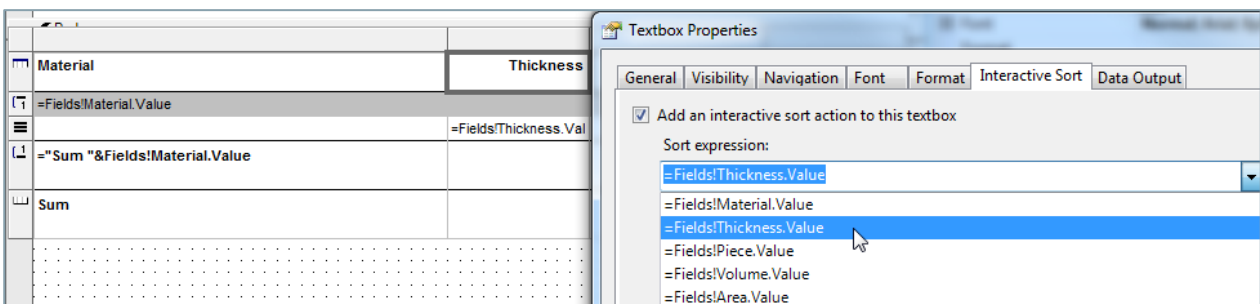
Interactive Sorting

Interactive Sorting allows the User to sort the results ascending or descending dynamically.

Insert the Interactive Sort to the Cells of the Headline of the table (apply for thickness, Area, Volume):



Select the sorting criteria:



In **Report Viewer** (no **Layout-Mode!**) you can now sort the results as you like ...

Material	Thickness	Area	Volume
Concrete			
	4,000	2,543	0,100
	5,000	3,776	0,190
	6,500	2,126	0,140

Graphical Representation

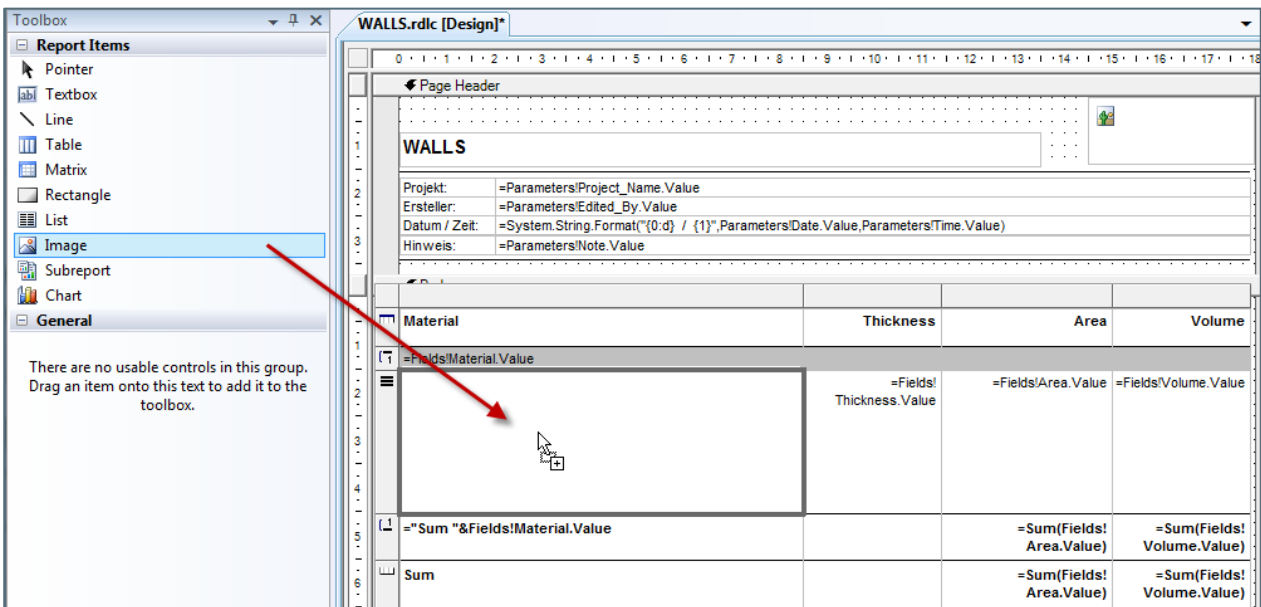
First of all we need the field for the graphical representation.

The field is added in **XML-View** of MS Visual Web Developer:

- **Type of Graphics-Field:** System.Byte
- **Attrib:** @205@[Name=Graphics|Projection=9|Width=45|Height=30|Hidden=13|Scale=200|GText=HD]

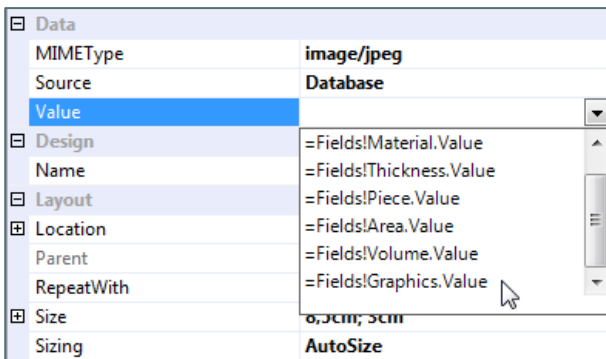
```
328 <Field Name="Graphics">
329   <DataField>Graphics</DataField>
330   <rd:TypeName>System.Byte[]</rd:TypeName>
331 </Field>
332 </Fields>
333 <Query>
334   <DataSourceName>DummyDataSource</DataSourceName>
335   <CommandText>
336     SELECT
337     @508@[Name=Material|Dim=20],
338     @205@[Name=Graphics|Projection=9|Width=45|Height=30|Hidden=13|
339     @221@[Name=Thickness|Dim=1|Fmt=F8.2],
340     @215@,
341     @229@[Name=Area],
342     @223@[Name=Volume|Dim=9|Fmt=F8.2]
343     FROM [Type=0,Filter=@OBJ@.eq.1;]
344   </CommandText>
345 </Query>
```

Back in the Designer Mode, set the height of the Row to 3cm and insert an **Image** from the Toolbox:



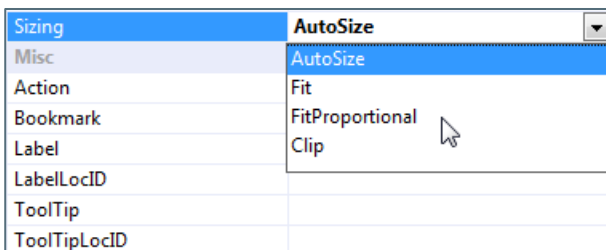
Assign Properties to the Image (in Palette!):

- **Source:** Database
- **MIMEType:** image/jpeg
- **Value:** Fields!Graphics.Value

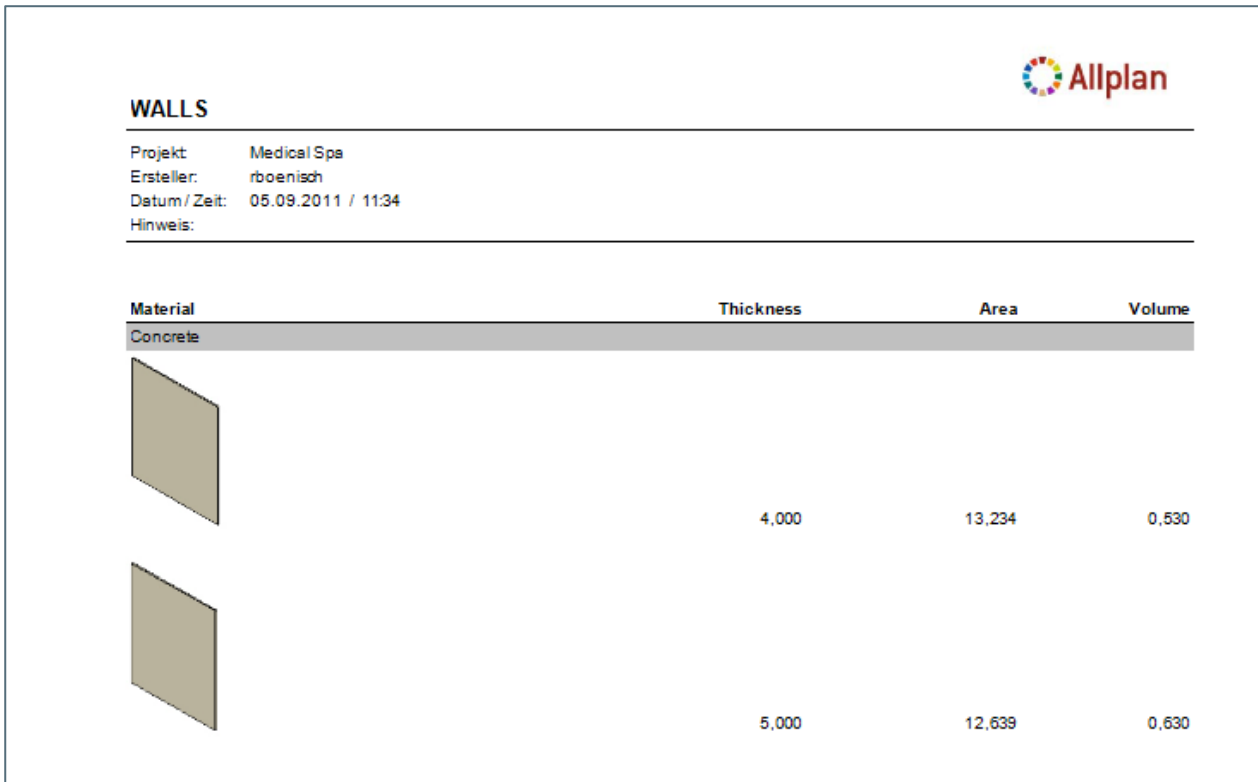


Set the Sizing of the Image to “FitProportional”:

- **AutoSize:** Cell Size is ignored, graphical representation always 100%
- **Fit:** Resize representation regarding the cell size
- **FitProportional:** Resize representation proportionally regarding the cell size
- **Clip:** graphical representation always 100% (if rep greater than cell it gets clipped)





Now the Report should look like this:



WALLS

Projekt: Medical Spa
Ersteller: rboenisch
Datum / Zeit: 05.09.2011 / 11:34
Hinweis:

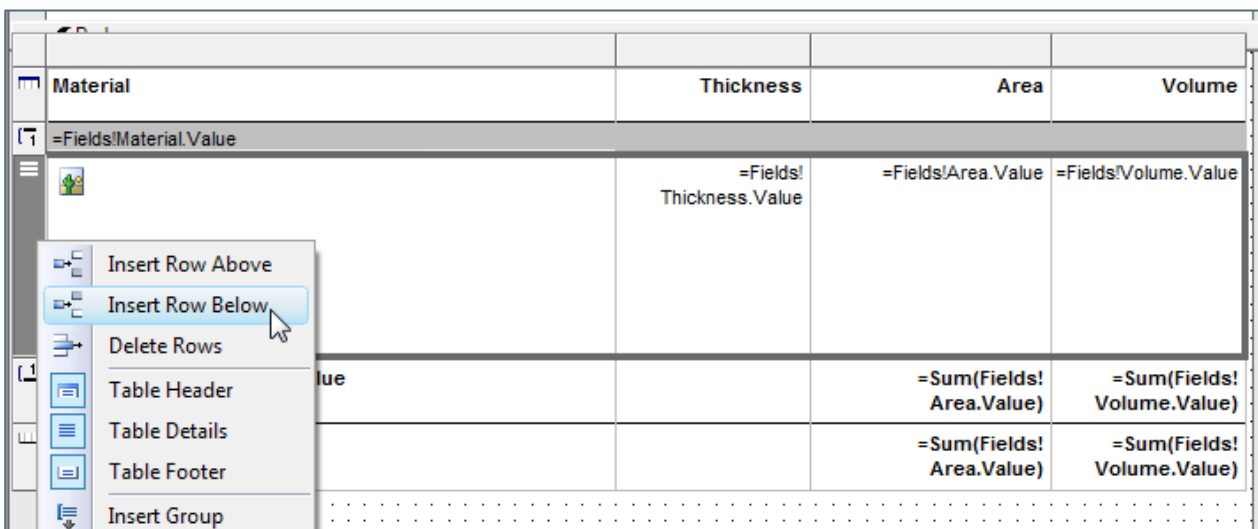
Material	Thickness	Area	Volume
Concrete			
	4,000	13,234	0,530
	5,000	12,639	0,630

Switch Visibility of the Graphical Representation

In order to control the visibility via Palette in Report Viewer you have to add another row to the table and control the visibility of the whole row with a Parameter.

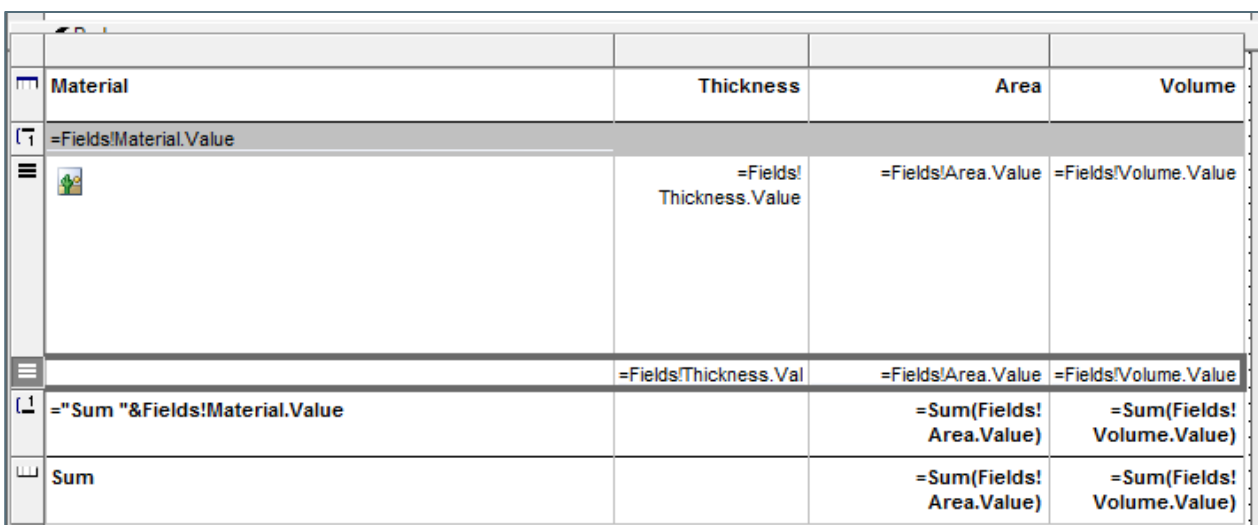
1. Insert a Row below the Row with the Graphical Representation:

- **Height:** 0,5pt
- **Font:** 8pt



Material	Thickness	Area	Volume
=Fields!Material.Value	=Fields!Thickness.Value	=Fields!Area.Value	=Fields!Volume.Value
		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)
		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

Copy content (Thickness, Area, and Volume):



Material	Thickness	Area	Volume
=Fields!Material.Value	=Fields!Thickness.Value	=Fields!Area.Value	=Fields!Volume.Value
	=Fields!Thickness.Val	=Fields!Area.Value	=Fields!Volume.Value
=Sum "&Fields!Material.Value		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)
Sum		=Sum(Fields!Area.Value)	=Sum(Fields!Volume.Value)

2. Add Parameter to the Report Template

Open Template in XML-Mode, search for "ReportParameter" and insert the following:

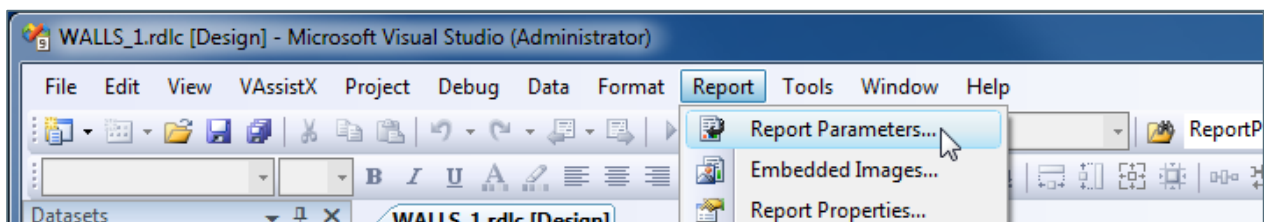
- **DataType:** Boolean
- **DefaultValue:** True
- **Prompt:** this is the prompt for the user ...

```
93 <ReportParameter Name="Display_Graphics">
94   <DataType>Boolean</DataType>
95   <DefaultValue>
96     <Values>
97       <Value>True</Value>
98     </Values>
99   </DefaultValue>
100  <AllowBlank>>true</AllowBlank>
101  <Prompt>Hier kann die Grafik ausgeblendet werden</Prompt>
102 </ReportParameter>
103 </ReportParameters>
```

To make it easier for you, you can copy this Code-Snippet from the PDF-File:

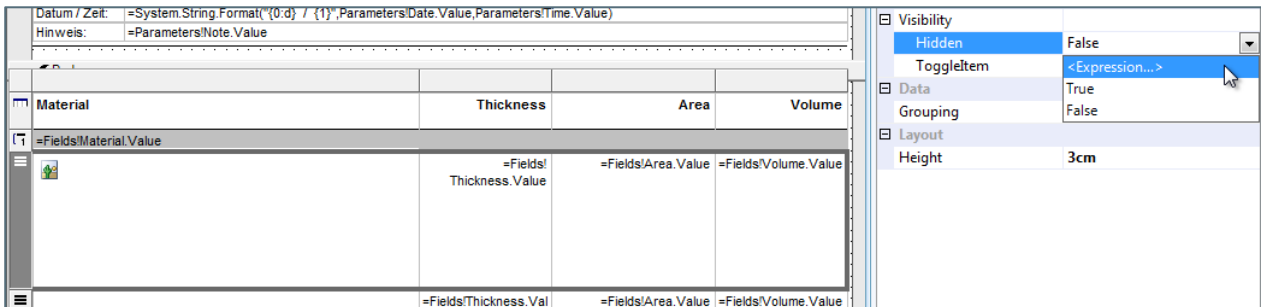
```
<ReportParameter Name="Display_Graphics">
  <DataType>Boolean</DataType>
  <DefaultValue>
    <Values>
      <Value>True</Value>
    </Values>
  </DefaultValue>
  <AllowBlank>true</AllowBlank>
  <Prompt>Hier kann die Grafik ausgeblendet werden</Prompt>
</ReportParameter>
```

Hint: Do **not** use the Report Parameters Tool in Visual Studio / Visual Web Developer! There is a bug in Visual Web Developer 2008 that deletes all the Default Value.



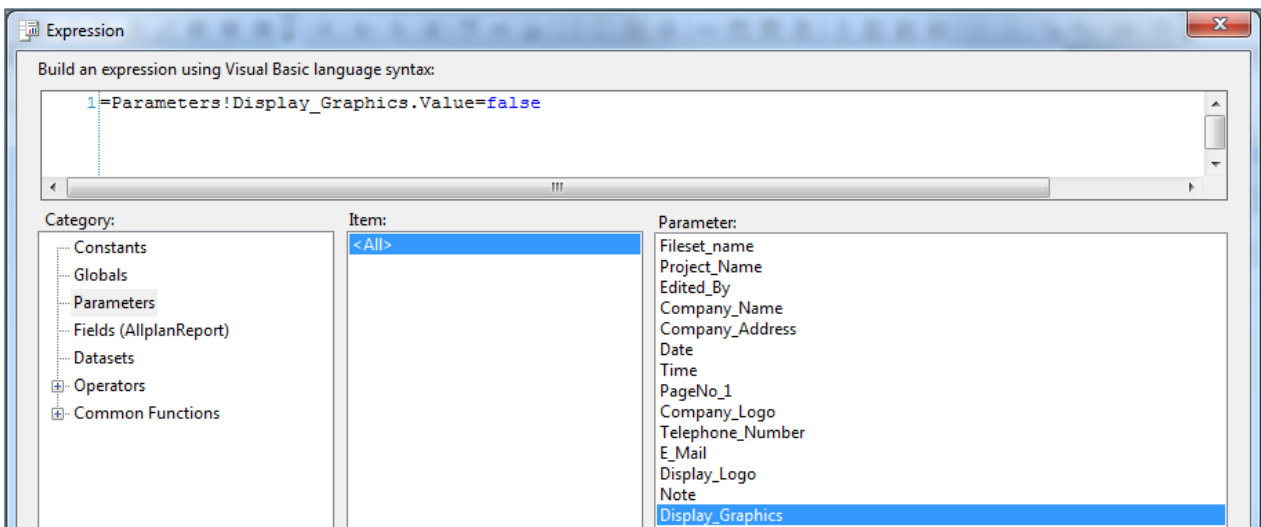
3. Assign the Parameter to the Rows

Back in Designer Mode select the Row with the picture you want to hide and select “**Expression**”:



In the **Expression Window** type:

- “=” and then double-click on the Parameter “**Display_Graphics**”
- Assign “**=false**” for the image row
- Assign “**=true**” for the new row



Reports in Allplan



Technical Documentation

In the Report Viewer you can now switch on or off the Graphical Representation – On:

WALLS

Projekt: Medical Spa
Ersteller: rboenisch
Datum / Zeit: 02.09.2011 / 15:20
Hinweis:

Material	Thickness	Area	Volume
Concrete	5,000	12,440	0,620
	11,000	12,440	1,370

Graphical Representation – Off:

WALLS

Projekt: Medical Spa
Ersteller: rboenisch
Datum / Zeit: 02.09.2011 / 15:20
Hinweis:

Material	Thickness	Area	Volume
Concrete	5,000	12,440	0,620
	11,000	12,440	1,370
	4,000	12,440	0,500
	6,500	12,440	0,810
Sum Concrete		49,760	3,300
Masonry	5,000	9,459	0,470
	11,000	9,631	1,060
	4,000	9,631	0,390
	6,500	9,631	0,630
Sum Masonry		38,352	2,550
Sum		88,113	5,850

Filter

First of all you need another Parameter ...

```
103 <ReportParameter Name="Material">
104   <DataType>String</DataType>
105   <AllowBlank>>true</AllowBlank>
106   <Prompt>Distinct (Fields!Material.Value)</Prompt>
107   <MultiValue>>true</MultiValue>
108 </ReportParameter>
```

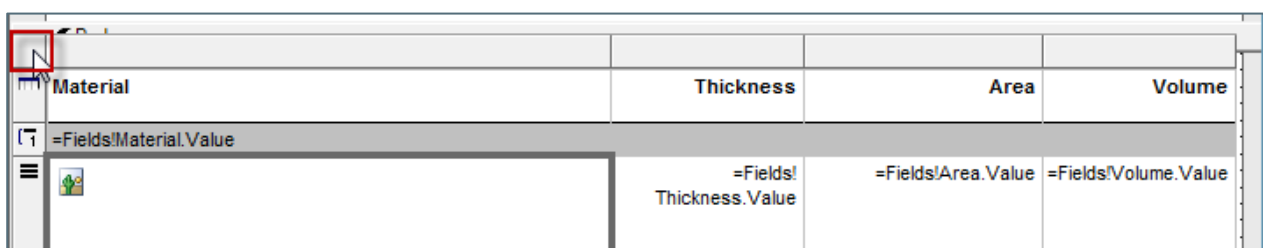
To make it easier for you can copy this Code-Snippet from the PDF-File:

```
<ReportParameter Name="Material">
  <DataType>String</DataType>
  <AllowBlank>true</AllowBlank>
  <Prompt>Distinct (Fields!Material.Value)</Prompt>
  <MultiValue>true</MultiValue>
</ReportParameter>
```

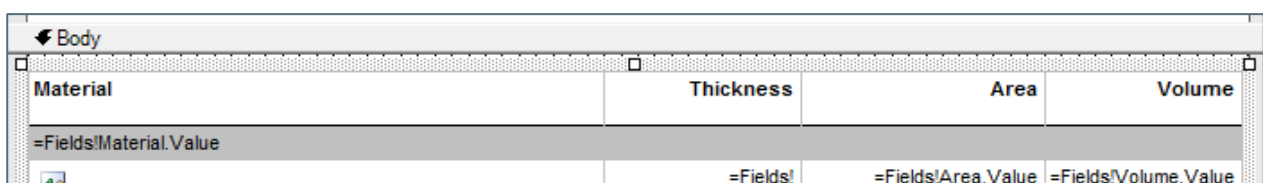
Distinct is an **SQL Statement** that delivers a list of unique values.

In our case we want to display the material from the evaluated elements inside the palette of the Report Viewer. Each material should only be listed once! Now in the Data you evaluate you could have e.g. 100 walls of concrete and 50 walls of brick... Without *Distinct* the list would consist of 150 entries, but you want only 2.

The Filter will be applied to the Table. To select the complete table click on the little rectangle at the top left:



Now the Table is selected ...

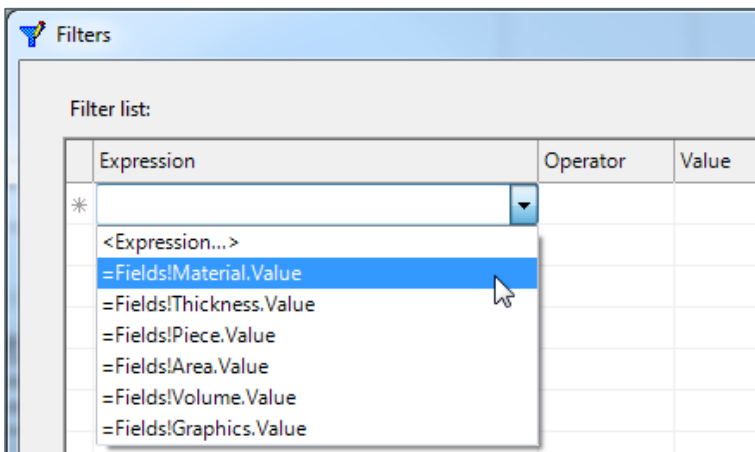


Reports in Allplan

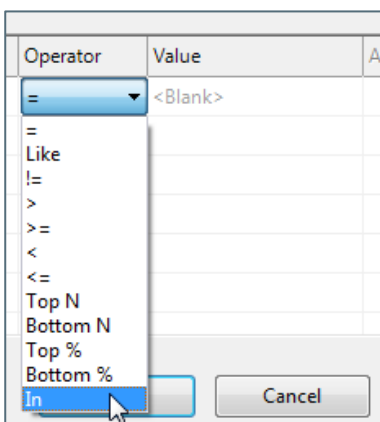
With the Table being selected, choose “**Filters**” inside the palette:

Data	
DataElementName	
DataElementOutput	Auto
DataSetName	AllplanReport
DetailDataCollectionName	
DetailDataElementName	
DetailDataElementOutput	Output
Filters	
NoRows	
Design	
Name	Table
International	
Layout	
FixedHeader	False

Expression: “=**Fields!Material.Value**”:



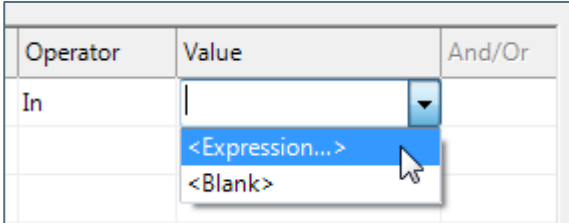
Operator: „**In**“:



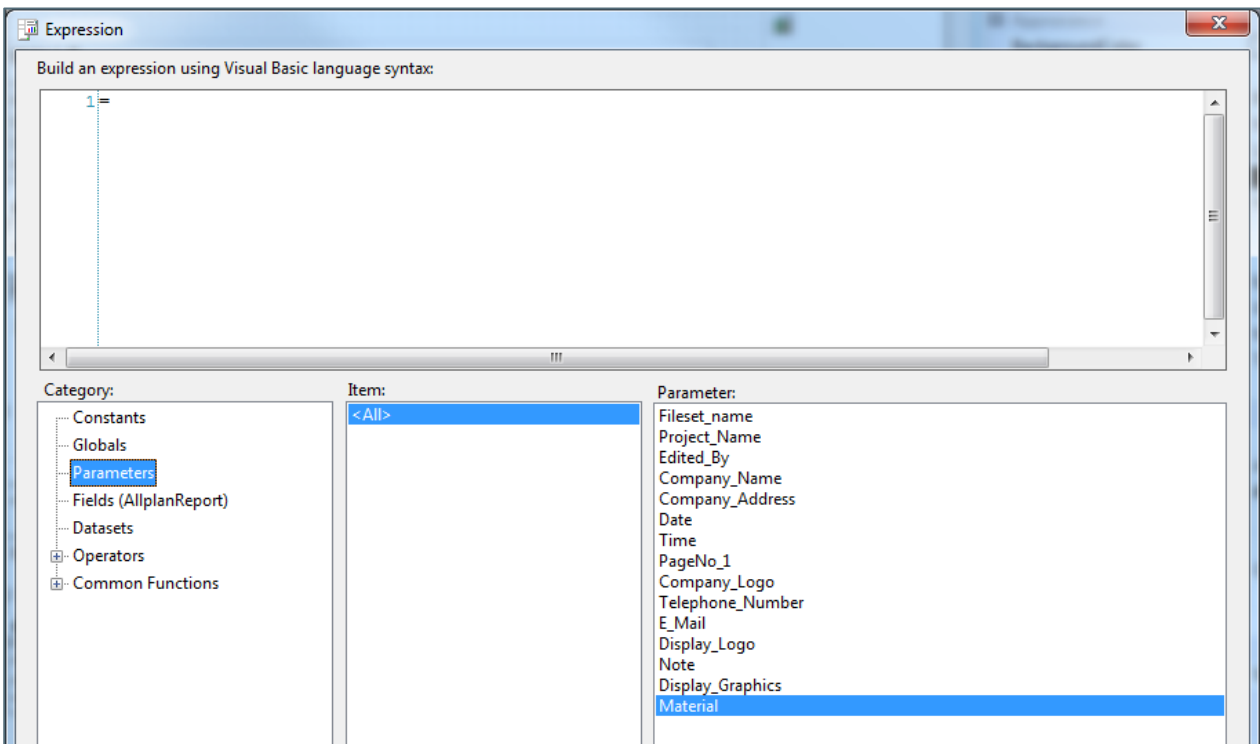
Reports in Allplan

Technical Documentation

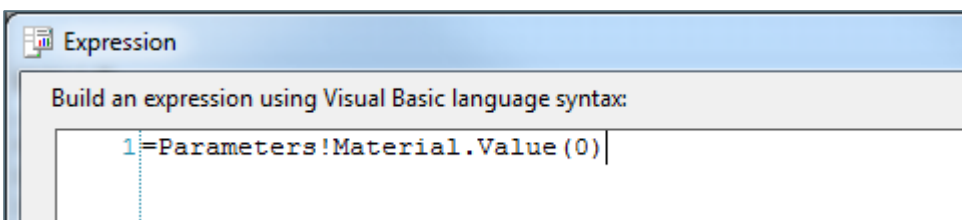
Assign the Expression for the Value: „**=Parameters!Material.Value**“ (you can either type it in directly or do it in the Expression Dialog):



Expression Dialog: Assign Material from Parameters:

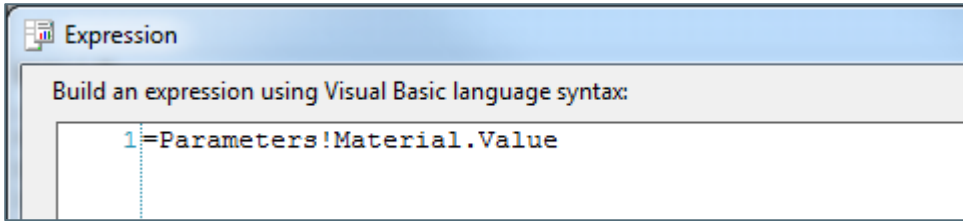


This is what MS Visual Web Developer does:

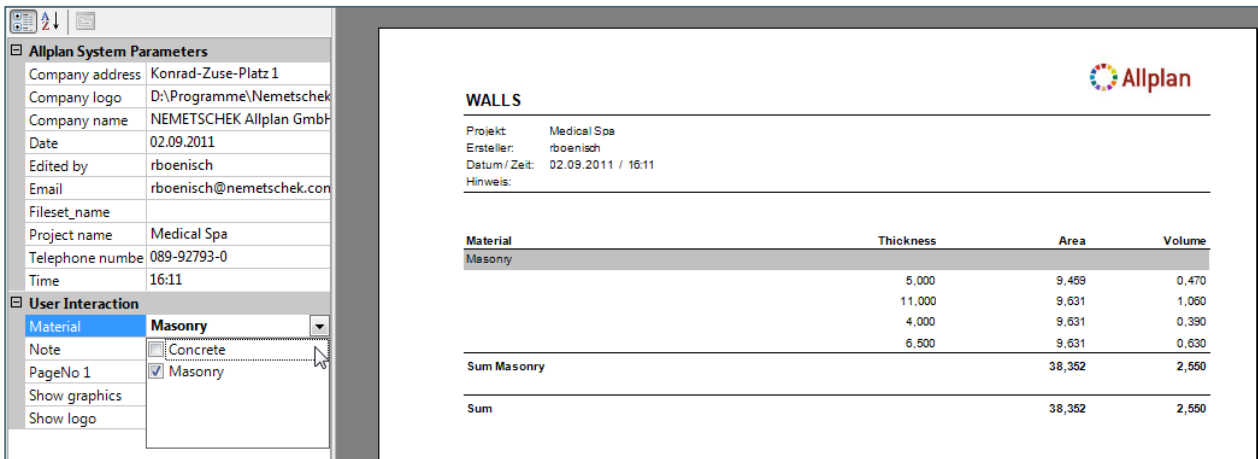


Reports in Allplan

Delete the "(0)", otherwise only the first Material is shown in the Report:



Now you can use a filter!



The screenshot shows the Allplan software interface. On the left, the "User Interaction" panel has a dropdown menu for "Material" set to "Masonry". The main window displays a report titled "WALLS" with the following data:

Projekt: Medical Spa
Ersteller: rboenisch
Datum / Zeit: 02.09.2011 / 16:11
Hinweis:

Material	Thickness	Area	Volume
Masonry	5,000	9,459	0,470
	11,000	9,631	1,060
	4,000	9,631	0,390
	6,800	9,631	0,630
Sum Masonry		38,352	2,550
Sum		38,352	2,550

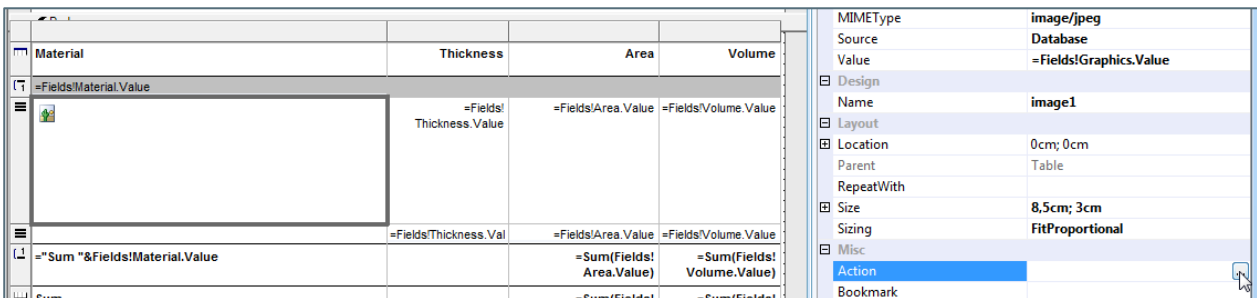
Mark Elements / ZoomTo

In order to zoom to an element in Allplan from the Report evaluation you need to have unique identifier for it. As Identifier you can use the Allplan Attribute "ID", which has to be added to the fields:

- **Type:** System.String
- **Attribute-No.:** 10

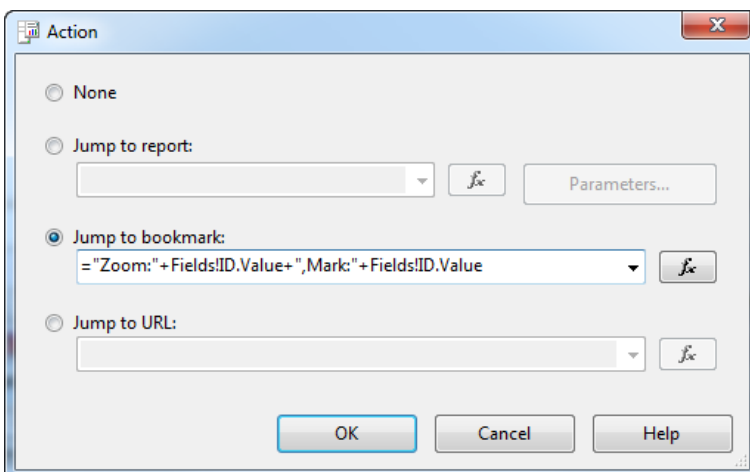
```
348 <Field Name="ID">
349 <DataField>ID</DataField>
350 <rd:TypeName>System.String</rd:TypeName>
351 </Field>
352 </Fields>
353 <Query>
354 <DataSourceName>DummyDataSource</DataSourceName>
355 <CommandText>
356 SELECT
357 @508@[Name=Material|Dim=20],
358 @10@[Name=ID],
359 @205@[Name=Graphics|Projection=9|Width=45|Height=30|Hidden=13|Scale=200|
360 @221@[Name=Thickness|Dim=1|Fmt=F8.2],
```

Mark the graphical representation:



... And add an entry for "Jump to Bookmark":

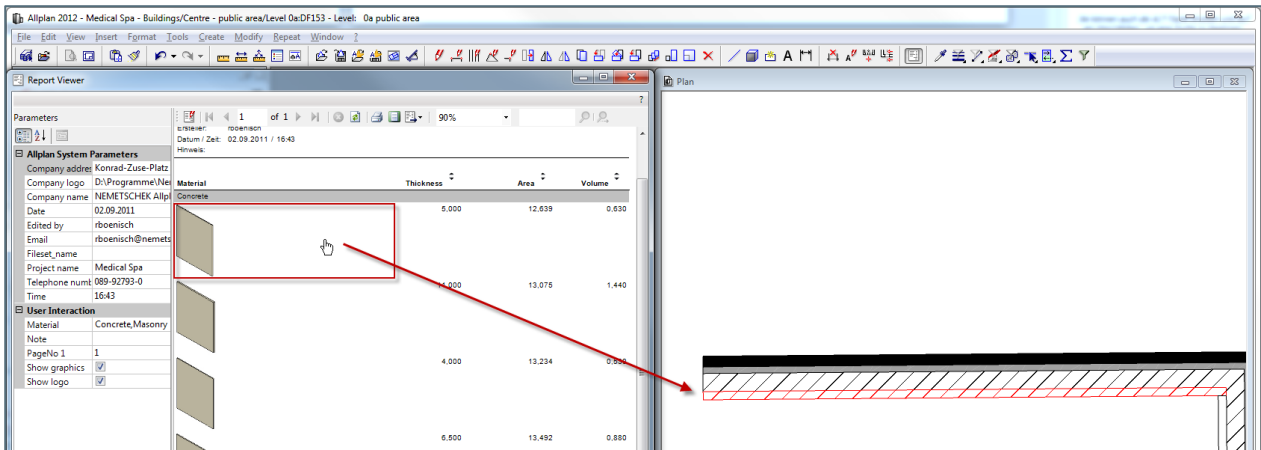
- **Action-Expression:** ="Zoom:" + Fields!ID.Value + ",Mark:" + Fields!ID.Value



Reports in Allplan

Technical Documentation

Now you can **zoom to** the evaluated Element in order to identify it in the Allplan View:



Note: In Allplan the element stays highlighted until you clear the selection (Edit → Clear Selection).

FAQs

Reports in General

- Read Values from fields: “**=Fields!Laenge.Value**“
- Read Values from Parameters: “**=Parameters!Format.Value**“
- Read Values from another Report Cell / Control: “**=ReportItems!Textbox1.Value**“

Query

The expression for the Query must follow this pattern. Field-expressions are separated by a comma:

```
SELECT {fieldexpression, fieldexpression, ... , fieldexpression} FROM [{expression, expression, ..., expression}]
```

A typical *fieldexpression* looks like this:

```
@221@[Name=Dicke| Dim=1|Fmt=l4]
```

However, the **Format Definition (Fmt=XXX)** can be left out – it was only needed in the past for the old Lists. For the Reports it is only needed for the **currency unit**.

Allowed Operations in the Query

Some Expressions / Symbols are not allowed inside of formula expressions and must be replaced:

- “=” should be replaced with “**.eq.**“
- “<” should be replaced with “**.lt.**“ or “**<**“
- “>” should be replaced with “**.gt.**“ or “**>**“
- “<=” should be replaced with “**.le.**“
- “>=” should be replaced with “**.ge.**“
- “&” should be replaced with “**.and.**“
- “/” should be replaced with “**.or.**“

Report Types

List of Report-Types (set in the FROM Section):

- **Type=0:** Standard Architecture Report (evaluates Arch Elements only)
- **Type=1:** Standard Engineering Report (evaluates Rebars and Meshes only)
- **Type=2:** Sub-Query for listing Living Space in Rooms and Story-Reports
- **Type=3:** Sub-Query for arch. Components due to their unit (Abrechnungsart)
- **Type=4:** Formwork Reports
- **Type=5:** Sub-Query in order to group elements (not needed for Reports – was used in old Lists)
- **Type=6:** Special Steel-Lists
- **Type=7:** Smart Fit Elements
- **Type=8:** Digital Terrain Models
- **Type=9:** Sub-Query for Geometry of arch. Components
- **Type=10:** Sub-Query for Attribute Information
- **Type=11:** Precast Elements
- **Type=18:** DIN 277 – Sub-Query for comprehensible volume analyses of rooms and stories (nachvollziehbare Volumenberechnung von Räumen und Geschossen nach DIN 277)
- **Type=19:** Sub-Query for comprehensible volume analysis (arch. Components)
- **Type=34:** Sub-Query for comprehensible area analysis of rooms and stories (nachvollziehbare Flächenberechnung von Räumen und Geschossen nach DIN 277)
- **Type=35:** Sub-Query for comprehensible ground area analysis of arch. Components (nachvollziehbare Grundflächenberechnung von Architekturbauteilen)
- **Type=51:** Sub-Query for comprehensible floor area analysis of arch. Components (nachvollziehbare Bodenflächenberechnung von Architekturbauteilen)
- **Type=67:** Sub-Query for comprehensible ceiling area analysis of arch. Components (nachvollziehbare Deckenflächenberechnung von Architekturbauteilen)
- **Type=83:** Sub-Query for comprehensible vertical surface area analysis (nachvollziehbare Seitenflächenberechnung)
- **Type=99:** Sub-Query for comprehensible middle area analysis of walls (nachvollziehbare Mittelflächenberechnung von Architekturbauteilen durchzuführen: Wände)
- **Type=115:** Sub-Query for comprehensible Length Calculation for room-baseboards, Length Calculation in city and landscaping planning (Längenberechnung von Leisten, Städtebau- und Landschaftsbaulinien)
- **Type=227:** Sub-Query for comprehensible Formwork Areas of Ceilings, Beams, Columns for the trade concreting works (Schalungsberechnung von Decken, Unterzügen, Stützen bei Gewerk Betonarbeiten)

Select Statement

In the Query you find the Select Statement with its fields:

```
<Query>
  <DataSourceName>DummyDataSource</DataSourceName>
  <CommandText>
    SELECT
      @508@[Name=Material|Dim=20],
      @221@[Name=Thickness|Dim=1|Fmt=F8.2],
      @229@[Name=Area],
      @205@[Name=Graphics|Projection=9|Width=45|Height=30|Hidden=13|Scale=200|GText=HD],
      @215@, @223@[Name=Volume|Dim=9|Fmt=F8.2]
    FROM [Type=0,Filter=@OBJ@.eq.1;]
  </CommandText>
</Query>
```

Each Select Statement consists of the following components:

```
SELECT
< Fields (Attributes) >
FROM [Type=???, Filter=@OBJ@.eq.???]
```

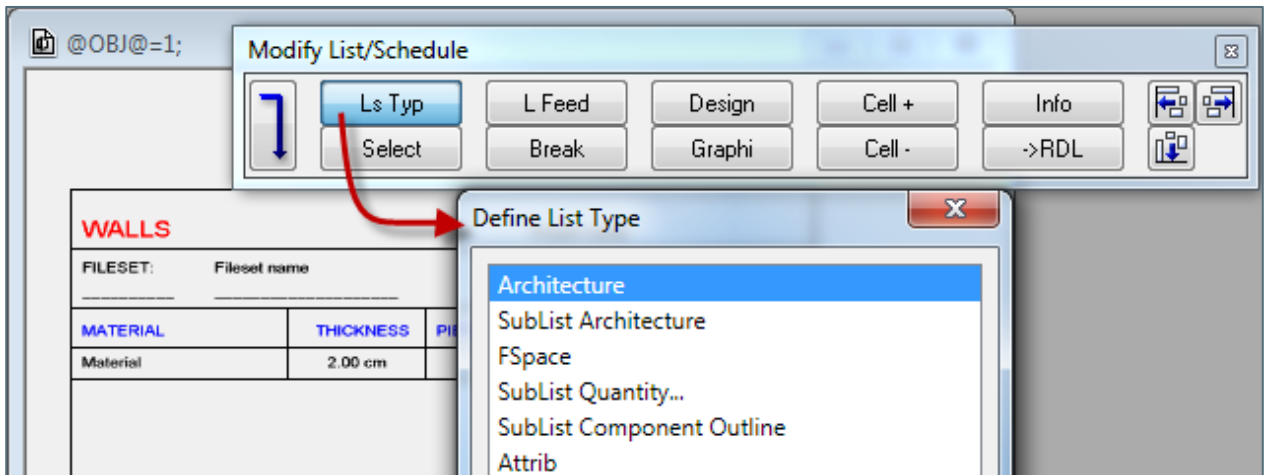
FROM ...

Options for the FROM Section:

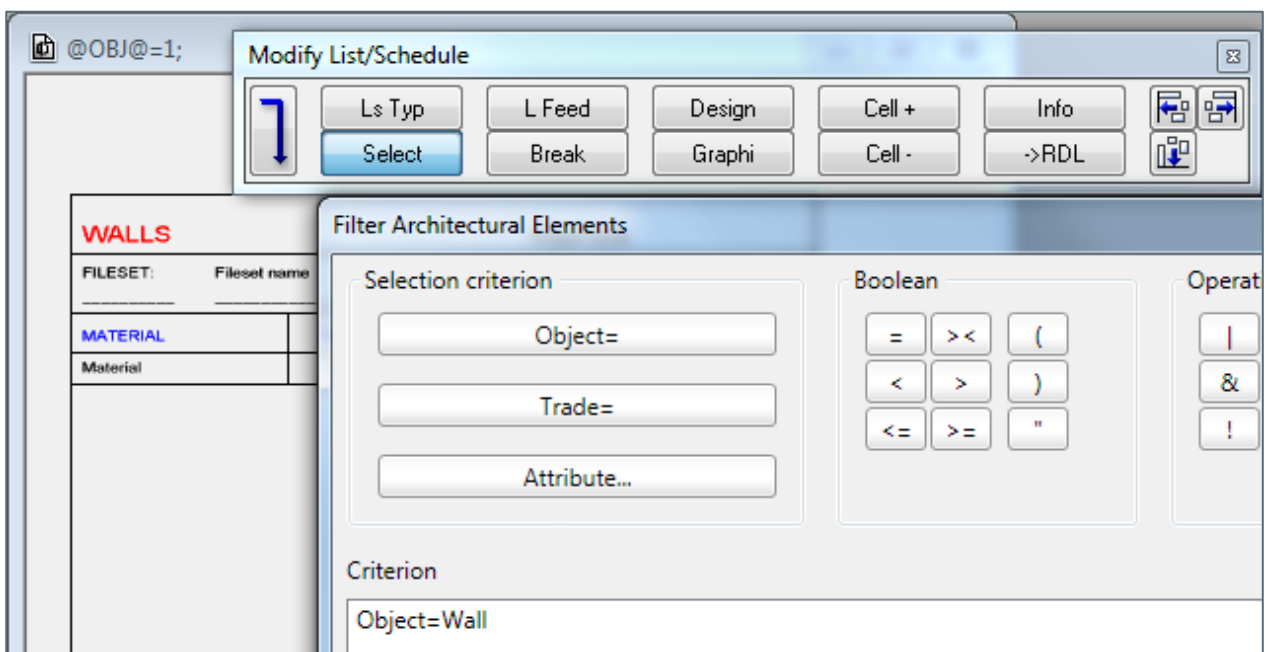
Key	Description
"filter"	SELECT Statement from old Lists
"type"	List Type
"baugruppe"	Catalogue Evaluation, e.g. IBD
"properties"	Internal use only
"removezero"	Delete zeros automatically
"FROM [Type=0,Filter=ELE(@OBJ@;1;3)]"	Evaluate different Object Types in one Report, here: Walls and Columns (Type 1 and 3)

The Select Statement compared to the old Lists

- The Type of a Report is the same as in the old lists (see list of Report-Types above):



- The Filter is the same filter as in the Select Statement of the old Lists:



- The Allplan **Object ID** is stored in the file **\$std\object.000**
- E.g. “**@OBJ@.e.q.61**” is a Query for Rooms

Valid Parameters for the Fields (inside Query)

The Select is followed by the field-expressions. Usually you want to combine a certain Attribute from Allplan to a Field from the Report. In some cases you need to do more.

So there are further options you can use. You might filter for certain content or have a Calculation beforehand and not do the calculation in the Report.

This is what you can do:

Key	Description
"Name"	Standard-Case: Assignment of an Allplan Attribute to the fields in the RDLC, e.g.: @506@[Name=Function]
"f"	Use a formula instead of a fixed attribute, e.g. search for the Text "HNF*" in a certain Allplan Attribute: [f=_IF_((@235@.eq."HNF*"))]
"CountValues"	Numbers are calculated automatically, results are added up automatically
"Col"	Value of the Column (do not use in Reports, it was used in Lists!)
"Dim"	Dimensioning: delivers values in specified units. Calculation is done before the Report is called (better Performance than converting the unit in the Report) Strings: length of the text Numbers: Auto-Convert units: unit in "cm": @Length@[Dim=1] unit in "dm": @Length@[Dim=2] unit in "m": @Length@[Dim=3] unit in "cm ² ": @Area@[Dim=4]
"Index"	Index for special Attributes
"Fmt"	Rounding Value This was used in the past to round up values, e.g. @Length@[Fmt=12.2] rounds the value to 2 spaces behind the comma. Now "Fmt" is only used for currency values.

Group by Object Type

Besides the **Type** of the Report, there is a filter for the **Object Types** in the **FROM** Section. This filter determines what elements will be listed in the Report. E.g. Object Type 1 is Walls ...

```
<Query>
  <DataSourceName>DummyDataSource</DataSourceName>
  <CommandText>
    SELECT
      @508@[Name=Material|Dim=20],
      @10@[Name=ID],
      @205@[Name=Graphics|Projection=9|Width=45|Height=30|Hidden=17|Scale=200|GText=HD],
      @221@[Name=Thickness|Dim=1|Fmt=F8.2],
      @215@,
      @229@[Name=Area],
      @223@[Name=Volume|Dim=9|Fmt=F8.2]
    FROM [Type=0,Filter=@OBJ@.eq.1;]
  </CommandText>
</Query>
```

You can find a **List of Object Types** (Allplan Object ID) in the file `$std\object.000`.

In case you want to have different Object Types in one Report use the following expression:

```
// Filter for Walls (1) and Columns (3):
FROM [Type=0,Filter=@OBJ@.eq.1.or.@OBJ@.eq.3;]

// to filter for several elements you can use the following expression.
// this filter considers Walls, Columns, Downstand Beams and Strip Foundations:
FROM [Type=0,Filter=ELE(@OBJ@;1;3;6;701)]
```

In order to group the results by the Object Types you will also have to insert the **Attribute "ObjectName"** (Type: String) which has the Attribute Number **498**:

```
<Field Name="ObjectName">
  <DataField>ObjectName</DataField>
  <rd:TypeName>System.String</rd:TypeName>
</Field>
<Query>
  <DataSourceName>DummyDataSource</DataSourceName>
  <CommandText>
    SELECT
      @222@[Name=Height],
      @508@[Name=Material|Dim=20],
      @10@[Name=ID],
      @498@[Name=ObjectName],
```

In Visual Studio you can then add the grouping like described in chapter "**Add Grouping**".

Attributes for the Graphical Representation

The **Allplan Attribute** for the graphic element (image) is “205”.

Projections

Projection: 1-9: Allplan Standard Projections. These projections refer to the global Coordinate System.



But in some cases there are exceptions to this rule, some Elements refer to their local Coordinate System which is depending on their placement direction. This applies to the following elements: Window- and Door-Macros, Elements from Frame Construction, Façades.

Special Projections

Projection 10: delivers a picture from the top with a graphical Mass Mengenansatz

Projection 11: delivers a legend

Hidden binary Flags

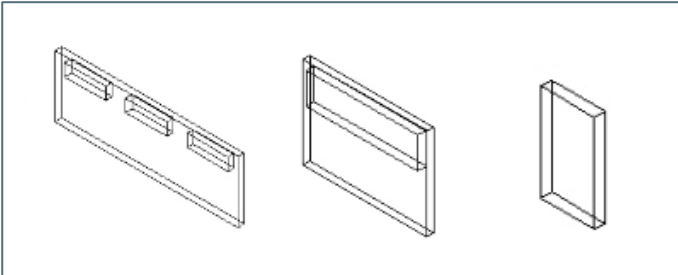
- | | |
|---|----------------|
| Flag 1: turn on hidden line algorithm | (decimal = 1) |
| Flag 2: use Bitmaps from Texture, consider Transparency | (decimal = 2) |
| Flag 3: use Fills from Color | (decimal = 4) |
| Flag 4: use Bitmaps from Texture, no Transparency (future) | (decimal = 8) |
| Flag 5: hidden edges as dotted line (in future!) | (decimal = 16) |
| Flag 6: Auto Dimensioning Line (in future!) | (decimal = 32) |
| Flag 7: activate associated Elements | (decimal = 64) |

In order to use the Hidden Flags you have to calculate what you need: e.g. if you wanted to have *Hidden Edges* and the *Bitmaps from the textures* you would have to add $1+2 = 3 \dots$

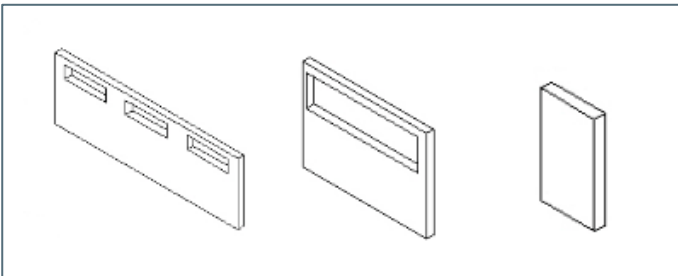
Reports in Allplan

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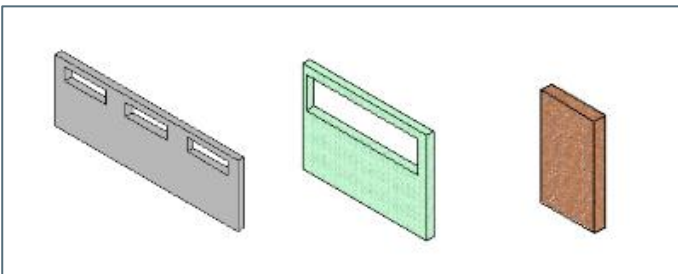
Example 1 (Hidden=0 or not set):



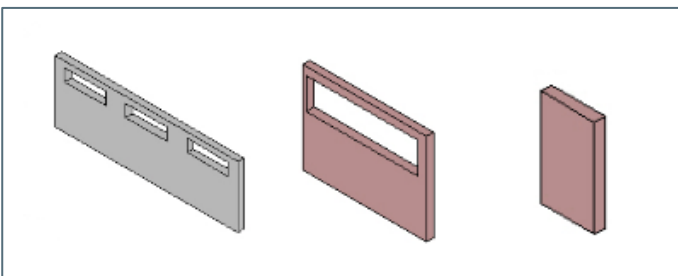
Example 2 – hidden Edges (Hidden=1):



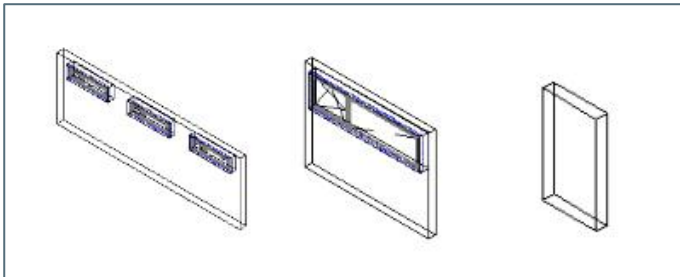
Example 3 – hidden Edges + Bitmaps from Texture (Hidden=3):



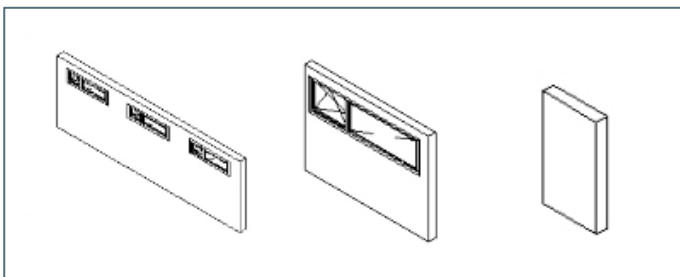
Example 4 – hidden Edges + Fills from Color (Hidden=5):



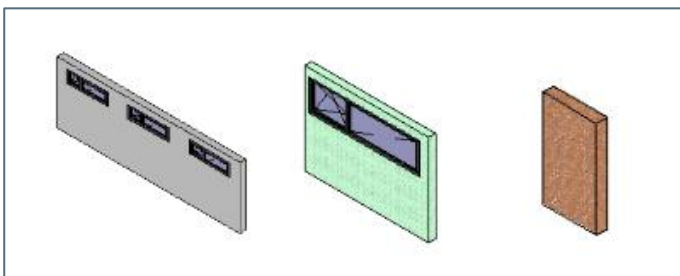
Example 5 – With associated Elements (Walls and Macro), no hidden Edges (Hidden=64):



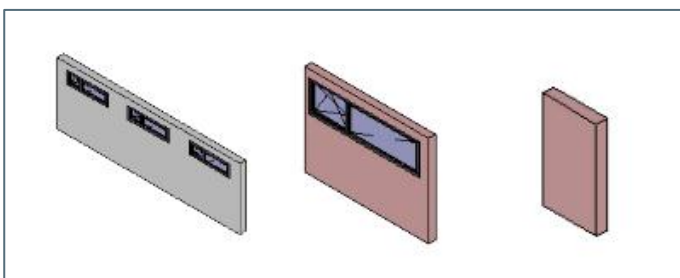
Example 6 – With associated Elements + hidden Edges (Hidden=65):



Example 7 – With associated Elements + hidden Edges + Bitmaps from Texture (Hidden=67):



Example 8 – With associated Elements + hidden Edges + Fills from Color (Hidden=69):



Other Flags for the Graphical Representation

- Image=true: Screenshot (always top Projection)
- GText
 - HD = High Resolution – does not work in combination with Auto-Size
 - CENTER = centered horizontally
 - MIDDLE = centered vertically
- Scale: preferred Display Scale Setting
- Width: Width in [mm]
- Height: Height in [mm]

In case “Scale” and “Width” are set, Width is interpreted as the maximum width. If then the picture size exceeds the maximum size because of its scale-factor the scale-factor is changed automatically.

This is an example of an image. It will never be larger than 11cm:

```
@205@[Name=Image|Image=true|Scale=100|Width=110|Height=110|GText=HD_CENTER]
```

In the following example the **width** and **height** are set to 30mm, the **projection** is set to “9”, which means you look at the element from the bottom right.. The attribute **Scale** will generate a scaled graphic element – but only if the result is smaller than the height and width you have assigned before. **GText** is the attribute for the resolution and position inside the cell – you can also use “HD_CENTER” (centered horizontally), “HD_CENTERMIDDLE” (centered horizontally and vertically):

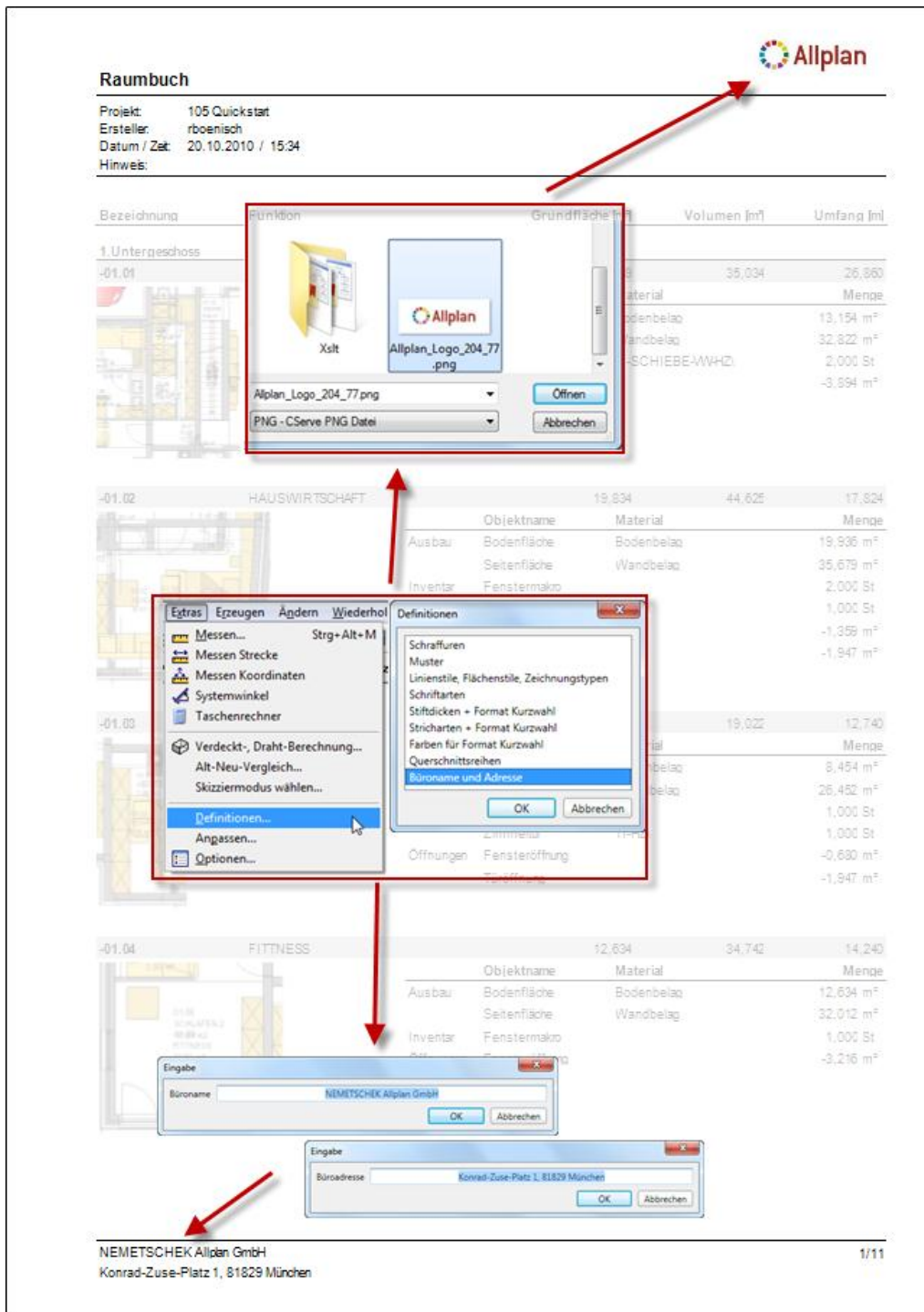
```
350 <Query>
351 <DataSourceName>DummyDataSource</DataSourceName>
352 <CommandText>
353 SELECT
354 [Name=Formula_1|f=@498@|Fmt=A60]
355 FROM
356 [Type=0,Filter=@OBJ@.eq.1709.or.@OBJ@&gt;.eq.1715.and.@OBJ@&lt;.eq.1719]
357 SELECT
358 @221@ [Name=Dicke|Fmt=I4] ,
359 @222@ [Name=Höhe|Fmt=I4] ,
360 [Name=Formula_4_1|f=_IF_(@31210@&lt;&gt;"")@31210@)_ELSE_IF_(@570@&lt;&gt;"")@570@_ELSE_@508@|Fmt=A30] ,
361 @220@ [Name=Länge|Fmt=F8.2] ,
362 @215@ [Name=Stück|Fmt=I3] ,
363 [Name=Formula_7_2|f=@220*@215@|Fmt=F8.2] ,
364 @223@ [Name=Volumen|Fmt=F10.4] ,
365 [Name=Formula_9_2|f=@223*@215@|Fmt=F10.4] ,
366 @205@ [Name=Graphics|Projection=9 | Width=30 | Height=30 | Hidden=1 | Scale=100 | GText=HD]
367 FROM [Type=5]
368 </CommandText>
369 </Query>
```

Comma to separate Field-Statements!

Office Name, Address and Logo

The default definitions are made in Tools → Defaults → Office Name and Address ...

They serve as defaults but can be overwritten within the Report Viewer.



Raumbuch

Projekt: 105 Quickstart
Ersteller: rboenisch
Datum / Zeit: 20.10.2010 / 15:34
Hinweis:

Bezeichnung	Funktion	Grundfläche [m²]	Volumen [m³]	Umfang [m]								
1. Untergeschoss												
-01.01			35,034	26,360								
				Menge								
				Bodenbelag	13,154 m²							
				Wandbelag	32,822 m²							
				SCHIEBE-WHÄ	2,000 St							
					-3,894 m²							
-01.02	HAUSWIRTSCHAFT	19,834	44,625	17,824								
				Menge								
				Ausbau	Bodenfläche	19,836 m²						
					Bodenbelag	19,936 m²						
					Seitenfläche	35,679 m²						
					Wandbelag	35,679 m²						
					Inventar	Fenstermakro	2,000 St					
							1,000 St					
							-1,359 m²					
							-1,947 m²					
-01.03								Menge				
								19,022	12,740			
									Menge			
									belag	8,454 m²		
									belag	26,452 m²		
										1,000 St		
										1,000 St		
										Öffnungen	Fensteröffnung	-0,630 m²
												-1,947 m²
-01.04	FITNESS	12,634	34,742	14,240								
									Menge			
									Ausbau	Bodenfläche	Bodenbelag	12,634 m²
										Seitenfläche	Wandbelag	32,012 m²
									Inventar	Fenstermakro	1,000 St	
												-3,216 m²

Definitionen

- Schraffuren
- Muster
- Linienstile, Flächenstile, Zeichnungstypen
- Schriftarten
- Stiftstärken + Format Kurzwahl
- Stricharten + Format Kurzwahl
- Farben für Format Kurzwahl
- Querschnittsreihen
- Büroname und Adresse**

Eingabe

Büroname: NEMETSCHKE Allplan GmbH

Eingabe

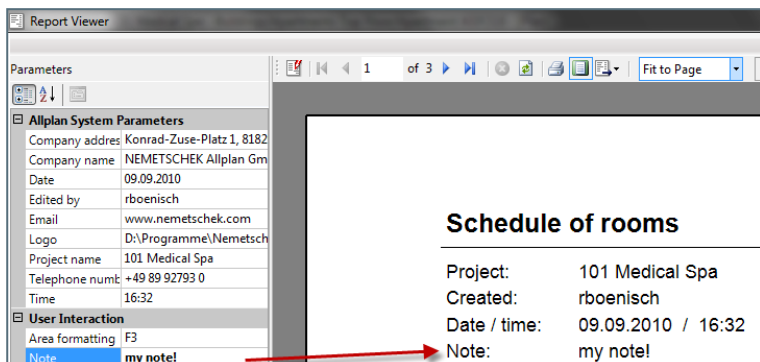
Büroadresse: Konrad-Zuse-Platz 1, 81829 München

NEMETSCHKE Allplan GmbH
Konrad-Zuse-Platz 1, 81829 München

1/11

Add Parameter “Note” to the Report

The **Note** (“*Hinweis*”) which can be edited in the palette of the Report does not exist for all the Reports. In case you convert a list to a Report it’s missing as well:



To get it you will have to add a “**ReportParameter**” in any Text-Editor, e.g. **Notepad++** (switch language to “XML” for the grouped layout):

```
<ReportParameter Name="Note">
  <DataType>String</DataType>
  <DefaultValue>
    <Values>
      <Value/>
    </Values>
  </DefaultValue>
  <AllowBlank>true</AllowBlank>
  <Prompt>Comment</Prompt>
</ReportParameter>
```

Assign the Value “**=Parameters!Note.Value**” to the textbox called “**Note**”:

```
<Textbox Name="Note">
  <Top>2.9cm</Top>
  <Width>15.9cm</Width>
  <Style>
    <FontSize>8pt</FontSize>
    <VerticalAlign>Bottom</VerticalAlign>
    <PaddingLeft>2pt</PaddingLeft>
    <PaddingRight>2pt</PaddingRight>
    <PaddingTop>1pt</PaddingTop>
    <PaddingBottom>1pt</PaddingBottom>
  </Style>
  <ZIndex>10</ZIndex>
  <CanGrow>true</CanGrow>
  <Left>2cm</Left>
  <Height>0.4cm</Height>
  <Value>=Parameters!Note.Value</Value>
</Textbox>
```