

Analyze and report data within Word and PowerPoint

For Microsoft Office, version 2010, 32-bit and version 2007

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Welcome to OfficeReports

PowerPoint and Word are among the most popular alternatives when it comes to presenting data in reports. However, transforming data into tables and charts and adding these into Word or PowerPoint based reports is just not a simple task.

A lot of software and services are registering and collecting data. Many of these have limited facilities for reporting data, but almost all provide a data export so that data can be transformed into proper tables and charts using analytical software as for example SPSS, SAS, Crystal Report and Excel. Yet there is still a job to be done before tables and charts are present within reports based on Word and PowerPoint.

Tim Macer from Meaning recently made a study where he asked researchers and consultants what improvements they wished for most in the analysis and reporting software they are using. 2 out of 3 mentioned 'Automating the production of charts and PowerPoints'!

OfficeReports analyze and present data *within* Word and PowerPoint. OfficeReports is simply an extra ribbon to Word and PowerPoint which enables you to add data and transform it into meaningful tables and charts within your documents and presentations. Say goodbye to the endless copying and pasting of tables, charts and diagrams from external data analysis software. Now you can handle it within Word and PowerPoint.

This is a dramatic change in the work process for analyzing data and building reports. OfficeReports simplifies data analysis, streamlines the production of reports and saves you for a lot of working hours. Suddenly Microsoft Office is your dynamic reporting tool!

Add Chart Add Table Senchmarking T Report Filter P Register 1 0 -401-0 0 Add Combi Chart Add Combi Table Repetitive Reports ? Help JE Significance Refresh Remove Settings Report Data Adit Variables View, Edit, Data Export Edit Selected Layout A Save As Report Template 3 Add Many Charts 1 Add Many Tables Text List Table/Chart/List T Weighting About. Chatta Tables 10th Editing Statistics Layout Filtering Update Optioni OfficeReports Select variables which Add weighting Build a report including Add and Customize OfficeReports will calculate tables, charts and text. and the layout of organize into charts, tables and lists benchmarking Add data, add report your data your reports to your filters and OfficeReports Add it to your report as reports produces new reports Excel objects! automatically!

The OfficeReports ribbon:

We hope that this manual will give you a good start with OfficeReports. Enjoy!

Best regards

The OfficeReports team



Purpose of this manual

This manual will step by step guide you through adding and presenting data as tables, charts and lists within your documents and presentations using OfficeReports.

We welcome your comments on the manual on info@officereports.com if you have suggestions for improvements or if you find any errors or inaccuracies.

The example data set

The data set covers data for 3.000 golfers evaluating the quality of Golf Clubs visited. The data set contains the following 11 pieces of information or 'variables':

- Information about the Club (Club name, Country)
- Information about the golfer (Gender & Age)
- Grading of the Course, Driving range, Reception and Shop on a 5 point scale
- Money spent (Shop, Restaurant)
- **Date** of the visit
- Comments

The data set covers different types of data as numeric data, dates, text and categories. As you will see through the manual these data can be combined in many different ways for different purposes.

We recommend that you download the Excel based example data set. You will find the data set here: www.officereports.com/help

The first row in the Excel sheet must contain titles of the variables. OfficeReports will recognize and import data from each cell in the first row as titles:

	L		Row 1:Ead	ch ce	ll is a	a Ti	tle							
	٢							V	aria	ble	S			
		$\overline{\mathbf{v}}$	· • • • •	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\mathbf{V}	\checkmark	V	V	\checkmark	\checkmark
×	38	A	8 B	Ċ	D	E	F	G	н	1	1	K	. L.	M
-]	1	1D	Club	Country	Gende	r Age	Courses	Driving ra	Reception	Shop	Spent restaurant	Spent shop	Date	Comments
	2		1 Jefferson Park Golf Course	USA	Male	22	Very bad	Very bad	Very bad	Very bad	92	47	01-02-2011	Provide the second second second
	3		2 Anne Ashey Golf Club	USA	Male	24	Augeneen	G000	Bag Many had	Many had	0	0	28-01-2011	Expensive but rather bad ser
	5		4 Cupress Point Club	LISA	Male	16	Vory mod	Weny good	Rad .	Rad	0	0	14.01.2011	Too many onus
	5		5 Cypress Point Club	USA	Male	25	Very good	Very good	Average	Bad	126	40	04-03-2011	100 many partie
- 1	7		6 Pine Valley Golf Club	USA	Male	17	Very good	Very good	Average	Average	15	9	05-03-2011	
	8		7 Ann Arbor Golf Club	USA	Male	15	Average.	Average	Very bad	Very had	33	27	26-01-2011	Bad service
	9		8 Pine Valley Golf Club	USA	Male	21	Average	Average	Very bad	Very bad	71	132	15-03-2011	Bad quality
	10		9 Ann Arbor Golf Club	USA	Male	23	Good	Good	Bad	Bad	85	48	02-02-2011	
	11	1	10 Liberty National Course	USA	Male	17	Very good	Very good	Bad	Bad	105	31	20-02-2011	

Row 2 - n: Each row is a case/record

Getting started – Four simple steps

Let us start with an appetizer and show how easy it is to transform data into charts or tables and add them to reports and presentations:

 Open a Word document or PowerPoint presentation. Open the OfficeReports toolbar by clicking the tab in the ribbon and click the `Add data´-button furthest to the left in the toolbar. Locate an Excel file containing data (each column represents a variable, row 1 represent a Title, and all the following rows represent records). When the import has finished, close the window showing the number of records and variables imported.

1	Add Vanal	les View, Edit, Exocrt	Add Chart Add Combi Chart	Add Table	Add Text List	Edit Selected	Significance	Layout	▼ Report Filter ■ Repetitive Reports ▲ Save As Report Template	Refrest	Ennove Settings	P Register ? Help About
		ala a	Charts	Tables	Lists	Editing	Statistics	Layout	Filtering	Update	Options	OfficeReports

- 2. Click `Add Table' in the OfficeReports toolbar
- 3. In the window popping up select 'Country' as the 'Primary variable'. OfficeReports responds immediately by showing the referring 'Frequency table'
- 4. Now add `Gender` as 'Background variable. Below is the resulting 'Cross table':

Primary Variable	Preview				
Country	Country				
Optional Background Variable		Fer	nale	Ma	ale
lGender	Argentina	127	12%	473	24%
	Denmark	223	21%	377	199
	England	178	17%	422	229
	Spain	246	23%	354	189
	USA	290	27%	310	169
	Total	1064	100%	1936	100

This table can now be added to the presentation or document, simply by clicking in the lower right corner. It is a similar procedure to create charts. All the output of tables/charts are Excel objects and editable in any thinkable way due to the facilities in Excel!

This is basically it! – A new paradigm for transforming data into clear information within Word and PowerPoint. However, this is merely one of the most basic functions of OfficeReports.

OfficeReports contains much more advanced capabilities. Examples include; weighting data, the creation and use of templates, and mass-production of individually adapted reports. In this manual we will go in-depth to explain how to use the program and all its functions.

OfficeReports makes Word and PowerPoint efficient, dynamic and intuitive reporting tools.

Data in OfficeReports

OfficeReports understand and analyzes **raw data** organized in formats where each observation, respondent or case is expressed individually and systematically. In the Excel data example above, each **row** represent the answers from one respondent in the survey, called **case** or **record**. Similarly, each **column** contains the answers to specific questions in the survey, called **variables**.

In this section we will briefly explain types of variables in OfficeReports and how they are defined.

- Categorical data in the form of categories. Example: Gender: Male/Female
- Numerical data in the form of numbers. Example: Age: 28
- Text data in the form of text. Example: comments

Add Table

Add Combi Table

Add Many Charts In Add Many Tables Text List Table/Chart/List

444

• Date – Example: June 21st 2011

Add Chart

Add Combi Chart

Add Data

For a more extensive explanation regarding the variables and their functions in OfficeReports we refer to the section <u>Variables</u> in this manual.

It is possible to add data to any Word document or PowerPoint presentation. The two basic ways in which data is added is either by clicking the `Add Data´- button furthest to the left in the ribbon, or by using a program that is directly integrated with OfficeReports. In other words:

Edit Selected

Senchmarking

-Significance

X Weighting

Layout

T Report Filter

Repetitive Report

-Save As Report Template

 OfficeReports import data from the most common file formats used for exporting and exchanging survey data: SPSS-files (sav-format), Triple-S files, Excel files(.xls or .xlsx) and OfficeReports data files (.mdb):

SPSS (*.sav) 👻
SPSS (*.sav)
'Extended' Excel (*.xls;*.xlsx)
Excel (*.xls;*.xlsx)
Triple-S (*.xml;*.sss)
OfficeReports Database(*.mdb)

0

Refrests Report 0

Data

 Some tools and services even have an direct e integration with OfficeReport. It could be a survey tool, CRM, ERP or similar tool which collect/register data. Read more about integrating OfficeReports with a software or service here: <u>Let your software report data</u> <u>directly in Word and PowerPoint</u>

P Register

? Help

Abeut

Importing data from Excel

When OfficeReports imports an Excel data sheet, it is important that the data is structured and formatted correctly. This is important for OfficeReports ability to identify variables and cases correctly. Here are some general guidelines that must be fulfilled in the data sheet.

- Rows should represent the responses from each case, and columns should contain the data in each variable.
- The top row must contain the names of each variable. It is important that all columns containing a variable are given a name.
- If you wish to import a date-variable, the dates need to be formatted as dates in the Excelfile.
- The first thing to do before importing the data is to choose the type of the variables. OfficeReports will detect the data set and suggest a variable type, but you can change the type if needed. If the variable is labeled wrongly, simply click the label and choose the right one as show in the screenshot to the right. Remember that a variable with categories that are numbers, such as a grading scale from 1-5, is not a numerical variable but needs to be categorized as a categorical variable in order to make the



Club	categories
Country	categories
Gender (2)	categories
🔽 Age	numeric
Courses	categories
Driving range	categories
Reception	categories
🔽 Shop	categories
Money spent in restaurant	numeric
Money spent in shop	numeric 👻
✓ Date	date

analysis accurate.

2. The second thing to do in this window is to select which of the variables to import. This is done by checking or unchecking the box to the left of the variable name. If any box is left unchecked, that variable will not be imported, hence it cannot be used it in the analysis. Then click 'Close', and the data will be imported.

3. When importing data from Excel – categories in categorical

variables are default organized in an ascending alphabetical order. If you need data in another order you can organize this in OfficeReports after the data import: <u>Reordering</u> <u>categories</u>

Importing Excel data – Expanded format

Some survey systems as Survey Monkey provides two different Excel export formats. The expanded version contains more information about the data structure which means that you have less work arranging data and variables when importing data.

OfficeReports provides you with a data import which exactly matches the data structure in Survey Monkey expanded Excel format. This option exports each answer choice into a different column per question. Therefore, each row of a matrix/rating or multiple answers allowed questions will have a column designated for that response. You can read more about this format on <u>help.surveymonkey.com</u>

Importing data from SPSS (.sav files)

Almost any professional survey tool has a data export to SPSS in terms of a .sav file. Depending how well and detailed the survey tool makes the export the file will besides data contain information about variable type, text and labels as well as text for all categories in the data set. If the survey software does not export all these texts automatically you can add it manually in OfficeReports after the import.

Importing data from Triple-S

Triple-S is a standard format which is born in the market research industry. Many providers of market research software or services provide data in this format, which is targeted survey data. You can find an updated list of survey tools exporting data into the Triple-S format here: <u>Products</u> <u>which has an Triple-S export</u>

Triple-S data is organized in two files. The dictionary information is stored in a file with the extension .xml and the data are stored in a separate file with extension .dat. The Triple-S format includes a definition

Importing data from an OfficeReports data file

From OfficeReports – whether based on Word or PowerPoint – you can export an OfficeReports data file. The format is with the extension .mdb and you can import this data file into any Word or PowerPoint file.

Multiple datasets in one report

It is possible to work with multiple datasets in one report. It can be data from different sources or periods. Importing additional data can be done in two ways:

- 1. Importing additional cases
- 2. Updating existing cases or "merging"

We will now explain each of these functions.

Importing Additional Cases

- With OfficeReports it is possible to add cases to any existing report. To do this, click the `Add data´-button in the top left corner. Locate the file with the new data and import it.
- After doing this the window shown to the right will appear. All the variables that already exist in the report will be in green, any new variables in the data will be in black. This is seen in the screenshot where a new variable labeled `New' is in black. Also, new categories to categorical variables will be added.
- If the new data file contain known variables containing new categories – new categories are added automatically.

Jone	Merge Set	tings								
~	id				nume	eric				
2	Club				cate	gories				
2	Country				cate	gories				
2	Gender				cate	gories				
2	Age				nume	eric				
•	Courses				cate	gories				
2	Driving ran	ge			categories					
2	Reception	7847 			cate	gories				
2	Shop				categories					
2	Money spe	nume	neric							
	Money spent in restaurant numeric									
2	Money spi	Variables			Timite					
ব	Money spi Date	Variables								
ব ব ব	Money spi Date Comments	Variables 	All Variables		-	Organise				
ব ব ব ব	Money spi Date Comments New	Variables	All Variables		_	Organise 6 000				
বেব	Money spr Date Comments New		All Variables	:49:52		Organise 6 000 3 000				
বেব	Money spr Date Comments New	Variables	All Variables ports 19-07-2011 09 19-07-2011 09	:49:52 :53:47	•	Organise 6 000 3 000 3 000				
<u> </u>	Money spi Date Comments New		All Variables	: 49:52 :53:47		Organise 6 000 3 000 3 000 6 000 6 000				
<u>ध द द</u> द	Money spr Date Comments New	Variables	All Variables	: 49:52 :53:47		Organise 6 000 3 000 3 000 6 000 6 000 6 000				
বেব্ব	Money spi Date Comments New	Variables	All Variables ports 19-07-2011 09 19-07-2011 09 ub puntry ender	: 49:52 :53:47	•	Оrganise <u>6 000</u> <u>3 000</u> <u>3 000</u> <u>3 000</u> <u>3 000</u> <u>6 000</u> <u>6 000</u> <u>6 000</u> <u>6 000</u> <u>6 000</u> <u>6 000</u>				

4. After having imported the new cases, we take a look at our variable list. OfficeReports always add a variable called Imports. In this variable is registered all imports of new cases and organize them in a new import category.

Updating and Merging Cases

When merging data in OfficeReports each case is updated using new data. For this operation to be successful each case needs to be assigned a unique ID. The simplest procedure to do this is to

have a variable in the original data sheet containing a unique ID for each case. However, it is possible to create these identification "keys" using many variables to define each individual respondent. For example, one could use an invoice number combined with a costumer number. However, the more variables that are used to define each individual case, the longer the import will take.

Import the data sheet containing the updated data. When the variable selection window comes up, click the `Merge´-tab, check the box

port Merge Settings	
Merge: add the variables to the existing cas	ies
Mark variable(s) which iniquely identify the cas	ses. This can be a combination of variable
10 U	ר (1
C CUB	
Country	
C Gender	
C Age	
Courses	
Driving range	
C Reception	
C Shop	
Money spent in restaurant	
Money spent in shop	
Date	





labeled `Merge', and choose which variable or variables that should be used to identify each case.

- 1. In our example we have a variable named `id´ which is individual for each respondent. Therefore, we choose this variable as the `key´ by clicking the box to the left of it.
- 2. Back in the variable selection list, we can see that the `id'-variable has been given a keyicon indicating that it is the variable used for identification of respondents.
- 3. After updating the cases the variable list will look the same, however, the cases now contain the updated data.

	Variable Selection and Type Settings	
It is also possible to add additional cases at the	Import Merge Settings	2
it is also possible to add additional cases at the s	id 🦉	numeric
OfficeReports will update the old cases and add	Club Country	categories categories

Observe: When merging cases, OfficeReports ONLY import and/or update data regarding existing cases. OfficeReports will not add data for the cases where a key is not found! For these cases please use the standard import features.

within the data.



In this section we will go through and explain the different types of variables in OfficeReports. Each variable type has a specific icon and color. The icon specifies the kind of variable it is, the color gives information if the variable is an original one or if it is derived.

After importing data, the window shown below will appear. The variables-window is where all things that have to do with altering, organizing, or restructuring of the variables is done.

Variables -		Selected Variable
🔺 👻 🗛 🖌 🖌	▼ Organize	Label: Imports
Imports 02-12-2011 09:05:04 2 Club 3 Country 4 Gender 5 Age 6 Courses 7 Driving range 8 Reception 10 Spent restaurant 11 Spent shop 12 Date 13 Comments	3 000 3 000 5 1	Iext: 3 How do I ? 5 Click on the subjects below to get more information: Arrange the order of categories in similar variables automatically? Create a variable containing intervals derived from a numeric variable? Create a variable containing periods derived from a date variable? Group variables into a "multiple" variable? Create?
		Create a variable derived from other variable(s)?
		Add tables and charts to my report?

1. On the left side we can see all our variables. Notice that each different type of variable has a different icon:



- 2. To the right of the variables we can see the number observations contained in each variable. If we expand a categorical variable we can see the spread among the different categories in the variable.
- 3. By highlighting a variable you can view and edit the variable label and text.
- You can change the order of the variables by moving them up and down using the arrow keys. (Instead of using the arrow keys you can use the short key ctrl+↑ or ctrl+↓)
- 5. Link to support and forum

On a very basic level there are two kinds of variables:

• **Original variables** – which all are colored red - recognized by OfficeReports and created automatically from the data

 Derived variables – which all are colored blue - created by the user based on other variables

The following sections will go through these variables.

Original Variables

12

Categorical variables

This kind of variable is one where the data can be divided up into categories - for example a rating on a scale (Very bad – Very good) or categorical information as gender, department, country etc.

Insert additional Categories to variables

Categories are automatically created by data import, but you can always add additional categories to a variable.

- 1. Select the variable where you want to insert a new category
- 2. Right-click the mouse button and select 'Insert Category'
- 3. Give a name to the new category and press OK
- 4. The new category will be added.

6 Courses	D 225	
Average	Organize other variables like this one	
Bad Good	Insert Category	
No response	Cancel	
Very good	515	

Reordering categories

When importing data from a simple data file – i.e. Excel – the categories will be organized in an ascending alphabetical order. If the data format is i.e. Triple-S the order will follow the definition in the Triple-S file. To organize the categories in a different order, it is possible to manually rearrange the order of the categories.

 Excel-data is default organized in ascending alphabetical order. If the response options are not displayed in the desired order, simply highlight each of them and use the arrows in the top left corner to move them. (Or use the short keys ctrl+↑ or ctrl+↓)



- If many variables are using the same categories, you right-click the organized variable and choose `Organize other variables like this one'.
- Organize other variables like this one Insert Category Cancel
- 3. In the window that pops up simply click on the variables that are to be organized



the same way. Only variables sharing exactly the same categories can be organized automatically like this.

Assigning Values to Categorical Variables

In some cases it is meaningful to assign values to Categories. In our example where golf courses are rated on a 5 –point scale from 'Very good' to 'Very bad' it can be useful to add a value to each of scale points as this makes it is possible to calculate mean and standard deviation and add this useful information to tables and charts:

- We start by clicking the `Variables´- button in the top left corner. To add value to a category, expand the variable to assign values to by clicking the `plus´-sign to the left of it highlight a category, check the `Value´ option that appears on the right side, and write the desired value.
- 2. If a category should not be included in the calculation of a mean in this case it could be relevant for the 'No response' category, check the `No Value'-box.
- 3. In our example we have chosen to add values from 1 to 5, as well as checking the box `No Value' for the `No response'-option so that it does not interfere with our results. It is possible to use any values, including negative and decimal numbers.

If you do not add values to the categories, and you define tables and charts including calculation of mean, standard deviation etc., OfficeReports will assign a default value to all categorical variables. OfficeReports will then default give the first category the value '1', the second the value '2' etc.

Office Reports - 3000 cases	
Variables	Selected Category
All Variables	Organize <u>Iext</u> Very good
	3 000 3 000 3 000 3 000 0 Optional value for mean calculation: 2 000 1 Optional value for mean calculation:
Genuer Genuer Genuer Genuer Genuer Genuer Genuer Genuer Verybad = 1.00	3 000 3 000
3 = Bad - 2,00 Average - 3,00 Good - 3.00	571 Organize other variables like this one 668 807 Insert Category
Very good - 5,00 No response T 7 Driving range	515 104 3 000 How do I ?
	3 000 3 000 Click on the subjects below to get more information: 3 000
 I1 Spent shop I2 Date I3 Comments 	3 000 Arrange the order of categories in similar variables automatically? 3 000 51 51 Create a variable containing intervals derived from a numeric variable?
	Create a variable containing periods derived from a date variable?
	Create a variable derived from other variable(s)?
Group Copy New Variable	Add tables and charts to my report? New Category Close
K Group Copy New Variable	New Lategory Llose

4. As we have more than one variable that has data in this format, that is, the variables `Driving range', `Reception', and `Shop' all have responses given in categories from `Very good' to `Very bad', we would also like to add values to these response options as well. Again, this is easily done by right-clicking the `Course' variable and choosing `Organize other variables like this one'.

Numerical variables

Numerical variables are data that are expressed as numbers. Examples from our data sheet are Age, Money spent in restaurant and Money spent in shop. In order to analyze this kind of variables we can calculate things such as the average age or total consumption. Furthermore, to enhance

the ability to use numerical variables it can be useful to divide the numerical data up into intervals. This will be explained in the section <u>Derived Categorical variables</u> based on numerical variables.

In OfficeReports it is possible present numerical variables in various ways. To show the total sum of all the numerical variables simply create a table or a chart using the numerical variable. OfficeReports will then ask for a background variable. By default OfficeReports will show the total sum of the numerical variable, as well as for each of the background variables chosen. For more

Money spent in restaurant				
Argentina	8165	11%	600	
Denmark	13622	19%	600	
England	10614	14%	600	
Spain	16449	22%	600	
USA	24561	33%	600	
Total	73411	100%	3000	
Mean	24,47			

information on display-options when creating tables, we refer to the section Tables.



Text Variables

Text variables can be any given string of letters. Most often it contains comments or answers to open questions. In short, data that is not numerical, a date or cannot immediately be categorized. OfficeReports will help in presenting these data. An example of this is that it is possible to sort text variables into different groups depending on other variables. This means that it is possible to see the comments written only by those who were unhappy with a particular service, which they had indicated in another question. Reporting text-variables is explained in the section <u>Text Lists</u>. Text data from an Excel data-sheet will automatically be imported as text if the Excel column is formatted as text. If the column is not formatted OfficeReports will as default suggest that this variable is imported as categorical variable. If you want to make the right setting in Excel simply right-click the column head in Excel, choosing `format cells...', and choosing text in the list on the left side.



Date Variables

The date variable is very useful when part of the data is a date. It can be when an observation was made, when an interview took place, or even date of birth. When importing data from an Excel data-sheet it is important, to be able to use this function, the cells containing dates are formatted

into a date-format. This is done simply by right-clicking the column head in Excel, choosing `format cells...', and choosing dates in the list on the left side.



Derived Variables

To use a dataset as a basis for building reports, you might realize that data are not organized perfectly for your needs. Perhaps you need the numeric variable 'age' organized as a categorical variable containing 4 age categories, a date variable organized as week days etc. etc.

In OfficeReports we call it 'derived variables' when you create new variables based on original variables. Derived variables are blue and original variables are red.

In this section we will review how OfficeReports can create derived variables based on:

- Categorical variables
- Numerical variables
- Date variables

All derived variables are all based on combinations and/or calculations. OfficeReports gives a few easy ways to define derived variables, but you can as well use the formula editor to define more complex variables and categories. In this section we will examine them all.

Derived Categorical variables based on categories

In OfficeReports you can insert your own new variables where categories are built on categories from other variables. It could be a new variable 'Argentina - Gender' containing two categories (country= Argentina AND gender=Male) and (country=Argentina AND gender=Female). To create this new variable we click `New Variable´ in the bottom of the variable- window.

 Give the new variable a Label name and Text, and select the variable type. In this case 'Categorical. Click 'OK' and the new variable is added to the variable list.

Creat	e Variable				
L	abel: Gender	- Argentina			
Т	ext:				
C	Gender - Argentin	a			
			1		
	Type Categorical	Numerical			
			<u>C</u> ancel	<u></u> K	J







3. Thereafter we drag-and-drop `Female' from the gender variable onto the 'Argentina' category under the new variable.

- A small menu will then appear giving to option to choose between `AND' or `OR'. Choose the option `AND'.
- The category will then change its name and contents so that it now contains 127 observations, all of which has answered `Argentina´ and `Female´.

2. Create a new category in the new variable 'Argentina' by dragging the category 'Argentina' from the 'Country'-variable on the new variable 'Gender – Argentina'.



- 6. We then repeat the procedure and add one more category to our new variable. Now we combine 'Argentina' and 'Male'. OfficeReports gives automatically the categories a logic name. You may edit the name into something more appropriate regarding your report.
- 7. A new derived variable is now added to the list of variables, ready to use for new tables, charts etc. You may combine as many categories as you need to build new variables and categories.

Derived Categorical variables based on numerical variables

Presenting numerical variables as intervals is often beneficial for analytical as well as presentational purposes. In our example, Age is one of the variables. Say, for example, that we are interested in creating four different age groups, each of the same size. We will now show how to create these.

 Locate the numerical variable, in our case `Age´, right-click it, and choose `divide in equal-sized intervals (percentiles)´. In many situations it is a must

1 Imports	1
9 5 Age	
🛨 💶 6 Courses	devi
 7 Driving range 8 Reception 	cane





that you can divide your data into percentiles, which basically is dividing your numeric data into 10 groups each containing an equal number of observations. In OfficeReports you can easily create as many derived variables based on a numeric variable as you need.

2. In our example we would like four intervals, so we simply change the standard of two intervals into four in the window that appears. We then click `OK'. A new variable will now appear in the tree-structure given a blue icon ■ signalizing it is a derived categorical variable:

3. OfficeReports will always name the new derived variable 'Intervals'. As usual you can change the name by highlighting the variable and change the label and text in the boxes on the right-hand side. The fact that the intervals created by OfficeReports are equally divided gives us a good starting point for analyzing the data. We now move on to change these intervals so that they have the following intervals; 15-25, 26-40, 41-60, and 61-90.

Variables -		Selected Variable
All Variables	Organise	<u>I</u> ext: 15-25
🕀 💶 1 Imports	3 000	
🛨 🚺 2 Club	3 000	· · · · · · · · · · · · · · · · · · ·
🕀 💶 3 Country	3 000	
🕀 💶 4 Gender	3 000	<u>v</u> aiue: <u>N</u> o vaiue
9 5 Age	3 000	Formula:
Age intervals	3 000	
15 - 25	768	Age] >= 15 and [Age] <= 25
26 - 40	744	
41 - 60	745	
61-90	743	
🕀 💶 7 Courses	3 000	

4. To alter the intervals we highlight each category that has appeared under the `Age intervals´-variable, and change the formula that is written in the bottom box on the right-hand side. Do not forget to click `Calculate´ after being done changing each formula.
Optional value for mean calculation:

<u>V</u>alue:
 <u>Exclude from mean calculation</u>

5. You are now ready to use the new variable for reporting or to combine with other variables.

Derived Numerical variables based on numerical variables

If we would like to know the total expenditure at the golf club, that is, the added expenditure of both the shop and restaurant, we can add these variables together into a new variable.

 We do this by clicking the one numerical variable button in the top left corner. We then simply use drag-and-drop and drag one of the numerical



variables onto the other. A menu will then appear giving us the options to; `add´, `subtract´, `divide´, or `multiply´. In our case we would like to add the two, hence we choose `add´.

- A new numerical variable will then appear named `Money spent in shop + Money spent in restaurant'. This variable is iconized
- 3. If we do not like this name, highlight the variable, and edit the t right-hand side. To change the name displayed when the new text in the text box below.

Derived Numerical variables based on categorical variables

It might sound a little abstract to talk about deriving numerical variables based on category variables, but if for example take data from a multiple choice test given to 100 students, you might have 100 categorical variables where each category in each variable is given a value to express the value of the answer given. Now of you add up all the answers you can calculate a sum or result. This result can be added to the data set as a new derived variable.

Example 1: Calculating a Numerical variable based on observations in a group of categorical variables - step1

In our example data set we have four variables to illustrate satisfaction; Courses, Driving range, Reception and Shop. Each of these variables contains a scale 'Very bad' to 'Very good', and each of the categories on the scale is given a value.

6 Courses
Very bad - 1,00
Bad - 2,00
Average - 3,00
Good - 4,00
Very good - 5,00
No response

Now we will create a Derived Numerical variable 'Overall satisfaction' containing the sum of the 4 scale values divided with 4. This could be considered as a messure for an Overall satisfation.

We enter a 'New Variable' called 'Overall satisfaction' and define it as a 'Numerical variable.

When the new variable is given a name the next step is defining its content.

Create Varia	able
Label:	Overall satisfaction
Text:	
Overall s	satisfaction
Type Cate	egorical Numerical
	<u>Cancel</u>





🛨 💶 6 Courses	3 000
🛨 💶 7 Driving range	3 000
🛨 💶 8 Reception	3 000
🛨 💶 9 Shop	3 000
10 Overall satisfaction	0

When the new variable is highlighted, you can see a formula box in the right side of the variable window, and the formula is entered:

([Courses.!Value]+[Driving range.!Value]+[Reception.!Value]+[Shop.!Value])/4

Formula:	
([Courses.!Value]+[Driving range.!Value]+[Reception.!Value]+	-[Shop.!Value])/4
	Calculate

Press 'Calculate' and the content of the new variable is ready to use for tabulation, filtering etc.

Example 2: Calculating a Numerical variable based on observations in a group of categorical variables - step2

Calculating an Overall satisfaction as described above (Example 1) requires that we have observations for all objects on all variables included in the calculation. If an object does not include observations for all the variables you cannot just divide the sum of the values by a fixed number, but you must for each observation take into consideration how many of the variables actually include an observation.

So in the example instead of dividing by 4, we divide by the number of variables where observations are included. Variable.!Observed is =1 if there is an observation on the variable, and =0 if there is no observation.

This number can be calculated by this formula:

([Courses.!Observed]+[Driving range.! Observed]+[Reception.! Observed]+[Shop.! Observed])

The alternative formula for calculating the 'Overall satisfaction' is:

([Courses.!Value]+[Driving range.!Value]+[Reception.!Value]+[Shop.!Value]) /

([Courses.!Observed]+[Driving range.!Observed]+[Reception.!Observed]+[Shop.!Observed])

Formula:	
([Courses.!Value]+[Driving range.!Value]+[Reception.!V ([Courses.!Observed]+[Driving range.!Observed]+[Rece Observed])	alue]+[Shop.!Value]]/ eption.!Observed]+[Shop.!
	Calculate

Example 3: Calculating a Numerical variable based on observations in a group of categorical variables – step3

If the variables in the example above include categories which are marked 'No Value' – typically categories as 'Don't Know', these should be excluded in the calculation of the Overall satisfaction.

In this situation we must calculate the denominator using 'Variable.!HasValue' which calculates a value =1 for observations which has a value.

This number can be calculated by this formula:

([Courses.!HasValue]+[Driving range.! HasValue]+[Reception.! HasValue]+[Shop.! HasValue])

The alternative formula for calculating the 'Overall satisfaction' is:

([Courses.!Value]+[Driving range.!Value]+[Reception.!Value]+[Shop.!Value]) /

([Courses.! HasValue]+[Driving range.! HasValue]+[Reception.! HasValue]+[Shop.! HasValue])

In <u>Appendix 1: The Formula Editor</u> you will find much more information about how to define new formulas using the formula editor

Derived Period Variable based on Date Variable

Many data sets contain date variables. For reporting these are not only useful as filters. Quite often it is necessary to transform a date into a weekday, a month or a year. Deriving these types of variables based on date variables is a simple operation in OfficeReports. A few clicks and you have added one or more of the following 13 Period variables based on a date variable:

Current Period	Calendar Period
Days (first day – last day)	Working days (Monday – Friday)
Weeks (first week – last week)	Week days (Monday – Sunday)
Months (first month – last month)	Months (January – December)
Quarters (first quarter – last quarter)	Months Q1 (January – March)
Years (first year – last year)	Months Q2 (April – June)

Months Q3 (July – September)
Months Q4 (October - December)
Quarters (Q1- Q4)

- Select and right-click a date variable, and choose `create periods' as shown to the right.
- 2. After choosing `create periods´, a window will open in which we can choose the desired period in the drop-down menu in the top. In our example, we would like to know if there is a difference between countries in the number of visitors during the year. Hence, we choose to create a `Months´-variable as seen to the left.
- After clicking `OK´, a new variable will appear in the list of variables as seen below. As usual it is possible to change the name of the variable and the name that is displayed when it is used by highlighting it, and changing the two text fields on

14 Months		3 000
January		216
February	(3)	183
📧 March	Ŭ	184
💌 April		290
💌 May		341
📧 June		299
💌 July		297
💌 August		293
September		313
October		211
November		199
December		174

the right side.

4. You are now ready to use the new variable for reporting or to combine with other variables.

Formula Editor for derived variables

As shown above the derived variables and categories are based on combinations and formulas. OfficeReports contains a formula editor that can be used to define variables and categories on your own. In Appendix 1 you can read much more about the <u>Formula Editor</u>. The options are many but let us take two examples:



Example 1: Define a numerical variable using the formula editor

Add new variable, define it as numerical. Then use the formula editor for adding two numerical variables and multiply the sum with 12:

Selected	Variable	
<u>L</u> abel:	Spent restaurant + shop, Year	
<u>T</u> ext:	Consumption in total per year	* *
Formula	a:	
([Spenl	t restaurant] + [Spent shop])*12	
		Calculate

Example 2: Define a category variable using the formula editor

Add a new variable, define it as categorical. Then use the formula editor for defining two categories: 'Men aged 50+' and 'Women aged 40+'. The formula for 'Women aged 40+' is:

Formula:	1
(Gender.Female) and [Age] > 39	l
	I
	1

These two are just examples. In Appendix 1 you can read much more about the options using the Formula Editor

Group Variables

Sometimes data is not organized properly for reporting. In our example data set we have a variable 'Country' well organized containing 5 different countries as categories. Imagine that each of these categories were organized in 5 individual variables, each containing just 1 category. In this situation it is easy to organize the 5 individual variables in one Group Variable using the 'Group' feature.

 In the demo data set we have two variables 'Country' and 'Gender' which we want to combine in a Group Variable. Press the button 'Group' at the button of the Variable window to create a Group Variable.



Create Group Variable	2. Give the new Group v	ariable a	
Group Variable	label and text. Select the variables to be		
Label: Country and Gender	grouped and press 'OK'.		
Text:			
Country and Gender			
	Country and Gender	3 000	
	Argentina	600	
	Denmark	600	
- Chasse) (ariables To Group	England	600	
Choose valiables to croup	Spain	600	
1 Imports	USA USA	600	
2 Club	Female	1 0 6 4	
🐯 3 Country	Male	1 936	
😎 4 Gender			
	 The new Group variab 	ole is	
now added to the Variable list:			

Organize Variables

Variables are default displayed in a group called 'All Variables'. If you have a large amount of variables it can be useful to organize the variables in subgroups to get a better overview.

1. Press 'Organize' and insert a new subgroup.

Variable	28	(1)		
÷ •	All Variables		•	Organize

2.	Define and name a subgroup
	containing the four variables
	regarding valuation of the golf club;
	'Courses', 'Driving range',
	'Reception' and 'Shop'.

Define Group of Variables			
Name of the Group			
Name: Valuation of Golf club			
This Group contains the marked variables			
1 Imports			
2 Club			
3 Country			
4 Gender			
5 Age			
🐶 6 Courses			
🐶 7 Driving range			
🐶 8 Reception			
😎 9 Shop			
10 Spent restaurant			

Variables 7				
▲ ▼ Valuation of golf clubs	Organize			
All Variables				
🛨 💶 6 Valuation of golf clubs	3 000			
🛨 💶 7 Driving range	3 000			
B Reception S Rece	3 000			
🗉 9 Shop	3 000			

3. Now the standard group 'All Variables' is complemented by the subgroup 'Valuation of gulf clubs' and you can at any time select which group you want to focus on.



View, Edit and Export data



You might need to check or edit data in OfficeReports. Select the variables you are focusing on, add eventually a filter, and your data is displayed. If you edit your data, after tables and charts are produced, a click on 'Update Report' will refresh your tables and charts due to your editions.

And if you want to export all data from OfficeReports a click will export data– even data form new calculated variables – ready to use in new contexts as software for analytical statistics etc.

We will now go through these facilities, step by step.

- 1. Using the `View, Edit, Export'-function it is possible to view the observations of any variable in a long list with raw data. Clicking this button will open a window in which the variables are shown on the left side. Click those to see a list of or simply choose `Select all'.
- 2. To the right it is possible to define any filters to be applied on the list. Read more about filters in this manual in our section <u>Report Filters</u>.
- 3. To view the list, click `View Data in the lower right corner.

	Deline Files
Country Gender Age Courses Chriving range Reception Shop Money spent in restaurant Money spent in shop Date	2
Select All Cher All	View Data Oove

4. Below is a small portion of the window that is shown after choosing three of the variables in our example, namely `Country', `Gender', and `Age'. In this list are all 3000 respondents and their information on the three variables we just selected.

Da	Data View (4)						
		СІиь	Country	Gender	Age		
	1	Jefferson Park Golf Course	USA	Male	22		
	2	Pine Valley Golf Club	USA	Male	17		
	3	Ann Arbor Golf Club	USA	Male	24		
	4	Cypress Point Club	USA	Male	16		
	5	Cypress Point Club	USA	Male	25		

- 5. Observations can be edited by double-clicking an observation. For example, double-clicking a categorical variable will enable the ability to choose between the categories defined in that variable. Click the first cell in a row, and all data in the row is marked blue, now it is possible to use the `Delete Case'-option, which means that all data for this specific record is deleted. In order to save the changes made to any of the observations, click `Save Changes' in the lower right corner of the window. To choose other variables, click `Define New Display' in the lower left corner of the window.
- Data can be exported into a CSV-file readable by many different software programs. To export the data, simply click `Export´ in the lower left corner of the window.

Tables



Having data properly organized in Variables it is a simple operation transforming data into in to **tables**, **charts** and **text lists** added to Word documents and PowerPoint presentations.

OfficeReports calculates and output tables in Excel format. This means that every table added to a report is added as an Excel object.

This means that you can double-click on any table and instantly open Excel, where you can make almost any adjustments in a familiar Excel user interface. Furthermore you can design and customize your very own standard layout for your tables. You can read more about this in <u>Layout</u>.

In this section, we review all the features that you immediately have available in the production of tables in the OfficeReports:

Add Table

When using this facility all tables are calculated in OfficeReports, and displayed in Excel tables. The style is default defined by OfficeReports. When it is added to the report it is added as an Excel- object, and it can be edited at any time.

If you want an alternative layout, you can read more about customizing the table layout in the section \underline{Layout} .

Country

Argentina



(5)

Save Changes

Define New Display

Tables are created by using categorical or numerical variables. Read more on each of these types of variables in our section <u>Variables</u>. We will firstly present all our types of tables using a categorical variable, and then we will show how to present numerical variables with tables

Frequency Table

A Frequency Table is a table that lists items and shows the number of times they occur. Click `Add Table´ in the ribbon to add a table.



 Select `Courses' as the primary variable and OfficeReports promptly produce a table showing the distribution of how satisfied the golfers are with the Courses. OfficeReports calculates the result and the output is an Excel object which now can be added to the report by clicking `Add to Report' in the lower right corner.

CreateTable/Chart			
Primary Variable	Preview		
Courses 1	Courses (2)		
Uptional Background Variable	Very bad	335	11%
	Bad	571	19%
	Average	668	22%
	Good	807	27%
	Very good	515	17%
	No response	104	3%
	Total	3000	100%
Contents Size Filter Statistics Layout			
Values Totals			
ØDbservations Ø Observations Ø Base			
✓ Percentages			
<u>Confidence Interval</u> <u>Standard Deviation</u> Mean Confidence			
Don't Show			
O-values Gitaged Categories			
	Add To Re	eport	Close

2. This will create a table on the right-hand side as shown below. To add it to your Word document or PowerPoint presentation, simply click `Add to Report´ in the lower right corner

30

of the window. We have now created this most basic table in OfficeReports. Simple and informative.

3. Under the `Contents´-tab there are general settings regarding the structure and presentation of the table. Here is a table with a Content setting, focusing at Percentages plus statistical information as Confidence Interval on percentages (1), Mean and Standard Deviation (2) and Confidence Interval on the Mean :

Primary Variable	Preview							
Courses	Courses (confidence lev	Courses (confidence level=95%)						
Optional Background Variable Optional Background Variable Contents Size Filter Statistics Layou Values Totals Observations Mean Percentages Mean Optional Background Variable	Courses (confidence lev Very bad (1) Bad (2) Average (3) Good (4) Very good (5) No response (-) Total Base Mean Std. Deviation Mean Confidence	el=95%) 11% 1,13 19% 1,40 22% 1 1,49 1,59 1,59 1,35 3% 0,65 100% 3000 3,21 1,27 0,05 3						
Don't Show Don't Show Filtered Categories		()						

Read more about the options in the section General Table Functions.

Cross Table

Cross Table with one background variable

menu. In our case, we pick `Country'.

A background variable is a variable that will divide the primary data up into different segments. For example, it can be helpful in order to show the answers given by a certain group of respondents. In our example it could be helpful to know if there is any difference in the responses given by respondents in different countries.

- We go back to the `Add a Table´-window and choose a primary variable, as before we choose `Courses´. We then select a background variable in the drop-down means the own might `Country.
- 2. The table will now be divided with the respondents into two groups, and show the spread of results in each. As we can see below, the background variable lets us discover several interesting differences in the results in-between the countries of our study.

Courses						
	Argentina	Denmark	England	Spain	USA	Total
Very bad	16%	996	2%	25%	496	1 196
Bad	2196	9%	15%	38%	11%	19%
Average	49%	18%	196	25%	19%	22%
Good	9%	40%	45%	7%	34%	27%
Very g ood	2%	15%	35%	2%	31%	17%
No res pons e	3%	896	396	3%	196	3%
Total	100%	100%	100%	100%	100%	100%
Base	600	600	600	600	600	3000

Using cross tables will expand the options that are under the contents-tab.

- 1. Choose whether you want to display Observations, Percentages or both
- 2. It is possible to show a number of different information in the cross table. Each element based on either the rows or the columns.
- 3. The percentage type selected will determine how the percentages are calculated. See below for examples of each case.



Country			
	Female	Male	Total
Argentina	12%	24%	20%
Denmark	21%	1996	20%
England	1796	22%	2096
Spain	23%	18%	2096
USA	27%	16%	2096
Total	10096	100%	100%
Base	1064	1938	3000

Percentage Type: Column

For example:

Argentine females represent 12% of all females.

Percentage Type: Row

Country											
	Female	Male	Total								
Argentina	21%	79%	100%								
Denmark	37%	63%	100%								
England	30%	70%	100%								
Spain	41%	59%	100%								
USA	48%	52%	100%								
Total	35%	65%	100%								
Base	1064	1938	3000								

For example:

Argentine females represent 21% of all Argentines.

Percentage Type: Total

Country										
	Female	Male	Total							
Argentina	4%	16%	20%							
Denmark	796	1396	20%							
England	6%	14%	20%							
Spain	8%	1296	20%							
USA	10%	10%	20%							
Total	35%	65%	100%							
Base	1064	1936	3000							

For example:

Argentine females represent 4% of all in the data set.

Cross Table with several background variables Her kommer ekstra info når function er testet

Cross Table where background variable contain many categories

If using a background variable containing many categories there might be problems displaying the table in an appropriate manner; the text is displayed in a too small size or it does not fit the page/slide:

	Jahus Golf Club	ánn ábor GolfClub	Suence Alea Golf Club	Capenha gen Gdf Club	Cygress Point Club	C Salar	Jefeson Paik Golf Couse	rg Golf Club	Las Grisas	Libery National Course	Mardel Plata	Ohee	Pine Valley GolfClub	Rojal Birkshi e	Rojal St George's	Sologian de	Sunningd ale	Valdens ma	Véodhall Sga
Verybad	78	12	44	25	2 1	286	28	41 K	226	22	126	08	<i>8</i> 4	72	72	2.62	28	28	æ
Bad	1.02	11.00	66	78	1.02	2.06	68	200	201	100	2.26	2216	R	ax	1.62	2.0%	CR .	4156	476
diaraga	178	216	0100	23%	1.00	2.05	60 K	60 K	228	2.3%	6 0K	44	28	-		2.02	18	2100	•
Good	2.06	278	118	475	276	18	du.	4150	-CEL	2.06	6 W.	28	28	-05	100	116	du.	au.	426
Verygood	178	276	31	ditt.	286	28	2016	44	-	2.05	18	18	214	276	2.06	216	2014	76	30%
Nonegonae	26	18	26	R		28	18	78	-	<i>8</i> 4	18	28		74	74	28	216	26	74
Total	6.05	6.05	100.00	10010	1006	10.05	600	42.6	10010	1005	6.05	6.05	62.62	100	1005	10.05	eac	102.02	100%

Solution1: Swap the variables and use row percentage instead of column percentage. A good solution when you are working in portrait layout:

Club										
	Verybad (1)	Bad (2)	Average (3)	Good (4)	Verygood (5)	No response (-)	Total	Mean		
Aarhus GolfClub	796	1196	17%	39%	17%	9%	100%	3,52		
Ann Arbor GolfClub	496	14%	20%	27%	32%	4%	100%	3,71		
Buenos Aires GolfClub	1 596	19%	51%	1 196	3%	2%	100%	2,67		
Copenhagen GolfClub	996	7%	23%	40%	1396	8%	100%	3,42		
Cypress Point Club	596	14%	15%	37%	28%	196	100%	3,70		
El Saler	28%	39%	25%	496	2%	3%	100%	2,11		

Solution 2: Breakdown the background variable in two: Split a background variable containing many categories of two or more variables. In this case we use Club as background variable, but as it contains 19 categories it is hard to display just on one table. So based on the variable Club we define two derived variables 'Club- part1' and 'Club – part2':

Here is the result where 'Club- part1' is used as background variable. Observe that the base in the Total column includes all clubs – not only the clubs included and specified in the table, but all clubs from the original variable. The definition follows after the table:

Courses											
	Aarhus GolfClub	Ann Arbor Golf Club	Buenos Aires Golf Club	Copenha gen Golf Club	Cypress Point Club	El Saler	Jeffers on Park Golf Cours e	Kalundbo rg Golf Club	Las Brisas	Liberty National Cours e	Total
Very bad (1)	796	4%	15%	9%	5%	28%	296	1196	23%	2%	1 196
Bad (2)	1 196	1496	19%	796	1496	39%	1096	996	38%	10%	1996
Average (3)	1796	20%	51%	23%	15%	25%	16%	16%	23%	22%	22%
Good (4)	39%	27%	1196	40%	37%	4%	42%	41%	12%	29%	27%
Very go od (5)	1796	32%	3%	13%	28%	2%	29%	16%	196	36%	17%
No res pons e (-)	996	4%	2%	8%	1%	3%	196	7%	1%	<i>0</i> %	396
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Base	223	111	190	191	121	163	122	186	141	127	3000
Mean	3,52	3,71	2,67	3,42	3,70	2,11	3,85	3,46	2,29	3,87	3,21

With the breakdown of a background variable in two, remember to ensure that the base default not will contain all observations from the variable 'Club'. This means that a Total will not be calculated properly. The solution is to add an extra category called 'Total' including all observations from the variable 'Club' The formula for this category is: [Club.!All].

For more information take a look in the Formula Editor.

Variables	*
Tunubica	

▲ ▼ All Variables ▼	Organize
🛨 💶 1 Imports	3 000 🔺
1 2 Club	3 000 🥅
🖃 💽 3 Club - part 1	3 000
Aarhus Golf Club	223
Ann Arbor Golf Club	111
Buenos Aires Golf Club	190
Copenhagen Golf Club	191
Cypress Point Club	121
El Saler	163
Jefferson Park Golf Course	122
Kalundborg Golf Club	186
💌 Las Brisas	141
Liberty National Course	127
Total	3 000
🖃 💽 4 Club - part2	3 000
💌 Mar del Plata	195
 Olivos 	215
Pine Valley Golf Club	119
Royal Birkdale	160
Royal St George's	145
Sotogrande	141
Sunningdale	132
Valderrama	155
💌 Woodhall Spa	163
Total	3 000
E SCountry	3 000
Group Copy New Variable	New Category

Add Combi Table

Combi Tables display many primary variables in one table. This feature is useful when reporting data for variables based on similar categories. The feature is particularly useful when adding values to categorical variables and displaying mean and standard deviation in tables. To see how to assign values to categorical variables, please go to the section: <u>Assigning Values to Categorical Variables</u>.

0		Add Chart	Add Table	0	0	Senchmarking		Y Report Filter	0	•	/P Register
	Mariahtan Mary Edit	Add Combi Chart	Add Combi Table		Edia Catanàna	- Significance		Repetitive Reports	Defeat	Demonst Cattlenes	? Help
Data	Export	🔒 Add Many Charts	Add Many Tables	Text List	Table/Chart/List	⊥ Weighting	Layout	📥 Save As Report Template	Report	Data	About
	Data	Charts	Tables	Lists	Editing	Statistics	Layout	Filtering	Update	Options	OfficeReports

A Combi Table is a compact table that can have several primary variables in one single table.

- First we click `Add Combi Table´ and in the window that appears we will choose all the four variables that measured the satisfaction with different parts of the golf course. We do this by clicking `Choose Variables´ under the box on the left-hand side and clicking each of the variables.
- 2. After adding all of these to the list we will then get the table shown below. Again, remember that in order to create a Combi Table values are assigned to every category. Should these values not be well

Driving range	
E Reception E Shop	
Choose Variables	

set, it is possible to remove values from categories or to change them. Instructions on how to do this can be found in the section: <u>Assigning Values to categorical Variables</u>. The value that was given to the option `Average´ by us was 3, and we can see that the total mean is above that for courses, so we can conclude that overall most people have a satisfaction above average on that particular part of the golf club.

2	Verybad (1)	Bad (2)	Average (3)	Good (4)	Very good (5)	No res pons e	Mean
Courses	1196	1996	22%	27%	17%	3%	3,21
Driving range	1096	16%	28%	25%	1896	2%	3,24
Reception	1796	25%	18%	22%	1596	396	2,93
Shop	20%	22%	22%	21%	12%	3%	2,84

3. If you add a background variable to the Combi Table, you will get a very compact table either displaying Mean or Standard deviation according to the scaling:
| | Argentina | Denmark | England | Spain | USA |
|---------------|-----------|---------|---------|-------|------|
| Courses | 2,68 | 3,67 | 4,03 | 2,32 | 3,81 |
| Driving range | 2,55 | 3,60 | 4,02 | 2,51 | 3,83 |
| Reception | 3,64 | 3,06 | 4,15 | 2,21 | 2,03 |
| Shop | 3,85 | 3,04 | 3,88 | 2,10 | 1,80 |

Organizing Combi Table

It is possible to organize the order of results in the combi table. For example, it is often useful to have the variables with the highest mean in the top in a descending order. To do this, click the tab `Sort' in the `Add Combi Table'-window.

Contents Size Filter Statistics Layout Sort
Sort Variables
 Highest mean first Lowest mean first
Do not show all variables Image: Show index with the second se

Sort Variables (1)

In our example we would like to show the two sections of the golf club with the highest means first in a descending order. We do this by checking the box `Highest mean first' so that the variables are organized according to their mean:

	Very bad (1)	Bad (2)	Average (3)	Good (4)	Very good (5)	No response	Mean
Driving range	10%	16%	28%	25%	1896	2%	3,24
Courses	1196	1996	22%	27%	1796	3%	3,21
Reception	17%	25%	1896	22%	1596	396	2,93
Shop	20%	22%	22%	2196	1296	3%	2,84 🗸

Show a selection (2)

By checking the box `Show' and choosing to show 2 variables 'from the top' you choose the two two variables with the highest mean, in this case `Driving Range' and `Courses':

	Verybad (1)	Bad (2)	Average (3)	Good (4)	Very good (5)	No res pons e	Mean
Driving range	10%	16%	28%	25%	18%	2%	3,24
Courses	11%	19%	22%	27%	17%	3%	3,21

Add Many Tables



File	Home	i încert	Désign	Transitions	Animations	Slide Shi	no Review	View C	tticeReports				_
Add Data	Variables	View, Edit, Export	Add Chart Add Combi C Add Many C	Chart Add harts Add	I Table Combi Table I Many Tables	Add Text List	Edit Selected Table/Chart/List	A Benchria A Significar Weightin	nce a	TReport Filter Repetitive Reports	Refresh Report	Femove Settings Data	P Register Relp About
	Deta	The state of the s	Charts		Telbles	lists	taiting	Statistics	Lapout.	Filtering .	Update	Options	OfficeReports

To save time it might be helpful to have the ability to create many and tables in one process.

Press the button `Add Many Tables'-button. Lægnyt billede ind - bm/weight

- First choose the primary variables we would like by using.
- 2. Then optionally you can add background variables in the box to the right. By choosing 4 primary variables and 3 background variables we will get a total of 12 cross tables
- OfficeReports produces now automatically the tables and add them to the report. In PowerPoint one table per slide and in Word all

Primary Variables	Background Variables
 ♥ Courses ♥ Driving range ♥ Reception ♥ Shop 	I IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	2 Add/Delete
	Values Column Row
	Percentages Base Bean Mean Mean
	<u>O</u> DServations <u>S</u> td Dev. <u>S</u> td Dev. <u>S</u> td Dev.
1 Add/Delete	Column Row Total Total Dont Show Dont Show Dont Show Total Dont Show Total Dont Show Total Dont Show Total
	<u>C</u> ancel

objects are added in a row depending on size and document settings.

Tables including Numerical Variables

Numerical variables are presented in further detail in the section <u>Variables</u>. Using these to create tables offers a wide range of possibilities.

- Start off by choosing a numerical variable as the primary variable. Officereports will ask for a background variable. Optional you can add two background variables to create cross tables.
- Then we move on to the specific display options for numerical tables under the Contents´-tab. Here we choose what our table should contain. For example:

Contents Size Filter	Statistics Layout 🤇 📃 🕨
Values	- Totals
Totals	✓ Tot <u>a</u> l
Percentages	<mark>⊠ B</mark> ase ⊠ Mean
🔘 Mean	<u>Mean</u> <u>Standard Deviation</u>
Standard Deviation	

Primary Variable	
Money spent in restaurant	•
Background Variable	
Gender	•

Spent restaurant					
Female	29542				
Male	43968				
Total	73510				
Base	3000				
Mean	24,50				
Std. Deviation	33,48				

General Table Functions

Contents

It is possible to make changes how the data is presented under the `Contents'-tab.

- 1. The options in the top left corner determines if the table should show percentages, observations, or both.
- 2. To the right there are options to show different interpretations of the data in the table. The base shows how many unique observations are included in the table. The total shows how many cases are included in total. Finally, mean and standard deviation are calculated using numerical variables or values given to categories in categorical variables either default set by OfficeReports or by the user. Read more about assigning values to categorical variables under the <u>Assigning Values to categorical Variables-</u> section.
- In the bottom there are options to exclude data from the table, such as the exclusion of cells in the table that show 0-values.
 Filtered categories can be excluded from tables. Read more about the filter function in the <u>filter-section</u> below.



Courses	1			
Very good (5)	515	17%		
Good (4)	807	27%		
Average (3)	668	22%		
Bad (2)	571	19%		
Very bad (1)	335	11%		
No response (-)	104	3%		
Total (2)	3000	100%		
Base	3000			
Mean	3,21			
Std. Deviation	1,27			



Size

The tab to the right of the 'Contents'- tab in the `Add Table'-window is labeled 'Size'. Under this tab there are functions to alter the height and width of columns and rows in the table.

Con <u>t</u> ents Height	<u>S</u> ize Filter	Statistics L Width	ayout { 🕨 🕨		
Row <u>1</u> :	23 🜩	Col <u>1</u> :	30 🌩		
Row <u>2</u> :	18 🛓	Col <u>n</u> :	8 🛊		
Row <u>n</u> :	18 🌲				
<u>R</u> esize Table					

	Column 1		Column n	
Row 1	Cours es	J		
Row 2		Female	Male	Total
	Very bad	10%	12%	11%
	Bad	19%	19%	19%
	Average	21%	23%	22%
Row n	Good	28%	26%	27%
	Very good	17%	17%	17%
	No response	4%	3%	3%
l	Total	100%	100%	100%

Note that by adding the table to the report and then changing the size by clicking and dragging the edges is a bad idea since this will also affect the size of the text in the table.

Since the table created is an Excel-output it is also possible to change the layout of any individual table by using the layout functions that exist in Excel. Do this by double-clicking any created table in the presentation and thereafter using the layout functions that are integrated in Microsoft Office. Instructions on how to use these table-layout functions can be found on Microsoft's web-page at <u>office.com</u>. For further layout options see the <u>Layout</u> section. Notice that the functionalities described under that section are only available for those users upgraded with the Layout-package.

Filter

Under the `Filter'-tab filters can be applied to individual tables based on one variable. For example, filtering for `Male' will exclude all female responses from the table. For filtering of whole reports, please see the <u>Report Filter</u>-section.

Any category from either original variables or derived variables can be used as filter. If you do not have a proper filter for your table, you can define a derived

■ Contents Size Filter Statistics Layout	►
Gender	•
Female	
Male	_
	- 1
	- 1
	- 1

variable containing a category equal to the filter you nee. Derived Variables.

Should a table include a response option that is filtered out, the label of the category is still shown. However, the number of observations or responses will of course be zero. In order not to display a category that has been filtered out in the table, the option `Filtered Categories´ under the `Contents´-tab needs to be activated. After doing this, the table that created will not display any filtered categories. This function is also useful when mass producing reports as it will only show the

relevant information in each report created. See more about mass producing filtered reports in <u>Repetitive</u> <u>Reports</u>

Statistics

The `Statistics'-tab is where weights and benchmarks are added to the table. You can as well overrule the standard report setting of how to calculate confidence levels.

Benchmark: Based on benchmarks you might have defined (<u>Benchmarking</u>) you can add benchmark columns for a table.

Significance: If you have added Confidence level to your table, this will be based on the default Significance settings (<u>Significance</u>). If you want to overrule these setting for this specific table, you can edit it here.

Contents Size	Filter	Statisti	⊃s <mark> _</mark> ayout	₹ ▶
Add Benchmark Co	lumn			
Country				Add
J				<u>D</u> elete
Significance				
Verule: Leve	a 95	-	N·	
Weighting	95			
Country & Gender	99			-
U .				

Weighting: If you have not added a default Weight setting for the report (<u>Settings</u>) or if you want to overrule the setting for this specific table you can add a weight to the specific table. You can use weight variables which you might have imported with your data or weights calculated in OfficeReports.The process of creating case weights is described in the <u>Weighting Data</u>-section.

Layout

Under the `Layout'-tab it is possible to change the title of the chart. Simply write the desired title in the empty text-field and click `Show Title'. The option to lock the table layout is a function that makes it possible to keep the design and layout defined using the Excel-design functions, even when choosing new variables for the table. Should any variables be changed for an existing table, the design will automatically be set to the OfficeReports standard unless this `Lock Table Layout' is chosen. However, keep in mind that if this option is active, and the report is used as a template, the table will not adapt to the new data with regards to number of columns, rows, etc.

Contents Size Filter Statistics Layout	Þ,
Title Multiple Generation Filter Table Filter Report Filter This is an alternative Title	
C Lock Table Layout	
I Size Filter Statistics Layout Macro	×.
Run Excel Macro: Run Word Macro	_

Macro

Macro kan vi her fortælle om muligheder og give links?

Charts



Having data properly organized in Variables it is a simple operation transforming data into in to **charts** and add it to Word documents and PowerPoint presentations.

OfficeReports calculates and output Charts in Excel format. This means that every chart added to a report is added as an Excel object.

This means that you can double-click on any chart and instantly open Excel, where you can make almost any adjustments in a familiar Excel user interface. Furthermore you can design and customize your very own standard layout for your charts. You can read more about this in <u>Layout</u>.

In this section, we review all the features that you immediately have available in the production of charts in the OfficeReports:

Add Chart



Charts are graphic and presentation-friendly presentations of data. They can be designed in a variety of ways using the built in layout-options in Excel or a user defined design. In the following section we will explain how to create all the sorts of charts that OfficeReports has to offer; namely;

- 1. Frequency charts with one variable
- 2. Cross charts with two variables
- 3. Combi charts with many variables

We will finish the section off by explaining the general chart settings.

Frequency Charts

- 1. To create a frequency chart click `Add chart´ in the ribbon toolbar. A window will open similar to the one in which tables are created. As before, simply choose the desired primary variable, in our case `Driving range´, and a graph will appear on the right side.
- 2. In the lower left corner the `Contents´-tab is found, it contains the general settings. These are described in the section <u>General Chart Settings</u>.
- 3. To add the chart to the presentation click `Add to Report' in the lower right corner.





Cross Charts

- 1. To create a cross chart we click the `Add Chart´-button and pick a primary variable, `Driving range´. We then choose the background variable `Gender´ in the background variable drop-down menu.
- 2. By clicking `Switch Row/Column' the primary and secondary variable are switched.



 When creating a cross chart the `Contents´-tab will have some special options. The `Percentage type´-options lets the user choose how the total percentage should be spread over the chart. We will now explain this in greater detail.



In this chart, each column pair equal 100 percent. That is, each response option in the background variable equal 100 % each.



Percentage type: Row

Percentage type: Column

In this chart, the columns of the same color together equal 100 percent. That is, each response option in the primary variable equal 100 percent.

Percentage type: Total



In this chart, all the columns combined equal 100 percent. So every piece of the chart is included in a total of 100 percent.

Add Combi Chart



Combi charts are capable of showing several primary variables in one single chart. This feature is optional for categorical variables when the variables contain similar categories. To create this kind of chart we click the `Add Combi Chart´-button. In the window that appears we choose the four golf club rating variables as primary variables, and gender as our background variable.



Remember that the categorical variables will be assigned values

by OfficeReports when creating a Combi chart, as it will show a calculated mean of the variable. It is possible to change the values given by OfficeReports or remove certain options from the calculation. Read about assigning values under the section <u>Assigning Values to categorical</u> <u>Variables</u>.

Add Many Charts

D 🖸 🔍	Add Chart Add Combi Chart	Add Table	0	1	Significance		TReport Filter		1	P Register ? Help
Data Export	# Add Many Charts Charts	Add Many Tables	Text List	Table/Chart/List	T Weighting Statistics	Layout	A Save As Report Template	Report	Data Optioni	About OfficeReports

To save time it might be helpful to have the ability to create many charts in one process.

Læg nyt billed ind bm/weight

Press the button `Add Many Charts'-button.

- First choose the primary variables we would like by using the `Add/Delete´-button.
- 2. Then add background variables in the box to the right in the same way. In this example 4 primary variables and 3 background variables are selected; 12 charts.



3. All charts will be added to the report when pressing `OK'.

OfficeReports will then automatically produce the charts. In PowerPoint one chart per slide and in Word all objects are added in a row depending on size and document settings.

General Chart Functions

Contents

Under the `Content´-tab there are options to show percentages or observations. Percentage Type can be selected when using background variables. In the bottom it is possible to choose 'Don't Show' certain elements. 0-values are categories that were not reported, such as a response option that was not chosen. Filtered categories are categories which are filtered by the user. Read more about filtering a chart under the section <u>Filter</u>.

Contents Size Filter Statistics Layout Values Percentage Type Observations Percentages Mean Std. Deviation Total Don't Show O-values Filtered Categories

Size

The tab to the right of the `Contents´- tab in the `Add Chart´-window is labeled `Size´. Under this tab are functions to alter the height and width of the chart. Note that by adding the chart to the report and then changing the size by clicking and dragging the edges is a bad idea, this is because it will also affect the size of the text in the chart.

▲ Contents Size Filter Height	Statistics Layout {
Chart Area: 340 🛔	<u>C</u> hart Area: ↓460 🜩
Resize	e Chart

Since the output from OfficeReports is an Excel based chart, changing the individual layout of the charts is very easy. Just double-click the chart and a number of built-in layout options will appear in the ribbon. For further explanation on these chart-layout functions, visit the Microsoft web-page at <u>office.com</u>. For further layout options in OfficeReports see the <u>Layout</u> section.



Filter

Under the `Filter'-tab it is possible to filter the chart. For example, filtering for `Male' will exclude all female responses from the chart. For filtering of whole reports, please see the <u>Filter</u>-section.

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Any category from either original variables or derived variables can be used as filter. If you do not have a proper filter for your chart, you can define a derived variable containing a category equal to the filter you need (<u>Derived Variables</u>).

▲ Contents Size	Filter 9	Statistics	Layout (•
Gender				•
Female				
Male				
1				

Statistics

The `Statistics'-tab is where weights and benchmarks are added to the chart.

Benchmark: Based on benchmarks you might have defined (<u>Benchmarking</u>) you can add benchmark columns for a chart.

Weighting: If you have not added a default Weight setting for the report (<u>Settings</u>) or if you want to overrule the setting for this specific chart you can add a weight to the specific chart. You can use weight variables which you might have imported with your data or weights calculated in OfficeReports. The process of creating case weights is described in the <u>Weighting Data</u>-section.

Benchmarking and Weights

The `BM/Weight'-tab is where weights are chosen and applied. In this menu all numerical variables can be chosen. The reason for this is that the original data might contain weights in the form of numbers. If this is the case, apply the weights by choosing the numerical variable in this drop-down menu. However, it is possible to create weights. The process of creating case weights is described in the <u>Weighting Data</u>-section. The weights created will also be found here. The use of benchmarks is restricted to cross-tables. For instructions please go to

the section Benchmarking.

Layout

Under the `Layout'-tab it is possible to do three things. Firstly, it is possible to change the title of the chart. Secondly, the y-axis can be fixed to show up to 100%



Add
(<u>C</u> hange
Delete

Contents Size Filter Statistics Layout					
Title					
Multiple Generation Filter					
Table Filter Report Filter					
ſ					
Lock Table Layout Axis maximum is n (100%)					
Show Base: n =					

and thereby not adapting the height of the axis to the results. Finally, it is possible to choose not to show the base number, that is, how many responses are included in the chart.

Macro

Size Filter Statistics Layout Macro ▶	Macro kan vi her fortælle om muligheder og give links?
Run Excel Macro: Run Word Macro	

Text Lists

Add Data	Variables View, Edit, Export	Add Chart Add Combi Chart Add Many Charts	Add Table Add Combi Table Add Many Tables	Add Text List	Edit Selected Table/Chart/List	Significance	Layout	Provide the second s	Refresh Report	Remove Settings Data	 Register Help About
	Data	Charts	Tables	Lists	Editing	Statistics	Layout	Filtering	Update	Options	OfficeReports

OfficeReports offers a wide range of options when reporting text-variables making the reports of such variables easy and understandable.

- 1. Start by choosing the text variable to create text list from.
- 2. Optional add a filter to the list. Include for example only text for objects where the variable 'Courses' is registered as 'Bad' or 'Very bad'.
- 3. Check 'Print Variable Text' and 'Print Number of observations' if you want this information in the top of the list.

4. 'Print Text divided by the Categories of Variable:' this option divides the comments up into different groups using a variable. In our case we choose to divide the comments up by 'Gender'.

List Open Ended Variables	
Open Ended Variables to List	Filter 2 6 Courses Very bad Bad Average Good Very good No response
Options Image: Construction of the second state of the	Print Text divided by the Categories of Variable: 4 4 Gender Cancel QK

Below is the list as created in Word. The category dividing the results, the variable name, and the number of comments have been made bold and the page divided up into columns for presentational purposes.

Male	Smells	Don't know
Comments	Long line	Windy
Number of Open Answers: 51	Long line	Long line
Expensive	Long line	Hard to find products
Too many birds	No changing rooms	
Too many people	Female	
Bad service	Comments	
Bad quality	No changing rooms	
Loud	Expensive	
Boring, ugly	Bad quality	

Editing Tables, Charts and Text Lists



Editing the Content

To edit the content of a chart or table that created, click on it and thereafter click on the button `Edit Selected Table/Chart/List' as shown above in the ribbon. This will make it possible to change the primary or background variable, size etc. However, keep in mind that it is not possible to convert a table into a graph using this function. To make a table into a chart, or vice versa, a new table or chart needs to be created.

Editing the Design

To change the design of the table, chart, or list, simply double-click it. This will activate the Excel layout-options. These functions are explained on the Microsoft web-page at <u>office.com</u>.

To define general layout settings for the whole report, please see the specific layout-functions in OfficeReports in the section <u>Layout</u>.

Statistics

Here you can make basic settings for how you want your data processed regarding:



Once you make the basic settings regarding the statistical features you will be able to use these on both table and chart level, and for the entire report.

Benchmarking



When achieving a score of 3.7 on a 5-point scale, there is often a need to benchmark or compare the result with comparable organizations or units to decide whether the result is satisfactory.

In our example there are 19 golf clubs in 5 countries. If each club must have a report measuring customer satisfaction it might be useful to compare the result with all clubs in the same country and with all clubs in all countries. Office Reports have functionality that makes it easy to make this comparison in tables and graphs.

In this section we will review how to define the benchmarks and how they can be added on individual tables and charts. In the chapter <u>Filtering</u> we will review how this feature is used in an automation of the report production.



If we build a report for example, Ann Arbor Golf Club, so we basically have a filter on all tables and charts where we only look at data for this particular club. But if we add a comparison with all clubs in the U.S., so we must define all U.S. golf clubs in the survey as a benchmark

1. First, click `Benchmark´ in the ribbon menu and choose to `Add´ a new benchmark.

2	Give the benchmark a name. In our case we	Benchmark Definitions		
	choose USA since we would like to compare the results of a specific club to all of USA.			dd
3.	Then pick the variable upon with which the benchmark should be created, in our case `Country', and then pick the country that should be used as a benchmark, in our case `USA'		<u>ha</u>	lete
Bench	mark]		
na	me: USA		<u> </u>	
	3 Country	Ignore Filter 1		
	Argentina Denmark	Ignore Filter 3		
	England Spain			
	😿 USA	Ignore Table Filter		
		Cancel <u>D</u> K 5		
			4. In	

the table we will create a club filter will be applied so that we will only see the responses from the specific club of our interest, however, the benchmark should not be affected by this filter. Therefore, `Ignore Table Filter´ is chosen.

- 5. Finally, click ok.
- We create a table using `Courses' as our primary variable and `Gender' as our background variable.
- We then apply our benchmark and a filter. Click `Add table´ and add the benchmark

Contents Size Filte	er BM∕Weight	Layout 🌔 🕒
Add Benchmark Column		
USA		Add
7		Delete
 Weighting		
<none></none>		•

under the tab `BM/Weight'. We will also apply a filter so that only the results for one specific club are reported. Read more about filters in the sections: <u>General Table Functions</u> or <u>General Chart Functions</u>.

8. Below is the table with an applied filter and a benchmark, which is the column furthest to the left.

Courses								
		ISA	Te	otal	Fer	nale	M	ale
Very bad (1)	22	4%	4	4%	4	8%	0	0%
Bad (2)	68	1196	16	14%	6	1196	10	17%
Average (3)	112	1996	22	20%	9	17%	13	22%
Good (4)	206	34%	30	27%	12	23%	18	31%
Very go od (-)	185	31%	35	32%	21	40%	14	24%
No res pons e (-)	7	196	4	4%	1	2%	3	596
Total	600	100%	111	100%	53	100%	58	100%
Mean	3,36		3,08		2,94		3,20	

Significance



Quite often a data set does not cover an entire population, but a sample designed to describe the population. If the sample is small, there might be considerable uncertainty around the measured result.

OfficeReports can calculate a Confidence Interval for the percentage distributions in tables and the mean. The Confidence Interval tells you the level of precision you have in a survey sample. It assumes you have a truly random sample.

The Confidence Level states how sure you can be of the true percentage of the population that would choose to answer what lies within the confidence interval. Most researchers are 90%, 95% or 99% certain, of which 95% is the most

Significance Settings		
Population Size:	3	,000
(Leave zero if the pop	ulation is much la	rger than the sample size)
Confidence Level:	95% ▼ 90%	
	95% 99%	<u> </u>

commonly used. To conduct this calculation, you must choose a confidence interval (90%, 95% or 99%) and enter the population size.

For Sample Size, the larger the better, as a larger sample size will better reflect the population. Therefore, the larger the sample size the smaller the confidence interval for a given confidence level.

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The Population is the number in your group that the sample represents. If you do not know the size of the population do not worry because according to probability, a sample size of e.g. 1000 would be just as effective in determining the result for a population of anything from a few hundred thousand to several millions. Therefore you can ignore the population size when it is either very large or not known.

Tables including calculation of confidence interval are a feature in Tables

Weighting Data

Add Data	Variables View, Edit, Export	Add Chart Add Combi Chart Add Many Charts	Add Table Add Combi Table Add Many Tables	Add Text List	Edit Selected Table/Chart/List	Significance	Layout	P Report Filter Repetitive Reports Save As Report Template	Refresh Report	Remove Settings Data	 Register Help About
	Data	Charts	Tables	Lists	Editing	Statistics	Layout	Filtering	Update	Options	OfficeReports

The purpose of weighting data is to have the same distribution in a sample when it comes to certain socio-demographic variables as observed in the population. By weighting certain data in a variable is valued more than other data in the same variable.

OfficeReports can add weights to tables and charts in your reports. If the weights are not included in the dataset you are using OfficeReports can calculate the weight variables for you!

Remember that if the data is already weighted in the original data, there is no need to add weights. Simply follow the instructions given in the section: <u>General table settings</u> or <u>General chart</u> <u>functions</u>.

Below we see the proportion of men and women who responded to our survey. Suppose that we know for a fact that the proportion of women in the whole golf club population is actually 45%.

Sample		Popula	tion
Gender		Gender	
Female	35%	Female	45%
Male	65%	Male	55%
Total	100%	Total	100%

Since women are underrepresented in our sample, their responses need to be given a larger impact in order to avoid a biased result. Also, as seen below, the equal size of the country sample groups does not reflect the golf club population as a whole.

Sample

Population

Country		C	country	
Argentina	20%	Ar	rgentina	10%
Denmark	20%	D	enmark	5%
England	20%	E	ngland	30%
Spain	20%	S	pain	15%
USA	20%	U	JSA	40%
Total	100%	т	otal	100%

This means that we need to weight each of the country response groups differently as well. How do we do this?

If weight variables are not already a part of the data set the process begins by defining a new weight variable.

1. Click the `Weighting'-button in the ribbon and then click 'Insert'. As we want to weight for both country and gender we will name the new Weight variable `Country&Gender'.

<u>N</u> ame :	Country	y&Gender	
	V Neutr	al	
	TH <u>c</u> an		
		Cancel	ОК

Click 'Neutral' if you want a neutral weighting, which means that we retain the number of observations from the unweighted base. If you use an absolute weighting (the opposite of neutral) then you can make a weighting up to the absolute numbers in the population. Using this feature tables can be used as an absolute measure regarding a population even your data is based on a sample.

- 2. Click 'Insert Variable' and select the two variables 'Gender' and 'Country' which define our new Weight variable 'Country&Gender'.
- The default weight to each on the categories is a totally equal distribution on countries and genders. Mark each of the categories and 'Change Value' due to the distribution in the population.

Since we know that there are 45 % women and 55% men in our golf clubs, we will change the values of each to these specific numbers. Then we move on to countries and change their respective values



so that the proportion between the countries corresponds to our total population. The

effects that these weights have on our data are, for example, that the data from an American woman weights more heavily than the data from a Danish man. To see the logic in this we compare the size of the response groups in our sample, and the size of them in the population. In our sample women and Americans were underrepresented compared to their size in our population, while men and Danes were overrepresented. This is nothing personal, it is just statistics.

To see the effect of our weighting we will create a table with country as primary variable, and gender as background variable. Apply the weights under the `BM/Weight´-tab in the lower left corner in any `Add table/chart´ window as described in the section: <u>Creating tables</u>. We now choose the weight we just created in the drop-down menu 'Weighting' at the bottom of the window:

Weighting	
Country&Gender	▼

Weighted

Below are two tables showing the difference between a table with weighted data and one without.

Not Weighted

	<u>_</u>					_	
Country			Country				
	Female	Male	Total		Female	Male	Tota
Argentina	79	221	300	Argentina	127	473	60
Denmark	66	84	150	Denmark	223	377	60
England	323	577	900	England	178	422	60
Spain	216	234	450	Spain	246	354	60
USA	665	535	1200	USA	290	310	60
Total	1350	1650	3000	Total	1064	1936	300

Comparing these two tables we see that the size of each group is now different. Both the relative sizes of men and women, and the relative size of each country group have changed. The effect this will have is that the responses from the group that previously was quite big, for example Danish men, is now valued less. Likewise, the responses from a group that previously was small, American women, is now valued more. The logic behind why we want this is as explained before, American women were underrepresented in our sample, and hence we need to value their responses higher and vice versa for Danish men.

OBS.: Base in weighted tables will always be expressed as the unweighted base.

In OfficeReports it is possible to see the weight added to each observation/ record in the data set. To do this, create a variable and click the 'View, Edit, Export Data'-button in the ribbon menu. There it is possible to select the weight as a variable. Instruction on how to use the function can be found in our section: <u>View, Edit, Export data</u>.

For further information on weighting data we refer to the book by Grossman J., Grossman M., and Katz R.; <u>The First Systems of Weighted Differential and Integral Calculus.</u>

Layout settings



Depending on version OfficeReports offers features to layout tables, charts and reports. The layout can be changed by double-clicking any individual chart or table and by that activating the Excel layout-functions. However, there is a possibility to change the layout default with OfficeReports own layout-function. The functions described in this sections are all part of the OfficeReports layout-package which is available for purchase from our web-page <u>www.officereports.com</u>. This section will describe the following functions, all of which are included in our layout-package:

- General Defaults
 - 1. Word and PowerPoint defaults
 - 2. Table style
 - 3. Chart style
- This report
 - 1. Table/Chart styles
 - 2. Position and size

General Defaults

These settings define the defaults that are used every time OfficeReports is used. Note that they need to be defined before the data is imported, or else the template will not be used. In OfficeReports there are Word and PowerPoint templates, table templates and chart templates. The Word and PowerPoint templates change the layout of whole documents or presentations

respectively, while table and chart templates affect only tables and charts.

Keep in mind, whenever several people are working on the same presentation that the template is saved in a common location, for example in a network folder, so that everybody has access to it. This way there needs to be no duplication of efforts and time can be managed more effectively. This is important to mention since by default, any

Word Template:			
Powerpoint remplate.			<u> </u>
Table/Chart Styles			
Iable style: 2 Office F	?eports	•	
Chart style			
Frequency:		1	

template that is created and saved is saved under the local user folder, and hence not accessible to anyone else.

Table templates

The table template function in OfficeRepo	rts is found unde	r the `General Defaults'-tab by	click	king
the button to the right of the text field	Table stule:	Office Reports	-	
under `Table style', as seen to the right.	Table style:	Telephone and	_	

The table style that is already chosen is the default table style that is used in OfficeReports. It is the gray and ruby design used whenever a new table is created. By clicking the button to the right of the text field it is possible to either change this style, or create a completely new one. This allows for several table layouts that are easy to switch in between. After clicking the button the following window will appear.

Table Layout Definitions	Insert Change Delete	To change the defau OfficeReports default `Change'. To create `Insert'. If we choose click `Change' we ca how a table template OfficeReports.	ult s t sty nev the n s loc	style, high yle and c w styles s e default ee an ex oks in	nlight the lick simply clio style and ample of	ck I
Help	Copy Close	rts Arial Times New Roman	9	Bold Normal	Left A	Insert
As seen to the right, creating a table template is quite complex and to do this one needs to define and give attributes to every part of the chart by clicking the insert button and defining one part at	Vertical answer choices Percentages Counts Totals Mean Variance Deviation Top Table Border Bottom Table Border	Arial Arial Arial Arial Arial Arial Arial Continuous - Medium	9988888000	Normal Normal Italic Normal Bold Bold Itali Bold Bold	Cent Cent Cent Cent Cent Cent Cent Cent	<u>D</u> elete
a time. Below is an explanation on what different parts of the list define.						Close

Name: Office Reports	Courses		
	Very good (5)	515	17%
Horizontal question(s)	Good (4)	807	27%
Vertical question(s) Horizontal answer choices	Average (3)	668	22%
Vertical answer choices	Bad (2)	571	19%
Counts	Very bad (1)	335	11%
Totals	No response (-)	104	3%
Variance	Total	3000	100%
Deviation Top Table Border	Base	3000	
Rottom Table Rorder	Mean	3,21	
	Std. Deviation	1,27	

After double-clicking one of the table parts listed, in this example `Horizontal questions(s)´, the window to the right is shown. In this window it is possible to define various characteristics of the various table-parts. It is possible to change the font, size and style of the text, the background color in the table-cell, etc.

Below is an example where all parts of the table have been redefined and as a result the chart looks completely different.

Create a new template when OR is updated

orizontal question(s)		
Properties			-
Eont	Arial, 9, Bold	1	
Background		Decimals:	0 🛊
Justification: Lef	-	Angle: 0	2

Chart templates

Chart templates are created by using the Office-function `Save as Template´ in the top left corner that appears after double-clicking a chart. First, create the chart layout desired by using the built in design functions in Office. For instructions on how to use the Excel chart-layout functions please go to, <u>office.com</u>.

Then save the design as a template in a .crtx format using the `Save as Template'button in the top left corner. To use this template in the presentation click the button to the right of the either text-field under `Chart style' in the `Layout'-window as seen below and locate the .crtx file on the computer.

There are two types of charts that can be selected as defaults, `Frequency' and `Cross'. For the `Frequency' option choose the template that

Chart style		
Frequency:	C:\Users\Bruger1\Desktop\Frequency.crtx	
<u>C</u> ross:	C:\Users\Bruger1\Desktop\Cross.crtx	





should be used for charts with only a primary variable, for `Cross' pick a template that should be used for charts with a background variable.

Word or PowerPoint templates

Note that this kind of template will only be used if data is exported directly from a software program or service that is integrated with OfficeReports.

Word or PowerPoint templates are used when a specific design or layout is used in all presentations or documents. It can be a background image, a color scheme, or a specific font. For information on what a template is and how to create one, please visit the office.com homepage. Here information can be found on both Word templates (<u>office.com</u>) and PowerPoint templates (<u>office.com</u>).

After having downloaded or created a Word or PowerPoint template, click the button to the right of text-field as shown above, and locate the template on the computer or network.

This Report General Defaults	1
Word Template:	
Powerpoint Template:	

This Report

These settings will change the layout settings in the report currently open. The new settings will be used in all charts and tables created after changes have been made, it will not affect already created objects

1. Table and Chart Styles These settings change the layout of all tables or charts in the report. By choosing new table style or chart style all tables and charts in the report are altered after closing the window. The process of creating a tables style and chart style is described in the section <u>General</u> <u>Defaults</u>.

> 2. Placement of the Total Row and Column in a Table

These settings control where the column and row for total should be situated. Below are two pictures indicating what the effect of each option is. Choosing `row total first´

Th	is Report Gener	al Defaults	
C	Table/Chart Style	S Position/Size	
	<u>T</u> able style:	Office Reports	
	Chart style		
(1)	Erequency:	C:\Users\Bruger1\Desktop\OR standard.crtx	
	<u>C</u> ross:	C:\Users\Bruger1\Desktop\OR standard.crtx	
			Clear
2	col total first		
		Apply Changes to v	vhole Report
			Close

will move the `Total'-row up to the top, and choosing `col total first' will move the `Total column furthest to the left

col total first							
Country							
	Female	Male	Total				
Argentina	127	473	600				
Denmark	223	377	600				
England	178	422	600				
Spain	246	354	600				
USA	290	310	600				
Total	1064	1936	3000				

🔽 col total first					
Country	~				
•	Total	Female	Male		
Total	3000	1064	1936		
Argentina	600	127	473		
Denmark	600	223	377		
England	600	178	422		
Spain	600	246	354		
USA	600	290	310		

📝 row total first

Position and Size

The size and position options are found by clicking the `Layout'-button in the ribbon. The options are found under the tab `This Report'

1064

Total

1936

3000

and `Position/Size'.

 The size of the rows and columns in the table are chosen under the tab `Tables´. The first and second row, as well as the first column contains the data labels, and the row and column denoted `n´ are the ones containing the data itself.

	Layo	ut octango			100	
e rows and e table are the tab `Tal second row, st column lata labels, a olumn deno es containin	ted g the	nis Report G Table/Chart) Tables Heig Rov Rov Rov	eneral Def: Styles Po Charts ht v <u>1</u> : T v <u>n</u> :	aults sition/Size 23 \$ 18 \$ 18 \$	Width Col <u>1</u> : Col <u>n</u> :	30 ‡ 8 ‡
	Col 1:	row total f ✓ col total fi	irst rst Col n:		Apply Change	s to whole Report
Row 1:-	Country					
Row 2.		Female	Male	Total		
	Argentina	127	473	600		
	Denmark	223	377	600		
Row n:-	England	178	422	600		
	Spain	246	354	600		
	USA	290	310	600		

2. Under the `Charts' tab one can change where charts are to be placed when created. Setting the position indicators control where the upper left corner is situated. Therefore, if the chart placement fits well on the page depends on the chart size. To position charts higher up when they are created, decrease the `Top: ´ number, the lower the value, the

higher up it is placed. Likewise, to place it further down increase this number. To adjust the placement laterally, change the `Left´-value. A lower number will place the chart further to the left, and a higher number will place new charts further to the right. Below is an image of two charts created in PowerPoint with different placement settings, which are noted in the top left corner.

Position i	n PowerPoint	Size	
Тор:	100 🜻	Width:	490 🗘
Left:	100 🜩	Height:	340 🌲



Note that in the free version it is only possible to change the size and position of individual tables and charts, not the defaults.

Filtering

In this section we will present the following functions:

- 1. Report Filter
- 2. Repetitive Reports
- 3. Save as Report Template

Report Filter





When analyzing data we often look at data from different perspectives. For some purposes data cubes or Excel Pivot tables is the right tool for this. In other situations it is more appropriate to build a report and change filter settings for all tables and charts in the report.

In the former sections: <u>General Table Functions</u> and <u>General Chart Functions</u> we described how to add a filter to individual tables and charts. Now we will describe how a Report Filter effectively add a filter to the all tables and charts in just one process.

First make sure that your report includes a number of tables and charts. Now we will add a report filter so that the report only includes observations for one category in one of the variables.

Click 'Report Filter' in the OfficeReports ribbon.

- 1. Add a 'Filter 1' to the report. Select variable = 'Club'.
- Select the specific filter which might be one or many of categories. When selecting more than one category, please note that this is an 'OR' condition. In this example we only select one club = 'Ann Arbor Golf Club'.
- Click `OK'. OfficeReports will ask you to 'Refresh Report' to regenerate the report with the new Report Filter definition.
 When you refresh the whole report is now filtered so that in all existing and new tables and charts, only responses given by members of the Ann Arbor Golf Club are displayed.

As seen in the screenshot to the right, it is possible to have more than one filter. This is relevant if we would like to filter our responses even further. For example, we could choose to show only the responses

Define Report Filter	-	-
Filter 1 Filter 2 Filter 3		1
		<u> </u>
2 Ann Arbor Golf Club Buenos Aires Golf Club		
Copenhagen Golf Club		
El Saler Jefferson Park Golf Course Kalundborg Golf Club		
Las Brisas Liberty National Course		-
Select All Clear All		3
	Cancel	<u>0</u> k

given by 'men' from the Aarhus Golf Club. However, remember that by using the ability to create new variables, as explained in the section <u>Inserting a new Variable</u>, it is easy to define a specific filter derived from other variables. This option makes is possible to use many more than three variables as filters.

Repetitive Reports



Data covering many units as for example different Countries, Departments, Products, Periods etc. are often used for building many reports based on a template where exactly the same tables and charts are used repetitively per Country, Department, Product etc. The structure remains but data changes.

You can consider any report you build including tables and charts as a template. OfficeReports makes it is very easy to start a mass production of reports by automating the filtering of data.

Say you have built a report, and now you want to produce this report five times containing data from one single country at the time.

- Enter 'Repetitive Reports' in the ribbon and Select 'Country' as Variable 1.
- Since we would like to produce five reports, one for each country, containing only the information from that country, we simply choose `Country´ in the drop down menu and then click `Select All´. After doing this, we click `OK´.
- Office Reports is now ready to create five different reports, as a PowerPoint presentation or Word document. The filtered reports will be saved

Generate Reports
with each choosen category of variable2 combined with each choosen category of variable1 combined with each choosen category of variable2 combined with each choosen category of variable3. The combination will be the report filter of the generated report.
Variable 1 Variable 3 1
3 Country
Argentina Denmark England Spain
Select All Clear All
Save reports without data
Cancel <u>O</u> k

in the same folder as where the original report is saved.



- 4. In the top of the `Filter´-window select the option `Generate Reports using the categories of this variables as Filter´ as seen to the right. Further, it is possible to choose `Save without Data´ and `Save as PDF´. The ability to `Save without Data´ is a certain mode of saving reports that is further explained in the section <u>Save without Data</u>.
- 5. Choose the filter to apply. We can also use multiple filters when mass producing reports. This is done simply by applying a second filter under the tab `Filter 2'. For example, we can also choose to create reports for each individual club. We do this by applying a second filter using the variable `Club' and again choosing `Select all'. After clicking `OK' OfficeReports will produce one report for every single club. Having two filters will place these reports in



folders where the original report is located. So, in our example we now have five folders, each named after a country, containing a number of reports with data collected from a specific club. The structure will look like this with each country being a folder, and each club being a report:

- > Argentina
 - o Buenos Aires Golf Club
 - o Mar del Plata
 - o Olivos
- > Denmark
 - o Aarhus Golf Club
 - o Copenhagen Golf Club
 - o Kalundborg Golf Club
- ➢ Etc.

Of course it is possible to have a third filter when mass producing reports. This will make OfficeReports generate subfolders inside the folders so that the end result will be reports with three filters applied. Remember, since the reports are saved without data or as PDF files, all the charts and tables need to be created before mass producing the reports. After the reports are created it is not possible to create new charts or tables or edit the existing ones. To enable each recipient of the individualized reports to compare their results with an overall average, please see our section on <u>benchmarking</u>.

Repetitive Reports and Benchmarking

Benchmarking allows for the ability to compare two groups of responses. This can be useful when comparing one section of the responses to another section, or even the whole response group. In the words of our example: by allowing a club to compare their own results with a country benchmark, the club will be able to see its results in relation to the general results of the whole country.

9. First, click `Benchmark' in the ribbon menu and choose to `Add' a new benchmark.

 10. Give the benchmark a name. In our case we choose Denmark since we would like to compare the results of a specific club to all of Denmark. 11. Then pick the variable upon with which the benchmark should be created, in our case `Country', and then pick the country that should be used as a benchmark, in our case `Denmark' 	Benchmark Definitions	<u>A</u> dd <u>C</u> hange <u>D</u> elete
3 Country Argentina Denmark England Spain USA	Ignore Filter 1 Ignore Filter 2 Ignore Filter 3 Ignore Table Filter 4	
Help	<u>C</u> ancel <u>O</u> K	5

12. In the table we will create a club filter will be

applied so that we will only see the responses from the specific club of our interest, however, the benchmark should not be affected by this filter. Therefore, ` Ignore Table Filter' is chosen.

66



- 13. Finally, click ok.
- 14. We create a table using `Courses' as our primary variable and `Gender' as our background variable.
- 15. We then apply our benchmark and a filter. Click `Add table´ and add the benchmark under the tab `BM/Weight´. We will also apply a filter so that only the results for one specific club are reported. Read more about filters in the sections: <u>General Table Functions</u> or <u>General</u> <u>Chart Functions</u>.

Contents Size Filter BM/Weight Layout	₽ 0	Contents Size Filter BM/Weight Layout (
Club	,	Add Benchmark Column
	_	Denmark Add
🐼 Aarhus Golf Club	- A	
Ann Arbor Golf Club		<u>D</u> elete
Buenos Aires Golf Club		
Copenhagen Golf Club		
Cypress Point Club		
El Saler		Han Court Mainhte
Jefferson Park Golf Course		Use Lase weights
Kalundborg Golf Club	-	<none></none>
	· ·	

16. Below is the table with an applied filter and a benchmark, which is the column furthest to the left.

Courses								
	Denmark		Total		Female		Male	
Very good (5)	91	15%	37	17%	9	10%	28	21%
Good (4)	241	40%	88	39%	36	41%	52	39%
Average (3)	110	18%	37	17%	17	19%	20	15%
Bad (2)	56	9%	25	11%	7	8%	18	13%
Very bad (1)	54	9%	16	7%	7	8%	9	7%
No response (-)	48	8%	20	9%	12	14%	8	6%
Total	600	100%	223	100%	88	100%	135	100%
Mean	3,47		3,52		3,43		3,57	

We will now show how to do this procedure for all clubs automatically with only a few clicks. With the function <u>Mass produce filtered reports</u>-section, it is possible to create many individualized reports simply by defining filters. We will now show how to create an individualized report for each club, all of which contains a benchmark with their specific country.

- 1. To create such a benchmark, as before, start off by clicking `Benchmark´ in the ribbon and adding a benchmark.
- 2. Another window will open offering a number of options. First, the benchmark needs a name.

- 3. We then choose our benchmark variable. By choosing country as our benchmark we are aiming to make the country-variable the variable which is used as a comparison. Furthermore, by choosing all countries we create a benchmark that is applicable to all clubs. To make sure that each report only contains information regarding the specific country that it is located in, we move on to filters.
- 4. As is described in the section <u>Mass produce filtered reports</u>, to produce individualized reports, filters need to be defined. The first filter divides the results up into country segments and will be used in the benchmark. However, the second filter, which divides the results up into club segments needs to be ignored. If this filter is not ignored our benchmark will be filtered so that it only shows the results for one club. This is not what we want, hence we check the box next to `Ignore Filter 2´. So, first we choose to include all countries in the benchmark, and then we make sure that the benchmark is filtered by country in order for it to be adapted for each specific club.



5. When the benchmark is done, we click `OK'.

 Then apply the benchmark under the `BM/Weight´-tab in the `Add chart/table´window to any or all tables or charts. After applying the benchmark to the tables and

Con <u>t</u> ents Size	Filter	BM/Weight	Layout {
Add Benchmark Co	olumn		
country			<u>A</u> dd
			<u>D</u> elete
J			
Use case weights			
<none></none>			•



charts, we mass produce filtered reports as described in the section Mass Produce Filtered Reports.

7. The result will be one report for every club containing tables and charts with the country benchmark present showing the results for the specific country of interest to the club. Just like the one in the previous example.

(Might be double: The following is moved to Repetitive ReportsWe will now show how to do this procedure for all clubs automatically with only a few clicks. With the function <u>Repetitive Reports</u>-section, it is possible to create many individualized reports simply by defining filters. We will now show how to create an individualized report for each club, all of which contains a benchmark with their specific country.

- 1. To create such a benchmark, as before, start off by clicking `Benchmark´ in the ribbon and adding a benchmark.
- 2. Another window will open offering a number of options. First, the benchmark needs a name.
- 3. We then choose our benchmark variable. By choosing country as our benchmark we are aiming to make the country-variable the variable which is used as a comparison. Furthermore, by choosing all countries we create a benchmark that is applicable to all clubs. To make sure that each report only contains information regarding the specific country that it is located in, we move on to filters.
- 4. As is described in the section <u>Repetitive Reports</u>, to produce individualized reports, filters need to be defined. The first filter divides the results up into country segments and will be used in the benchmark. However, the second filter, which divides the results up into club segments needs to be ignored. If this filter is not ignored our benchmark will be filtered so that it only shows the results for one club. This is not what we want; hence we check the box next to `Ignore Filter 2'. So, first we choose to include all countries in the benchmark, and then we make sure that the benchmark is filtered by country in order for it to be adapted for each specific club.



enchmark		100	1000
name: USA			
3 Country Argentina Denmark England Spain USA		Ignore Filter 1 Ignore Filter 2 Ignore Filter 3 Ignore Table Fil	ter
Help	(<u>C</u> ancel	<u>0</u> K

- 5. When the benchmark is done, we click `OK'.
- Then apply the benchmark under the `BM/Weight'-tab in the `Add chart/table'window to any or all tables or charts. After applying the benchmark to the tables and charts, we mass produce filtered reports as described in the section <u>Repetitive Reports</u>.

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Add
<u>D</u> elete
•

7. The result will be one report for every club containing tables and charts with the country benchmark present showing the results for the specific country of interest to the club. Just like the one in the previous example.

Save as Report Template



Save as report template is a function included in the Productivity package that is available for purchase from our web-site http://www.officereports.com

Often a report maker will need to show the same kind of information, but for two different time frames. For example, there is a company that conducted a customer satisfaction survey in 2010. It is now 2011 and the company has conducted the exact same survey, that is, with the same questions and response options. To save time, it would be very beneficial to use the report that was made in 2010, but replace the data in the tables and charts with the data from 2011. With this function you can.

After creating the report with all the desired tables and charts, layout, and text boxes, it is possible to save it as a template by clicking `Save As Report Template'. The report will then be saved with the frames and structures of tables and charts and all other components, but without the data. That is, the tables and charts will become empty of data. Next year, this template should be used again, open the template file and click `Add Data'. After importing the new data, which has the exact same variables as the old data set, but with different results, all the charts and tables will be filled with the new data automatically and the report has been updated. Quick and easy.

For this function to work the new data set needs to have the exact same variables as the old one, that is, the variables need to have the same labels and be of the same format as the previous variables. If this is not the case OfficeReports will fail when trying to fit the new data into the old tables and charts. Find information on how to add data in the section: Importing data.

Refresh Report



When changing elements in data, variables, filter settings, weights etc. AFTER tables and chats has been added to a report, the report might need to be updated. This we do not do automatically as you might want to do several different changes before updating. Therefore we remind you with this message when you have changed critical element:



Remove Data from report




Save without data is a function included in the Productivity package that is available for purchase from our web-site <u>http://www.officereports.com</u>

Before distributing a report, consider whether the recipient should be able to edit tables and charts and even be able to look into the data behind the report. If the function `Save Without Data' is used, the reader cannot edit tables/charts and cannot look into the data behind the report. In a Word/PowerPoint-file without data all the text can be edited, but all tables/charts are fixed as pictures. Saving the report as a Word/PowerPoint-file is done by clicking `Save without Data' in the ribbon.

Furthermore, it is possible to save the report as a PDF-file. In a PDF-file the reader cannot edit text or tables/charts. This is done in Microsoft Office under File \rightarrow Save As \rightarrow and then choosing PDF as seen below.



Settings

Add Data	Variables View Ex	Q w, Edit, kport	Add Chart Add Combi Chart Add Many Charts	Add Table	Add Text List	Edit Selected Table/Chart/List	Significance	Layout	 ▼ Report Filter ■ Repetitive Reports ▲ Save As Report Template 	Refresh Report	Remove Data	Settings	 Register Help About
	Data		Charts	Tables	Lists	Editing	Statistics	Layout	Filtering	Update	Op	tions	OfficeReports

Appendix 1: The Formula Editor

Categorical Variables - How to reference categories

Categories are referenced by writing the variable name, a dot and then the category name and put this into []. For example [Gender.Male]

"!Observed" and "!Missing" can be used to reference all observations or all 'missing' observations for a variable:

[Gender.!Observedl] and [Gender.!Missing]

!HasValue can be used to reference all observations for a variable, where the observations has been given a value. For example:

[Reception.!HasValue]

[Variable.!Value]

Logical Operators

A logical operator compares two operands or expressions and produces a true or false condition. There are two types of logical operators: conditional and Boolean. Conditional operators compare two values or expressions. Boolean operators connect string, numeric, or logical expressions together to determine true-false logic. Operators may be combined to create complex operators.

Conditional Operators		Combined operators			
=	Equal sign	<>	Not equal		
<	Less than	~=	Not equal		
>	Greater than	NOT	Not equal		
		<=	Less than or equal to		
Boolean Op	erators	=<	Less than or equal to		
NOT	Boolean (logical) NOT	~>	Not greater than		
~	Tilde (logical NOT)	NOT>	Not greater than		
AND	Boolean AND	>=	Greater than or equal to		
OR	Boolean OR	~<	Not less than		
XOR	Booleand eXclusive OR	NOT<	Not less than		

During logical evaluation, any non-zero numeric value or non-blank string value indicates a true condition, and a null (blank) string or zero numeric value indicates a false condition.

Example:

Logical Expression Result

A = B True when A is equal to B

A < B True when A is less than B

A > B True when A is greater than B

A <> B, A ~= B, A NOT = B True when A is not equal to B

A ~< B, A >= B, A NOT < B True when A is not less than B

A ~> B, A <= B, A NOT > B True when A is not greater than B

~ A, NOT A True when A is null or zero

A AND B True when A is true and B is true

A OR B True when A is true, or B is true, or both are true

A XOR B True when A is true or B is true, but not both.

Numerical Variables

These are referenced by the variable name. For example: [Age]

[Variable.!Observedl] is =1 when true, and =0 when false

[Variable.!Missing] is =1 when true, and =0 when false

[Variable.!HasValue] is =1 when true, and =0 when false

[Variable.!Value] is =Value added to a Category

Arithmetic operators

An arithmetic operator combines two operands arithmetically to produce an intermediate value. The operators are:

- + Addition (A + B gives the sum of A and B)
- Subtraction (A B gives the difference of A and B)
- * Multiplication (A * B multiples A by B)
- / Division (A / B divides A by B)

- ^ Exponentiation (A ^ B raises A to power of B)
- % Modulus Division (A % B gives the remainder of A divided by B)

Functions

Trigonometric functions: sin(x), cos(x), tan(x), asin(x), acos(x), atan(x)

abs(x) – absolute value

sqrt(x) - square root

Logarithmic functions: loge(x), log10(x)

RANDOM(low,high)

ROUND(expression,order)

ROUND Returns rounded value.

expression A numeric constant, variable, or expression.

Order A numeric expression with a value equal to a power of ten, such as 1, 10, 100, 0.1, 0.001, etc. If the value is not an even power of ten, the next lowest power is used; 0.55 will use 0.1 and 155 will use 100.

The ROUND procedure returns the value of an expression rounded to a power of ten. If the order is a LONG or DECIMAL Base Type, then rounding is performed as a BCD operation. Note that if you want to round a real number larger than 1^{3°}, you should use ROUND(num,1.0e°), and not ROUND(num,1). The ROUND procedure is very efficient ("cheap") as a BCD operation and should be used to compare REALs to DECIMALs at decimal width.

Return Data Type: DECIMAL or REAL

Example:

ROUND(5163,100) returns 5200

ROUND(657.50,1) returns 658

ROUND(51.63594,.01) returns 51.64

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Appendix 2: Installing OfficeReports

The easiest way to install OfficeReports is simply by double-clicking the .exe file downloaded from <u>www.officereports.com</u>. The ribbon should now contain a new tab called `OfficeReports'. If there is no new tab, make sure that the new add-in is activated. This is done under: File \rightarrow Options \rightarrow Add-ins \rightarrow Go.. and then make sure the box to the left of `ORAddin' is checked.

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Technical Requirements

The requirements for running OfficeReports are:

- Windows XP, Vista, 7 (32 bit or 64 bit version)
- Office 2007 or 2010 32 bit version
- File formats accepted: .xls .xlsx .csv .sss
- Administrator rights

Uninstalling OfficeReports

To uninstall OfficeReports go to the `Windows Control Panel'. Click `Programs and Features' which will show a list of all the programs installed on the computer. Locate OfficeReports in that list and click `Uninstall'. Remember that Word, PowerPoint and Excel need to be closed for this procedure to be successful.

Appendix 3: Let your software report data directly in Word and PowerPoint.

OfficeReports offers you an API or connection which makes it easy to report data registered in your software or service, directly in Word or PowerPoint. Let your export data an app is a connection which makes it possible to exchange data from a software or service which collects data and OfficeReports.

The OfficeRepoarts API makes it possible to integrate other systems with OfficeReports . The API is an interface between OfficeReports and other systems. Through the API other systems can easily export data directly into Word or PowerPoint based OfficeReports.

The API is based on web services using SOAP 1.2 which is supported by all modern programming languages and development tools. Furthermore, we provide a special assembly for .NET developers making it even more elegant to integrate other systems with e-conomic. We call this assembly the OfficeReports *.NET API*.

As shown in the flowchart below it is possible to communicate with the OfficeReports API in two ways: skriv videre ud fra <u>http://www.e-conomic.dk/apps/info</u>

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Appendix 4: Different versions of OfficeReports/Extra modules

The basic version of OfficeReports is free and contains the most used functions in analysis and reporting. However, for more advanced functions OfficeReports offers the possibility to buy any of our three packages.

- Layout package: Charts and tables in the free version are automatically made with the OfficeReports default layout. In order to be able to control how your reports look and give them a specific style, we offer the layout package. This package will remove the OR-logo and let the user define a default layout on all charts and tables.
- Productivity package: This package enables saving reports as templates, saving reports without data, filtering and weighing all charts in a report, creating many charts or tables at once.
- Mass production package: This package enables you to produce a large amount of individually customized reports.

You can read more about these packages on our website: www.officereports.com .

Extra modules (alternativ formulering

Layout

Reports are produced in an elegant OfficeReports layout. However If you need to customize this layout you can add an additional Layout module to your OfficeReports and design your own standard for reports, tables and charts.

Productivity

Do your reports contain many tables and charts? Are they based on more than one set of data? Or – do you often need a weighting of data in your reports? If so, take a look at the OfficeReports Productivity module, which will make you more efficient and make your production of reports faster.

Filtering

Are you building standardized reports based on different data sets? It might be standard reports produced every month, reports mass produced per product, country, division, department etc. Or simply reports where you want to take a look at specific segments through a filter added to all tables and charts in your report. The Filtering module gains an enormous productivity to all these situations.

Learn more about these powerful modules on www.officereports.com or add OfficeReports to your Microsoft Office and get a 14 days trial period for the extra modules.