# Ausbildungs-Skripte für IT Seminare und EDV Schulungen als Word-Dokument

Aus technischen Gründen wurde in dieser

Musterunterlage dieses Deckblatt zusätzlich eingefügt,
und anders als im Original-Worddokument haben wir
das Inhaltsverzeichnis am Ende platziert.

Darüber hinaus entsprechen hier auch die Kopf- und
Fußzeilen nicht dem Original.



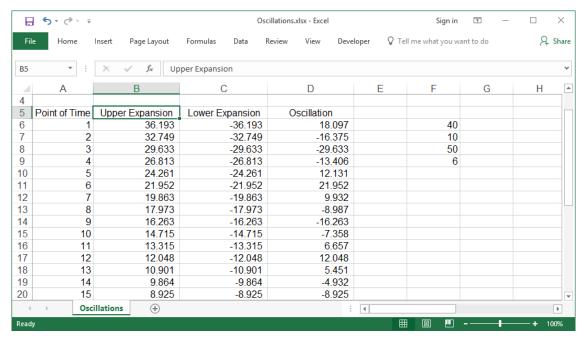
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# 15 Line Chart

On a new slide, the damped oscillation of a car suspension is to be displayed in a line chart. If you have minimized the ribbon, as in the previous picture, double-click the **Home** tab. Create a new slide with the **Title Only** layout.

### 15.1 Opening Excel

Open the Excel program to begin with. Next open the **Oscillations.xlsx** file in Excel. You could also start the program and open the file at the same time by double-clicking the file name in your file explorer:



Excel spreadsheet

Place the cell cursor on cell **B5** (on the entry **Upper Expansion**, *not* on A5!), and select the range

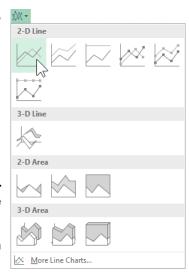
B5:D35.



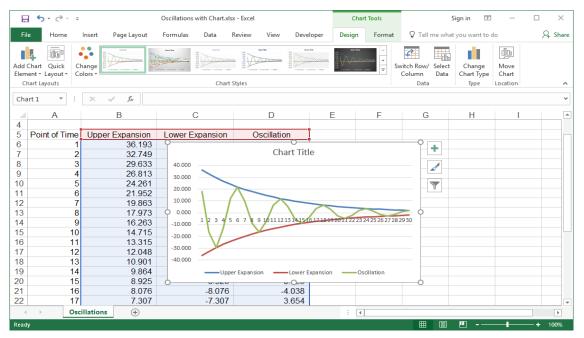
Charts group on the Insert tab

Now click the **Insert** tab, and in the **Charts** group, click the **Insert Line or Area Chart** button. Select the first design in the gallery.

The inserted chart partially covers the sheet. Save the file with the name **Oscillation with Chart**.



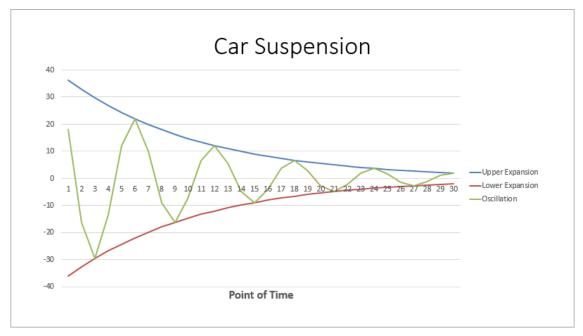
Line chart gallery



The new chart in Excel

### 15.2 Exercise

- 1. Copy the selected chart to the clipboard again (page 40).
- 2. Switch to the PowerPoint program (page 33), but do not close the Excel window.
- Insert the chart on the new slide at the end of the presentation with a link to the data in the Excel file Oscillations with Chart.xlsx, as described on page 94. The appearance of the chart will once again be handled in PowerPoint.
- 4. Make the chart bigger, as described on page 83.
- 5. Change the number format of the vertical value (y) axis: **Number** with **0 Decimal places** category.
- 6. Increase the font size of the x-axis, the y-axis, and the legend to 14 pt.
- 7. As a slide title (Click to add title...), enter: Car Suspension
- 8. Center the slide title.
- 9. Delete the *chart title*, e.g. using the Del key.
- 10. The legend is to be displayed on the right.
- 11. Provide **Point of Time** as the **axis title** under the horizontal primary axis. Change the font size to 20 pt. and the font style to bold.
- 12. If the legend or axis title extend too far into the chart, change the size of the plot area (page 82).
- 13. Save the presentation without changing the name.



The linked chart in PowerPoint

# 15.3 Changing the intersection point of the horizontal (x) axis

- To arrange the horizontal category (x) axis on the lower border, right-click the vertical value (y) axis and select the **Format Axis** command from the context menu.
- 2. In the task pane shown on the right, select **Axis Options** and enter:

Horizontal axis crosses:

- Axis Value: -40
- Decrease the size of the plot area, if the axis title and the x-axis overlap.
- Close x the task pane.

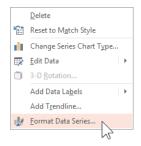
# 15.4 Formatting lines

Here is how to change the format of the three lines in the chart:

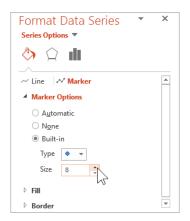
- 1. Right-click the first, top line, the so-called upper expansion.
- In the context menu, select Format Data Series. If the task pane is still open, it automatically switches from e.g. Format Axis to Format Data Series.
- In the task pane, in the Marker Options (Fill & Line \$\infty\$, Marker), activate the Built-in marker. Change the type to and the size to 8.



Changing the intersection point of the category (x) axis

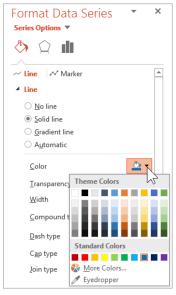


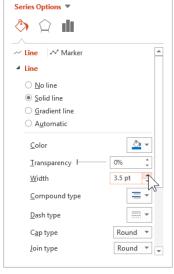
Context menu



Adding a marker to the line

Switch to Line, and give the line a richer color and a greater thickness.





Format Data Series

Line Color

Line Style

- 5. Also format the other two lines by selecting them while the task pane is open.
- 6. You can also change the color of the markers (Fill, Border).
- 7. Save the presentation without changing the name.

# 15.5 Making the PowerPoint and Excel program windows smaller

Drag the program windows and make them smaller so that the PowerPoint window takes up approximately two-thirds of the screen, and the Excel window takes up the remaining third. To do this, you can click the **Restore Down** icon  $\square$  in the upper-right corner of a program window. While holding down the left mouse button, drag a window border to the desired size. You might have to move the chart down in Excel so that the **F9** cell is visible.

You could also try out the **snap** feature to modify the size of the window: Drag the title bar of the Excel window to the *left* edge of your screen. When the two mouse pointer (no double-headed arrow!) touches the left or right *edge* of the screen, a blue circle appears shortly next to the mouse pointer and the new size of the window is indicated by a frame in the background. After releasing the left mouse button, the window is resized and positioned exactly on the left or right *half* of the screen.

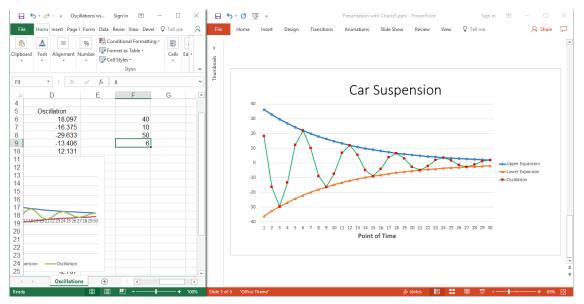


Circle next to the mouse pointer when snapping

The other half of the screen displays all other open programs, which can be attached to that half of the screen with a single click on their thumbnail image. Now, you should reduce the width of the left window with the mouse and increase the size of the right window appropriately. Dragging the title bar downward reinstates the original size and ends the snapping.

# 15.6 Changing data in the Excel sheet

Click cell **F9** in the Excel sheet. Change the value, e.g. to 20 or 40. You should see the change in the chart immediately.



Two windows with a link

If the oscillation curve dosesn't change in PowerPoint after you press the <code>Enter</code> key in Excel, update as described on page 94. Or with the chart selected in the PowerPoint window, click the button shown on the right on the **Design** tab (**Chart Tools**) in the **Data** group.



### 16 XY Scatter Chart

Up to now, you have always read the position of a data point in a chart, e.g. the height of a column, on the **y-axis**. If you want to create a connection between two numbers, you can carry it out in an **XY Scatter Chart**.

For this, you will also need numerical values for the **x-axis**. A descriptive example is the connection between body size (y-axis) and age (x-axis) in children. Everyone knows that the older the child is, the bigger it gets.

Next we will use an example from a lab report. Insert a new slide at the end of the presentation with the **Title Only** layout.

Experience shows that people mostly use data that already exists when creating a chart. For this reason, open the file **Thin.xlsx** in Excel. You could also open the file by double-clicking the file name in the file explorer.

Place the cell cursor on cell **A10**, and select the range

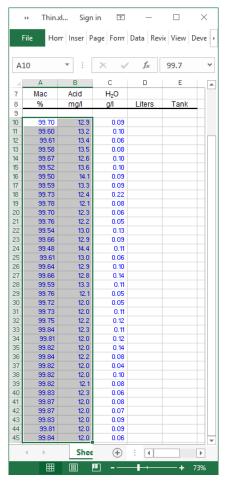
### A10:B45.



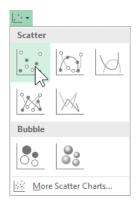
Charts group on the Insert tab

Now, on the **Insert** tab, in the **Charts** group, click the **Insert Scatter (XY) or Bubble Chart** button. Select the first design in the gallery.

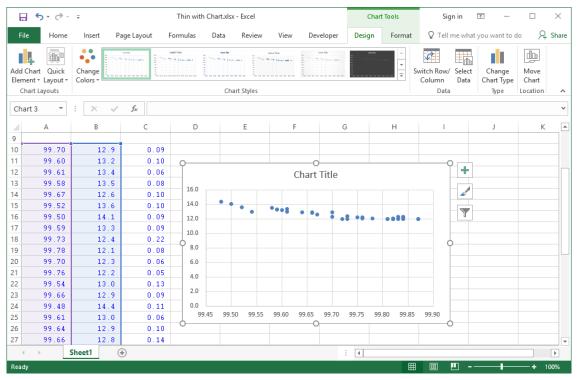
Save the file with the name Thin with Chart.



Excel spreadsheet Thin.xlsx



Selecting the XY scatter chart



The XY scatter chart in Excel

### 16.1 Exercises

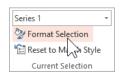
- 1. Copy the selected chart to the clipboard again (page 40).
- 2. Switch to the PowerPoint program (page 33).
- 3. Insert the chart on the new slide at the end of the presentation with a link to the data in the Excel file Thin with Chart.xlsx, as described on page 94. The appearance of the chart will once again be handled in PowerPoint!
- 4. Delete the chart title and change the font size of the y- and x-axis to 16 pt.
- Right-click the y-axis, and select the Format Axis command. Enter the following Axis Options into the task pane on the right:

Minimum: 11.5 Maximum: 15.0

- 6. Save the presentation after each work step without changing the name.
- 7. Enlarge the chart as described on page 83.
- If the data points are connected with lines, please turn the lines off: On the Format tab (Chart Tools), in the Current Selection group on the left, select Series1 from the Chart Elements list box (page 78).
- 9. Click the **Format Selection** button under this list box. The task pane switches to **Format Data Series**. Set the **No Line** option:



Changing the scale

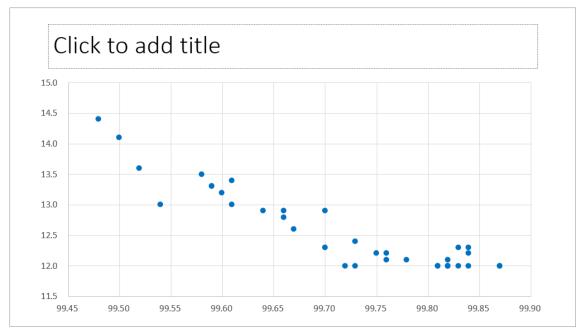


Current Selection group



Data marker points without lines

10. Increase the size of the markers and select a darker color (page 100).

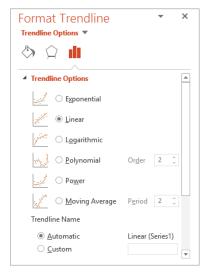


The linked chart in PowerPoint

### 16.2 Trendline

It is often necessary for an XY scatter chart to display a trend graphically. To do this, rightclick a data point in the chart and select the **Add Trendline** command from the context menu. Select the linear type.

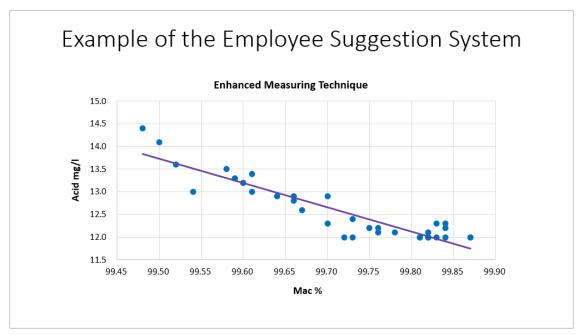
To add a trendline, you can also point to **Trendline** on the menu of the **Chart Elements** context icon (page 82), click the ▶ arrow and, for example, select the **Linear** option from the submenu. Then, open the **Format Trendline** task pane, for example by double-clicking the trendline.



Creating a trend line

### 16.3 Exercises

- Select a darker color and greater thickness for the trendline (Format Trendline task pane, Fill & Line category).
- 2. Add different titles to the XY scatter chart and the slide, as seen in the screenshot below.
- 3. Choose an appropriate font size for the different titles.
- 4. Save the presentation with the name Presentation with Charts6



The finished XY scatter chart

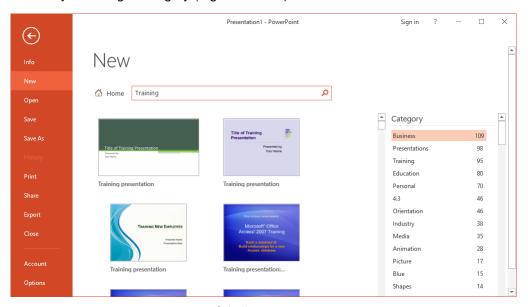
# 4 The First Presentation

# 4.1 A new presentation

File

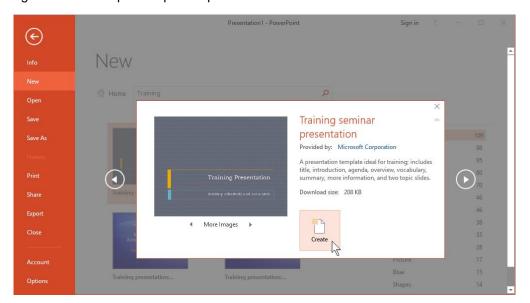
When you want to create a new presentation, call up: **File** menu, **New**. The **New** page appears with the available templates for creating professional presentations quickly and easily.

If you want to create a new document based on a template, open the **New** page of the **File** menu, enter a search term (e.g. **Training**) into the search box in the middle section of the window, and click the  $\rho$  icon. On the right-hand side of the window, you can further narrow down your search by selecting a category (e.g. **Business**) with a mouse click.



Selecting a category

Clicking one of the templates opens a preview window:



Selecting a template

In the preview window, you can scroll through the selected category with the help of the arrows and or use the More Images arrows to view the individual slides of a template. Choose

**Training seminar presentation** and click the **Create** button. If this template isn't available, you can choose another one. When selecting this sample template, we made sure that the presentation has a light background (with the exception of the title slide), because it is particularly suitable for paper printouts. On the other hand, a dark background may very well be used for a slide show.

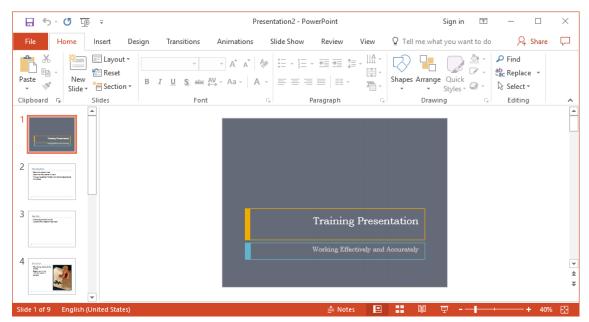
Now, you see your newly created presentation in Normal view.



When you press the <code>Ctrl+N</code> key combination, the **New** page does *not* appear. This corresponds to the previously described menu path **File** menu, **New**, **Blank presentation**. It will use a standard design. You can then change the design (page 25).

If several presentations are open, switch between them using the **Switch Windows** button on the **View** tab in the **Window** group or the <code>Strg+F6</code> keyboard shortcut. If you don't need one of the open presentations anymore, you should close it, for instance via **File** menu, **Close**.

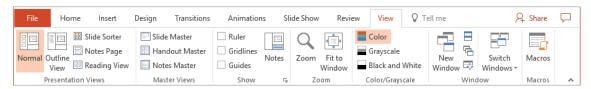
A template with contents has been chosen for the example in this training document. Many pages are thus immediately available for **slide sorting** and for a **slide show**. You can also select a template without contents, however.



Normal view with the slide thumbnails on the left

### 4.2 The views

Please click the View tab. The Presentation Views group offers you various views:



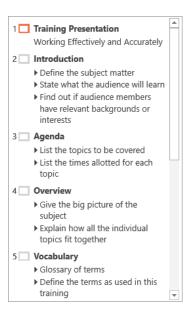
View tab

### Normal view

You create your presentations in **Normal** view. This view consists of two to three sections: thumbnail pane, slide view and maybe a section for your speaker notes at the bottom. In the large, right part of the window, you see the current page (slide), in the left part the thumbnails of the individual slides.

### **Outline view**

Outline view comprises the current slide in the right part of the window and the outline in the thumbnail pane on the left. The outline is intended for editing the text. Here, you see the text of several slides on the screen. In Normal view, you can also switch between slide thumbnails and Outline view by clicking the view icon on the status bar.



Outline view



Minimizing the thumbnail pane

You can change the space that the individual sections take up in Normal view. Point the mouse to the vertical line between the area with the outline or slide thumbnails (thumbnail pane) and the area which shows the slides. The mouse pointer changes into this shape: \( \iffty \). To reposition the line, drag it while holding down the left mouse button.

When you move the mouse pointer all the way to the left edge of the window, the area with the thumbnail pane is minimized. To restore it in Normal view, click the  $\triangleright$  icon at the top edge of the pane; the pane is initially depicted rather narrowly and usually has to be widened with the mouse.

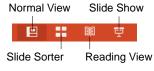
It is also possible that the Notes area automatically opens below the current slide:



Status bar (cut-out) and Notes area

The Notes area can be closed by dragging the horizontal separation line between the Notes section and the current slide downward with the mouse  $\hat{\downarrow}$  or by clicking the horizontal separation line between the Notes section and the current slide downward with the mouse  $\hat{\downarrow}$  or by clicking the button on the status bar.

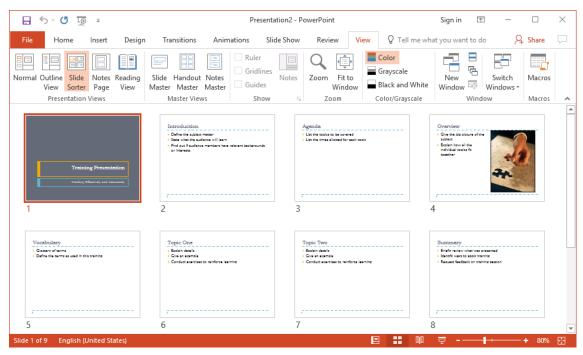
Switch views on the **View** tab in the **Presentation Views** group or using the icons on the status bar below:



The View icons on the status bar

### Slide Sorter view

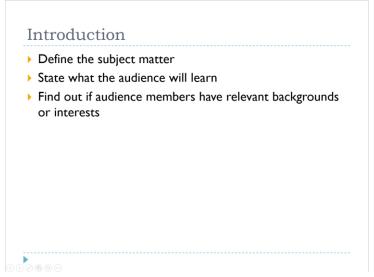
In this view, the individual pages of a presentation are shown in a minimized form. You can adjust the order of the slides with the mouse and determine the features for a screen presentation.



Slide Sorter view

### Slide Show

Here you can see your presentation in a sort of print preview. But the possibilities go far beyond that. The slide takes up the whole screen. It is not possible to edit in this view.

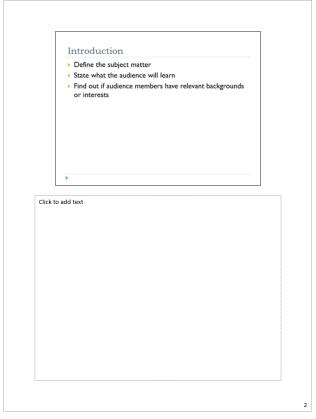


Slide 2 in Slide Show view

### **Notes Page view**

In Notes Page view, every slide is shown on a separate page with a text box underneath for additional notes. To enter notes, click in the area below the slide that reads

### Click to add text:



Notes Page view

To exit text input mode, simply click the mouse outside the text box, or press the  $\[ \]$  key. To change the text, click it. If the text is selected as the current element, you can also press the  $\[ \]$  key and then edit the text.

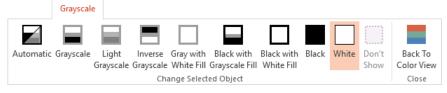
### Color/Grayscale view

Printouts are often made on a black-and-white printer. You can see what this will look like on your screen by clicking the **Grayscale** icon on the **View** tab.



You can select various views using the **Grayscale** tab that now appears on the ribbon:

On the View tab



Grayscale tab

You can return to Color view by clicking the icon shown to the right.



# Widescreen format

Already in the 2013 version, PowerPoint took the increased use of widescreen monitors into account and offered the 16:9 widescreen format as a default standard in addition to the classic 4:3 format. You can change the format using the **Slide Size** button on the **Design** tab in the **Customize** group.



### 4.3 Moving in the presentation

In Normal view and Slide Sorter view, the current page number is shown on the status bar, bottom left, e.g. **Slide 1 of 9**. Scroll between the pages with either the keyboard or the mouse:

### With the keyboard:

Pg Down scrolls to the next slide (page)

Pg Up scrolls to the previous slide

The Ctrl + Home key combination goes to the beginning of the presentation

The [Ctrl]+[End] key combination goes to the end of the presentation.



If you use the cursor movement keys, e.g.  $\rightarrow$ , Pos1, End, PgDown in the numeric keypad, the NumLock must be switched off. In this case, the NumLock light above the keypad is *off*. To switch, press the NumLock key (Num $\diamondsuit$ ) in the numeric keypad. There may be differences for laptops.

### With the mouse:

You can use the arrow icons on the bottom right-hand side of the scroll bar to scroll through the slides.



The IntelliMouse with the scroll wheel offers another option for scrolling and zooming:

### Scrolling with the wheel mouse

With the IntelliMouse, also known as wheel mouse, there is a little wheel between the two mouse buttons. This allows you to scroll quickly through large presentations. Place the mouse pointer inside the presentation and turn the wheel. You scroll up or down depending on which direction you turn the wheel. Using the wheel mouse does not work in Slide Sorter view.

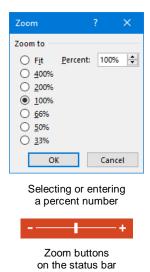
# 4.4 Zooming

You can also use the IntelliMouse to zoom your presentation between 10% and 400%: point the mouse to the text, press and hold the <a href="Ctrl">Ctrl</a> key, and turn the wheel.

You can also make the view larger and smaller without using a mouse wheel:



- Click the percentage in the bottom right of the status bar, and choose the new size from the **Zoom** dialog box ●, or enter a value in the **Percent** number box.
  - In Fit zoom mode, the slide will completely fill the file window. You can also adjust the size by using Fit slide to current window button on the right margin of the status bar. In this case, the zoom size is always dependent on the size of the window. Close the dialog box by clicking ok.
- Or you can zoom the view by using the slider while holding down the left mouse button, or clicking the plus and minus buttons on the status bar.



### 4.5 Slide theme

To make it easier to create presentations and make a standard design for each slide, a slide theme is fixed for every presentation. This way, you don't need to create a new background for

every page, choose new formatting or select the color. These things are already included in the layout.

The PowerPoint program comes with a number of preset slide theme files, to give your presentation a professional appearance. You can see the name of the current theme file on the status bar on the bottom of the screen (see page 158: right-click on the status bar,  $\checkmark$  Theme).



New since the release of PowerPoint 2013 is that different variants of the individual designs are now available, which differ from each other in their color scheme.

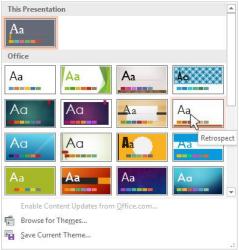
### Live preview

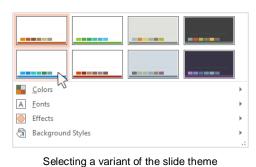
To make changes, click the **Design** tab, then the **More** icon **▼** in the **Themes** group. This will give you an overview of theme templates:



Calling up the gallery

The gallery of theme templates appears. Point to a theme with the mouse. The name of the theme file appears as a ScreenTip (here: Retrospect). This will also show you the new theme as a live preview in the background. You change the theme of the current presentation by clicking the thumbnail. If you don't want to apply the theme to every slide, select the slides you do want to change in advance. In the same way, you can open the **Variants** gallery (**Design** tab, **Variants** group) and select a variant of the theme.





Coloding a variant of the shae theme

Selecting a slide theme

You can select a color scheme and animation scheme in the same way.

### Office theme

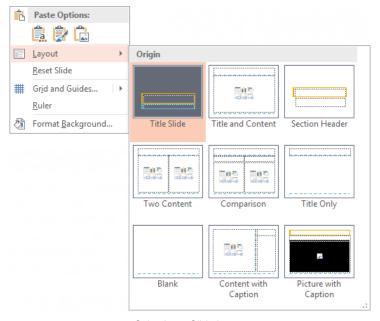
PowerPoint isn't the only place you can use a slide theme; you can also apply it as an **Office theme** with the file extension \*.thmx in Excel, Word and Outlook. This allows a company or government agency to give a standard appearance to all their Office documents.

### 4.6 Exercise

- 1. Assign different slide themes to the current presentation, and observe the different appearances on the screen.
- 2. Then select a theme template of your own choice.

# 4.7 Slide layout

PowerPoint doesn't just make it easy to work with the external appearance; it also helps you in the creation of the title page and charts, texts and tables. Every presentation has various **slide layouts**. Right-click outside a text area to open the context menu and select the **Layout** command. You will get various formats to choose from. However, you also get the slide layouts via the submenu of the **Layout** button on the **Home** tab (**Slides** group).



Selecting a Slide layout

In our presentation, the first page has the layout named **Title Slide**, while the other pages have the **Title and Content** and **Two Content** (slide 4) layouts. Practice will show you that these slide layouts make it easier for you to create a great presentation in a short amount of time.



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