

User Manual

English



Reporter Option Perception

Document version 2.0 - June 2012

For Perception 6.22 or higher

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1 Reporter Option

1.1 Introduction

With intuitive layout and graphical tools, the Perception Reporter is not only a better choice for report generation, it's a superior way to work. Tightly integrated with the Perception software, the WYSIWYG Reporter delivers professional designed reports and provides a natural work flow within your test environment. Data and results naturally stream into the report without copying or loading.

The Reporter includes tools for text, headers and footers, drawings, tables, images and displays. Each with a range of background and border options.

Include data in your report ranging from recorded waveforms, detailed waveforms to calculated results and system settings. It all updates in a single click.

Apart from the Report sheet that becomes available in the Reporter option, the Report to Word feature is also installed.

As where the standard Quick Report always creates a new empty document and places the objects underneath each other, the Report to Word option makes it possible to place Perception objects at predefined locations in a template. By doing this a Word report can be generated test after test with exactly the same layout.

1.1.1 How to install the Reporter option

The Perception software requires a HASP key. HASP (Hardware Against Software Piracy) is a hardware-based (hardware key) software copy protection system that prevents unauthorized use of software applications.

Each HASP key contains a unique ID number used for personalization of the application according to the features and options purchased. The key is also used for storing licensing parameters, applications and customer-specific data. If you have purchased the Reporter option as a separate item, you will receive a personalized "key file". Use this file to unlock the additional features.

You can find the serial number of your key in **Help ▸ About Perception**

To update the key information:

- 1 Choose **Help ▸ Update Key...**
- 2 In the Open dialog locate the Key File (*.pKey) and click **Open**.
- 3 If everything is OK you will see the following message:



Figure 1.1: Software copy protection dialog

4 Click **OK**.

After the installation you can go to **Help** ▶ **About Perception** ▶ **More...** to see all installed options.

You will need to restart the program before the changes take effect. The Reporter option is now available.

1.1.2 Reporter work area

The Reporter work area is laid out as follows.

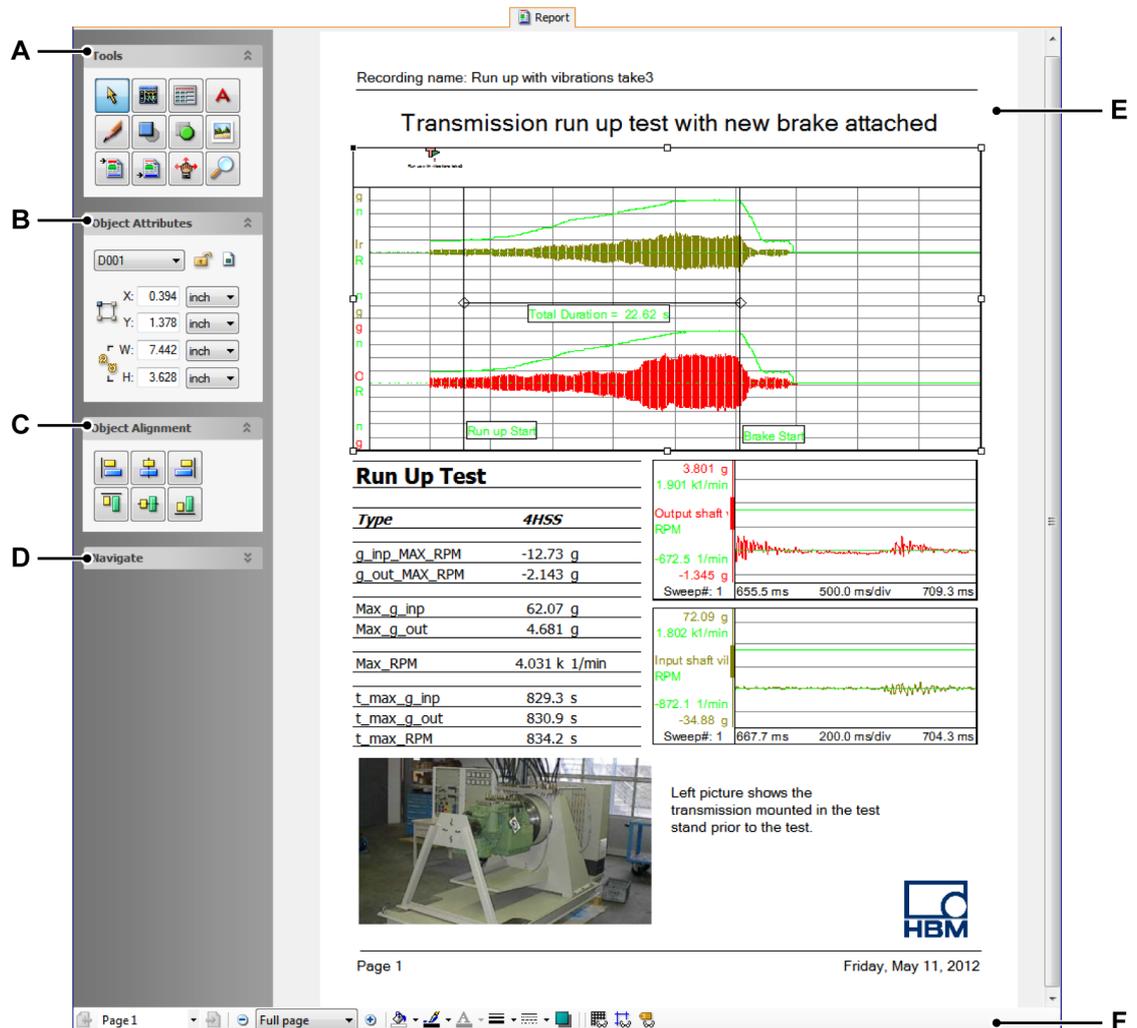


Figure 1.2: Reporter work area

- A** Tools for the creation of design elements and objects.
- B** Attributes of selected item.
- C** Alignment allows you to align selected objects with respect to each other.
- D** Navigator to quickly change the view of your artwork using a thumbnail display.
- E** Document work area
- F** Bottom toolbar

In addition to the tools provided in the reporter work area, there is also a related menu in the menu bar when the reporter sheet is active, called "Report", as well as an additional toolbar in the top toolbar area.

1.2 Object manipulation

The Tools palette comprises the tools to build the layout of a report.



You can use these tools to create your layout. You can also use the keyboard accelerator to access the tool. Each tool has its own type of cursor.

You select a tool to insert and manipulate objects.

1.2.1 Insert an object

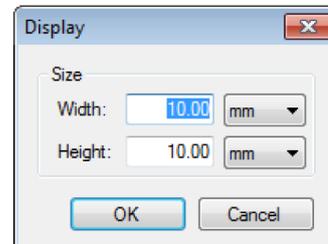
There are two ways to insert an object:

- with the tool selected, click in the page area
- with the tool selected, click and drag in the page area

To insert an object with a single click:

- 1 Select the tool of the object that you want to insert. When you hover with the mouse over the page area, the cursor shape will change to reflect the selected tool. Usually the intersection of the two hairlines defines the 'hot spot'.
- 2 In the page area position the hot spot in the upper left corner of where you want the object to come. Click and release the mouse button.

- 3 A measurement dialog comes up that allows you to specify the size of the object.



- 4 Make the required modifications.
- 5 Click **OK** to accept. Click **Cancel** to create a 10x10mm default placeholder.
- 6 Now the related properties dialog will come up.

To insert an object with dragging:

- 1 Select the tool of the object that you want to insert. When you hover with the mouse over the page area, the cursor shape will change to reflect the selected tool. Usually the intersection of the two hairlines defines the 'hot spot'.
- 2 In the page area position the hot spot in the upper left corner of where you want the object to come. Drag the mouse to define the object area.
- 3 Now the related properties dialog will come up.

You can make the required modifications in the related properties dialogs as explained later in this section.

Note that headers and footers have a fixed location.

1.2.2 Select an object

To select an object:

- Select the Pointer / Selector tool and click on the desired object. Now you can:
 - Click and drag the object into another position
 - Right-click to access the context sensitive menu of the object
 - Double-click the object to call up the related Properties dialog

1.2.3 Select multiple objects

You can select multiple objects, for example to move them or to align them.

To select multiple objects:

- Select the Pointer / Selector tool and do one of the following:
 - Click and drag a bounding box around the objects to select. The bounding box may partially overlap an object to include it.
 - Hold down SHIFT and click the desired objects. The object that is last added to the selection is the 'reference' object.

1.2.4 Move an object

When an object is not locked you can move the object to any position on the page area.

To move a object:

- 1 When you hover with the mouse over an object, the mouse cursor changes to indicate that you can move the object.
- 2 Click on the object that you want to move.
- 3 Drag the selection to the new location on the work area. When Snap to grid is on, the object will snap to fixed positions. When Snap to grid is off, you can also hold down the SHIFT key while dragging to snap to the grid temporarily.
- 4 Release the mouse button to drop the object into position.

1.2.5 Scale an object

Scaling an object enlarges or reduces it horizontally (along the X axis), vertically (along the Y axis), or both. You can scale objects using the handles on the bounding box.

To scale an object:

- Select a handle and scale away from the opposite handle with the bounding box or,
- make the settings on the Attributes palette.

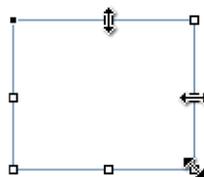


Figure 1.3: Object scaling possibilities



HINT/TIP

When you hold down the SHIFT-key while scaling an object, the width and the height of the object will be the same. This is also true when you place an object. Use the SHIFT-key on lines to constrain the angle to multiples of 45 degrees. When you hold down the CTRL-key while scaling an object, the proportions of the object will be constrained, i.e. the relation between width and height remains intact.

When you hold down the ALT-key while scaling, the anchor point will be temporarily set to the center of the object.

For more information on the bounding box refer to "Bounding box appearances" on page 19.

1.2.6 Stacking objects

The Perception Reporter stacks successively drawn objects on a page, beginning with the first object drawn. How objects are stacked determines how they display and print when they overlap.

You can change the stacking order of objects in your work at any time. The Bring to Front and Send to Back commands let you move an object to the top or the bottom of the stack of objects on its page.

To move an object to the top or bottom position in the stack:

- 1 Select the object that you want to move.
- 2 With a right mouse-click call up the context menu and point to **Arrange** ►
- 3 In the submenu that comes up choose **Bring to Front** or **Send to Back**

To move an object by one object in a stack of multiple objects you may need to repeat the above procedure various times for various objects.

1.2.7 Margins, grid and labels

In the document area you can show and hide visual aids. The following visual aids are available:

- **Printer margins** The printer margins show the margins as defined by the printer settings of your default printer. The printer margins are shown as a black dotted line.
- **User margins** The user margins are set individually in the Report Setup dialog. The margins are shown as a colored line. The line color is specified in the Report Setup dialog.
- **Grid** The grid is defined in the Grid Settings dialog. The grid is shown as colored lines. The line color is specified in the Grid Settings dialog.
- **Labels** Labels are used to identify objects.

The viewing options can be set by toggle buttons in the lower toolbar.

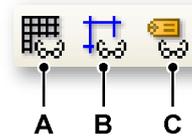


Figure 1.4: Reporter visual aids

- A Show/hide grid
- B Show/hide user margins
- C Show/hide object labels

1.3 Object containers

Each object is placed within a container. When you insert an object, you define the container's boundaries. By default, the size of the container and the size of the object are the same and for most objects are locked to each other.

Since each object is placed within a container, various layout options are set through the container properties.

1.3.1 Container properties

The properties of containers are:

- Line style, line thickness and line color
- Background color
- Shadow

Depending on the type of object, these properties can be more or less evident.

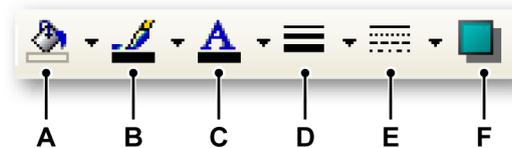


Figure 1.5: Object container properties

- A** Fill color
- B** Line color
- C** Character color
- D** Line width
- E** Line style
- F** Shadow

1.3.2 Examples

Below you will see some examples.



The left-most graphic has:

- Fill color = none
- Line color = black
- Line width = small

The center graphic has:

- Fill color = green
- Line color = red
- Line width = medium

The right-most graphic has:

- Fill color = white
- Line color = none
- Line width = N/A
- Shadow = 1 mm with color set to gray

1.4 Object attributes

All objects on the report page have a position, size and a label. The position is defined by the **X** and **Y** coordinates of the anchor point of the object. Size is defined by a **Width** and **Height** value. There is a label for each object in the report. Object position can be locked. An object can be repeated on multiple pages. You can constrain the proportions of the object.

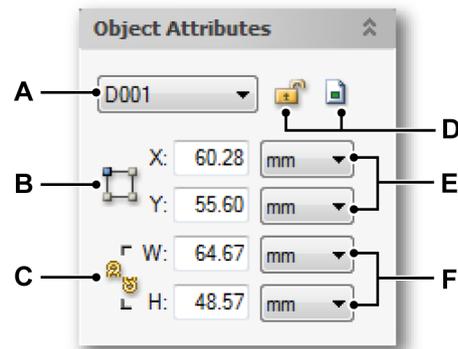


Figure 1.6: Object attributes palette

- A List of available objects on the active (visible) page
- B Anchor point selector
- C Constrain proportions
- D Lock position - Repeat on pages
- E Anchor point coordinates
- F Width and height of object

1.4.1 Positioning and sizing

You can position and size an object directly on the report page. See "Move an object" on page 12 and "Scale an object" on page 12 for details. For accurate positioning and sizing use the object attributes. Each object is marked with a label, to toggle the view of the label use the  button in the lower toolbar.

To position an object using attributes:

- 1 Select the object: point and click on the object on the reporter page, or select an object from the list.
- 2 Select the correct anchor point: click on the anchor point icon  to step through the corners. The active anchor point is highlighted.
- 3 Enter the required values for the X- and Y-coordinate.

To size an object using attributes:

- 1 Select the object: point and click on the object on the reporter page, or select an object from the list.
- 2 To keep the current aspect ratio click on the constrain proportions icon . The icon changes into a 'linked' symbol. Click again to 'unlink'.
- 3 Enter the required values for the **Width** and **Height**. Note that modifying the size is relative to the currently active anchor point.

1.4.2 Lock object position

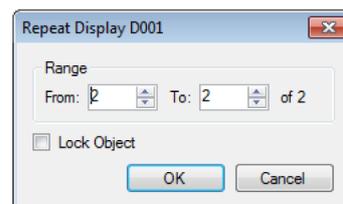
To prevent accidental movement of an object you can lock the position of the object.

To lock the object position:

- 1 Select the object: point and click on the object on the reporter page, or select an object from the list.
- 2 Click on the Lock Object icon  to lock the position. The icon will change into a 'locked' icon. Click again to unlock the position.

1.4.3 Repeat an object on multiple pages

- 1 Select the object: point and click on the object on the reporter page, or select an object from the list.
- 2 Click on the Repeat icon  to call up the Repeat dialog.



- 3 In this dialog you can set the page **Range** in which you want this object to repeat.
- 4 Select **Lock Object** when you want to lock the position of the object as discussed earlier.
- 5 Click **OK** to effectuate the settings.
- 6 Select the Repeat icon again to remove the repeat settings.



HINT/TIP

When you insert pages within a range that includes repeating objects, the objects will be included also on the new pages. This is also true when you add pages directly after a range that includes repeating objects.

Note *You can remove the repeating object feature only on the page of the first occurrence of the repeating object.*

Note *This feature is not available when there is only one page in your report.*

1.4.4 Bounding box appearances

On the report page the bounding box of the object gives visual feedback on the current status: open handles indicate a single object, grayed handles indicate a repeating object. The black handle defines the anchor or hot-spot. When the anchor has a cross, the object is locked.

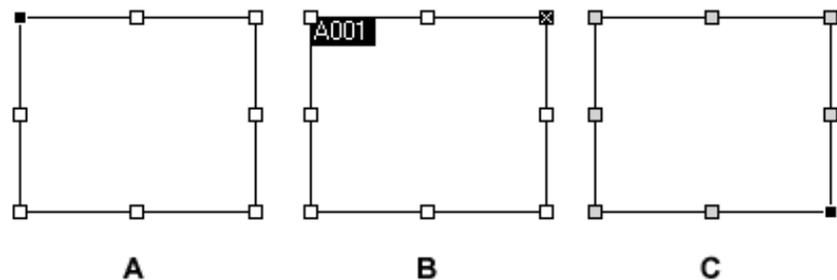
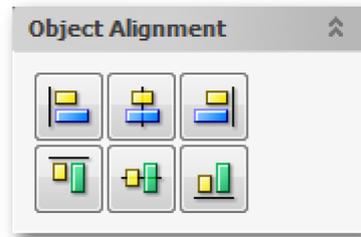


Figure 1.7: Examples of bounding box appearances

- A** Standard bounding box, anchor in the upper left-hand corner
- B** Bounding box with label, anchor in the upper right-hand corner, locked
- C** Repeating object, anchor in the lower right-hand corner

1.5 Object alignment

You use the Object Alignment palette to align selected objects along the axis you specify.



The following alignment methods are available:

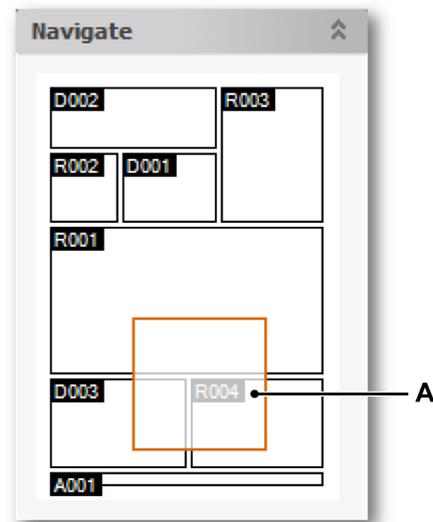
-  Left align
-  Center align
-  Right align
-  Top align
-  Middle align
-  Bottom align

To align objects:

- 1 Select the objects that you want to align. Refer to "Select multiple objects" on page 11 for more information on how to select multiple objects.
- 2 Select the type of alignment.

1.6 Page navigation

You use the Navigate palette to quickly change the view of your work using a thumbnail display. The colored box in the Navigate palette corresponds to the currently viewable area in the document window.



A Zoom area

The navigate area displays the objects with their label for reference.

1.6.1 Zoom select

Use the zoom select control on the lower toolbar to use a predefined zoom factor, or use the zoom tool from the Tools palette to freely set a zoom area in the page area.

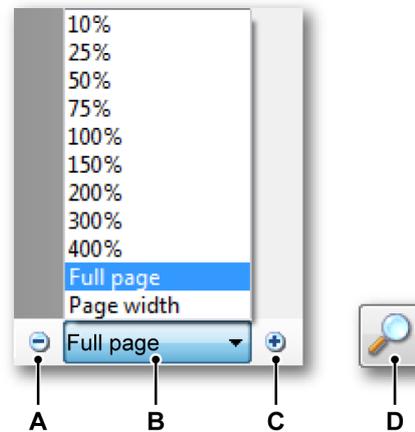


Figure 1.8: Reporter zoom tools

- A** Decrease zoom factor
- B** Select zoom factor
- C** Increase zoom factor
- D** Zoom tool from Tools palette: free style zooming. Click and drag to select the zoom area.

A Decrease zoom level

Click on the **Decrease** button to zoom out. Each click reduces the view to the previous set percentage. When the page has reached its maximum reduction level, the button is dimmed.

B Select zoom level

Click the **Zoom Level** pop-up menu, and choose a zoom level

C Increase zoom level

Click on the **Increase** button to zoom in. Each click magnifies the view to the next set percentage. When the page has reached its maximum magnification level, the button is dimmed.

D Using the zoom tool

To magnify by dragging:

- 1 Select the **Zoom** tool
- 2 Drag over the part of the page you want to magnify.

1.6.2 Moving the zoom area

When the zoom level exceeds a full page, the zoom area indicator is shown in the Navigate area. You can click and drag this area to a new location. When you release the mouse, the report page will be updated.

You can also use the Pan tool  from the Tools palette to scroll the zoom area to a different location

1.6.3 Page select

Use the page select control on the lower toolbar to step through the various pages when available.

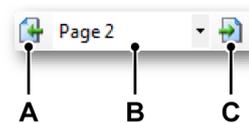
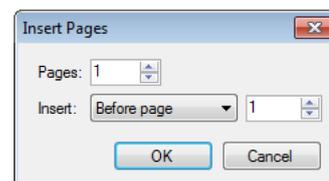


Figure 1.9: Reporter page tools

- A** Go to previous page
- B** Direct page select
- C** Go to next page

To add pages:

- 1 In the menu select **Report ► Insert Pages...**
- 2 In the dialog that comes up:



- Select the number of pages that you want to insert
 - Select Before or After the selected page
 - Select a page as insertion point
- 3 Click **OK** when done.

Or, with the Select tool active, right-click in the page area. In the context menu that comes up select either **Insert Page Before** or **Insert Page After**.

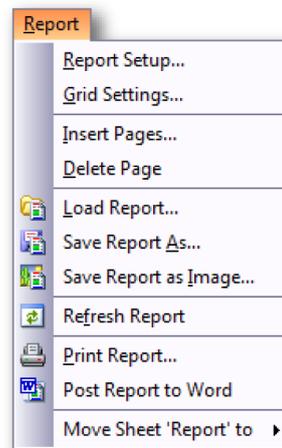
To delete a page:

- In the menu select **Report ► Delete Page**.
- or, with the Select tool active, right-click in the page area. In the context menu that comes up select **Delete Page**

1.7 Report menu

The Report menu lists commands related to Report handling. For layout and content management use the tools that are provided on the left-hand side of the document area.

The Report menu is only available when the Report sheet is on top, that is, visible.



1.7.1 Report Setup

The Report Setup menu command opens the Report Setup dialog. This dialog is used to define the global document properties.

To access the Report Setup dialog:

- 1 Click **Report** in the menu bar
- 2 On the **Report menu** click **Report Setup...**

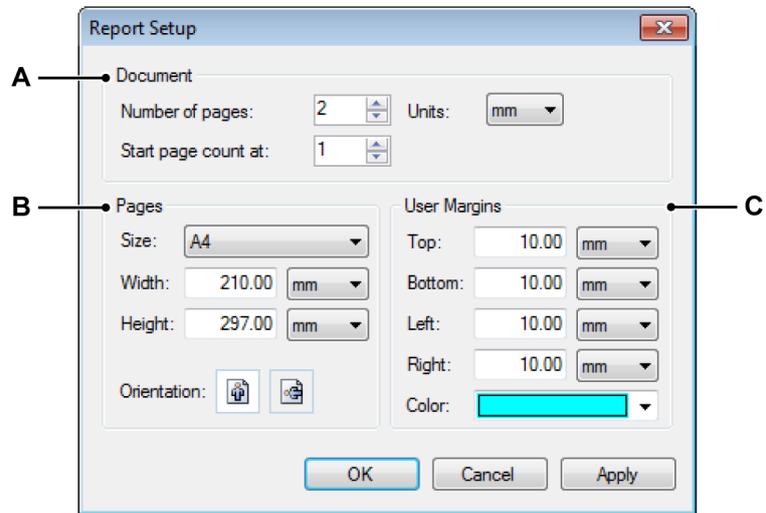


Figure 1.10: Report Setup dialog

- A Document setup
- B Page setup
- C User margins

In the Report Setup dialog you set the global properties of the document: number and size of pages, orientation and user margins.

To set up your document:

- 1 Make the global document settings:
 - **Number of pages** Set the initial number of pages for the document. You may add or delete pages afterwards as required.
 - **Start page count at** By default the page count starts at 1. However, when you want to add your document after another document, you can modify the page count here. The page count is available as a variable in the header and footer objects.
 - **Units** Set the default measurement unit.
- 2 Set page size and orientation:
 - **Size** Select one of the predefined sizes or set a custom size. When you modify Width or Height, the size will be automatically set to Custom.
 - **Orientation** Select between Portrait or Landscape

- 3** Set the User Margins:
As opposed to the printer margins, you can set your own user margins as a visual aid to make sure that your document prints fine also on other printers. Here you set the margins as well as the color of the lines to display the margins. You can toggle the visibility through the *Show Margins* button in the toolbar on the bottom .
- 4** Click **OK** or **Apply** to finish.

1.7.2 Grid Settings

You can add grid lines to the document area. These grid lines are used as a visual aid, but also can be used to snap objects.

To access the Grid Settings dialog:

- 1 Click **Report** in the menu bar
- 2 On the **Report** menu click **Grid Settings...**

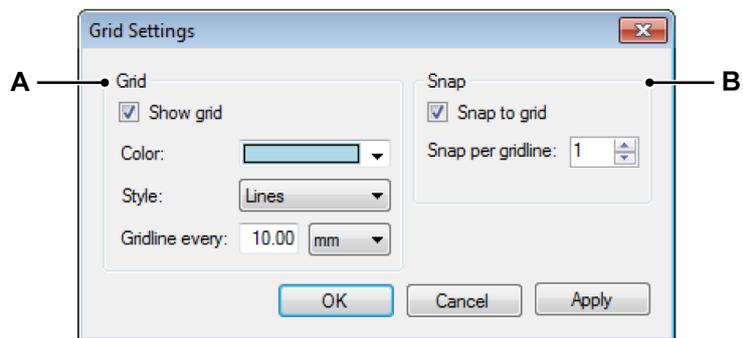


Figure 1.11: Grid Settings dialog

- A Grid settings
- B Snap settings

To set your grid:

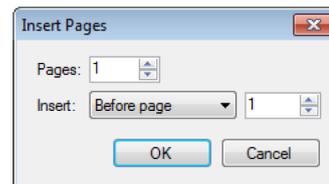
- 1 Make your grid settings:
 - Select **Show grid** to modify the settings. The actual visibility can also be toggled through the *Show Grid* button in the toolbar on the bottom of the Reporter .
 - In the **Color** list select a color for the grid.
 - Choose the **Style**. This can be either lines or dots.
 - Set the grid line spacing using the **Gridline every** setting.
 - Select **Snap to grid** if you want objects to snap to the grid. Here you can also set a higher resolution for the snap. For example for the visibility you may want to set the grid line spacing to 10 mm. If you set 2 as value for **Snap per gridline**, an invisible snap grid will be set with a 5 mm spacing.
- 2 Click **OK** or **Apply** button to effectuate your selections.

1.7.3 Insert / Delete Pages

You can insert pages at any time on any location.

To insert pages:

- 1 In the menu select **Report ▶ Insert Pages...**
- 2 In the dialog that comes up:



- Select the number of **Pages** that you want to insert
 - Select **Insert** Before or After the selected page
 - Select a page as insertion point
- 3 Click **OK** when done.

Or, with the Select tool active, right-click in the page area. In the context menu that comes up select either **Insert Page Before** or **Insert Page After**.

To delete a page:

- In the menu select **Report ▶ Delete Page**.
- or, with the Select tool active, right-click in the page area. In the context menu that comes up select **Delete Page**

1.7.4 Load Report

You can load previously saved reports. This will load the layout of the report, including all images and references to the data sources.

To load a Report:

- 1 Do one of the following:
 - In the menu select **Report ▶ Load Report...**
 - When available in the **toolbar** click the **Load Report...** button 

- 2 In the Load Report dialog that comes up select a report file. This can be:
 - report file, previously saved through the Save Report As... option as a ***.pReportLayout** file
 - report layout, included in a virtual workbench file ***.pVWB**
 - report layout, included in a recording file ***.pNRF**
- 3 Click on the **Open** button

1.7.5 Save a Report

You can save your report for backup purposes. You can save your report as:

- external stand-alone report file: a *.pReportLayout file
- part of a virtual workbench file
- part of a recording file

Note *When you save a report as part of a virtual workbench or recording file, the 'old' report information within that file is overwritten. All other data remains intact.*

To save your report file:

- 1 Do one of the following:
 - In the menu select **Report ► Save Report As...**
 - When available in the **toolbar** click the **Save Report As...** button 
- 2 In the Save Report As dialog that comes up select one of the options mentioned above in the **Save as type** list box and enter a name for the file.
- 3 Click **Save**.

1.7.6 Save a Report as image

In addition to the standard save capabilities you also have the option to save a report as an image file. Now a representation of the data is included and fixed. Choose between the 'standard' *.emf format for inclusion in many popular third party applications, or the specific *.pReportData format.

To save a report as an image:

- 1 Select **Report ► Save Report as Image...** in the Perception menu.
- 2 In the Save Report dialog that comes up select one of the options mentioned above in the **Save as type** list box and enter a name for the file.
- 3 Click **Save**.

1.7.7 Refresh Report

A report is not updated on-the-fly, or automatically. When you insert a variable or display, the current value and waveforms are shown.

To update/refresh a report:

- Select **Report ► Refresh Report** in the Perception menu, or
- Click the Refresh button  in the upper toolbar when visible.

- Also when you switch to another sheet and return to the Report sheet, the report is updated.

1.7.8 Print a Report

You can print a copy of your report using the standard print procedure.

To print a report:

- 1 Do one of the following:
 - In the menu select **Report ► Print Report...**
 - When available in the **toolbar** click the **Print Report...** button 
- 2 In the Print dialog that comes up make your selections.
- 3 Click **OK**.

1.7.9 Post a Report to Microsoft Word

You can post a report directly into Word. Word needs to be active before you can use this command. When you select this command a new document will be created in Word. Each page of the report will create a page in the Word document. The data is placed as a metafile.

To post a report to Word:

- Select **Report ► Post Report to Word** in the Perception menu, or
- Click the Post Report to Word button  in the upper toolbar when available.

1.7.10 Move the Report sheet to another workbook

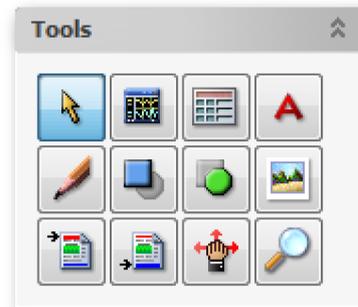
When you have the multiple workbook option installed, you can move the Report sheet to another workbook.

To move a Report sheet

- 1 Select **Report** in the Perception menu.
- 2 Point to **Move Sheet 'Report' to** and select one of the available options:
 - New Workbook to create a new workbook and insert the Report sheet there, or
 - one of the already created workbooks and insert the Report sheet there.

1.8 Design tools

The Tools palette comprises the tools to build the layout of a report.



You can use the following tools to create your layout. You can also use the keyboard accelerator noted between parentheses in the following list to gain access to the tool. Each tool has its own type of cursor.

-  Pointer / selector (**S**)
-  Insert a display (**D**)
-  Insert a report table, user table or cursor table (**T**)
-  Insert text (**A**)
-  Draw a line (**L**)
-  Insert a rectangle (**R**)
-  Place a header (**H**)
-  Insert an ellipse (**E**)
-  Insert an image (**I**)
-  Place a footer (**F**)
-  Scroll / pan zoomed area
-  Zoom

1.8.1 Pointer / selector

Before you can modify an object, you need to isolate it from the objects around it. You do so by *selecting* the object. A selected object displays a bounding box which lets you move or scale the object. See "Bounding box appearances" on page 19. Once you have selected an object you can edit it.

Note *You can't scale or move objects that have been locked. (See "Lock object position" on page 18) However, you still have access to the object properties.*

The selection tool lets you select objects and group of objects by clicking any spot on them or by dragging over them. For more information refer to "Select an object" on page 11, "Select multiple objects" on page 11, "Move an object" on page 12 and "Scale an object" on page 12.

1.8.2 Insert a display

You insert a display as described in "Insert an object" on page 10. You gain access to the properties of the display object using one of the following options:

- Directly after placement of the display object the properties dialog comes up.
- With the mouse cursor above the display object, double-click on the object.
- Right-click the object. In the context menu that comes up select **Properties...**

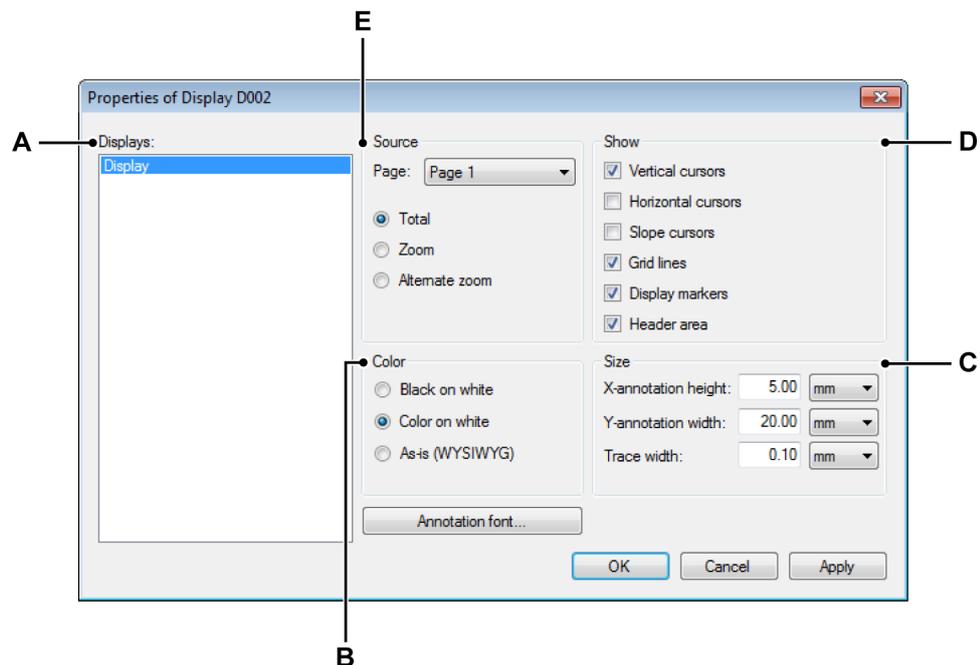


Figure 1.12: Reporter display object properties

- A** List of available displays within Perception
- B** Output color preferences
- C** Annotation Size
- D** Show options for cursor, grid, markers and header visibility

E Source select: page within display and view select: total, zoomed or alternate zoom view

A List of available displays within Perception

Name(s) of the inserted display(s)

B Color preferences

Depending on your type of printer and/or your preferences, you can select the type of color output for this display object:

- Black on white: all text and graphical information will print in black
- Color on white: all text and graphical information will print in colors as used in the original display
- As-is (WYSIWYG): the display will print exactly as defined, including background color.



HINT/TIP

Although the color preferences are specified as ... "on white" (background), the background is actually transparent. Using the object container background color you can set any background color you like, irrespective of the original background color in the display. See "Container properties" on page 15 for more details.

C Annotation Size

Use this section to size the area that you want to reserve for the annotation. This size is not related to the size that you set for actual display itself.

This setting allows you to define an exact waveform area on your report:
waveform area width = display width - annotation width.

You can use this also for the height.

D Show options for cursor, grid, markers and header visibility

The **Show** section comprises the various visual aids of the display: cursors and grid. Only when an option is visible on the display it will be shown also on the report: if it is not visible on the display it will not show on the report, without regard to the setting in this dialog.

In addition you can select to show or hide the header area. The header area provides information about recording name, cursor values and other information typically located on the event bar of the display.

Markers are labels placed on the display to denote points or ranges of interest. You can select to show or hide these labels.

E Source select

Here you select the source of the display you want to show. The **Page** list allows you to select a page within the selected display.

The option list allows you to select which part of the display that you would like to use.

1.8.3 Insert a table

Tables are popular objects within a report. A table within the Perception Reporter consists of rows and columns of cells. A cell is like a text frame in which you can add text and data sources. A table can have a header.

In addition the table can be set to be a copy of a cursor table. Now number of rows and columns as well as the contents is fixed. All other table properties can be set as usual.

You insert a table as described in "Object manipulation" on page 10. You gain access to the properties of the table object using one of the following options:

- Directly after placement of the table object the properties dialog comes up.
- With the mouse cursor above the table object, double-click on the object.
- Right-click the object. In the context menu that comes up select **Properties...**

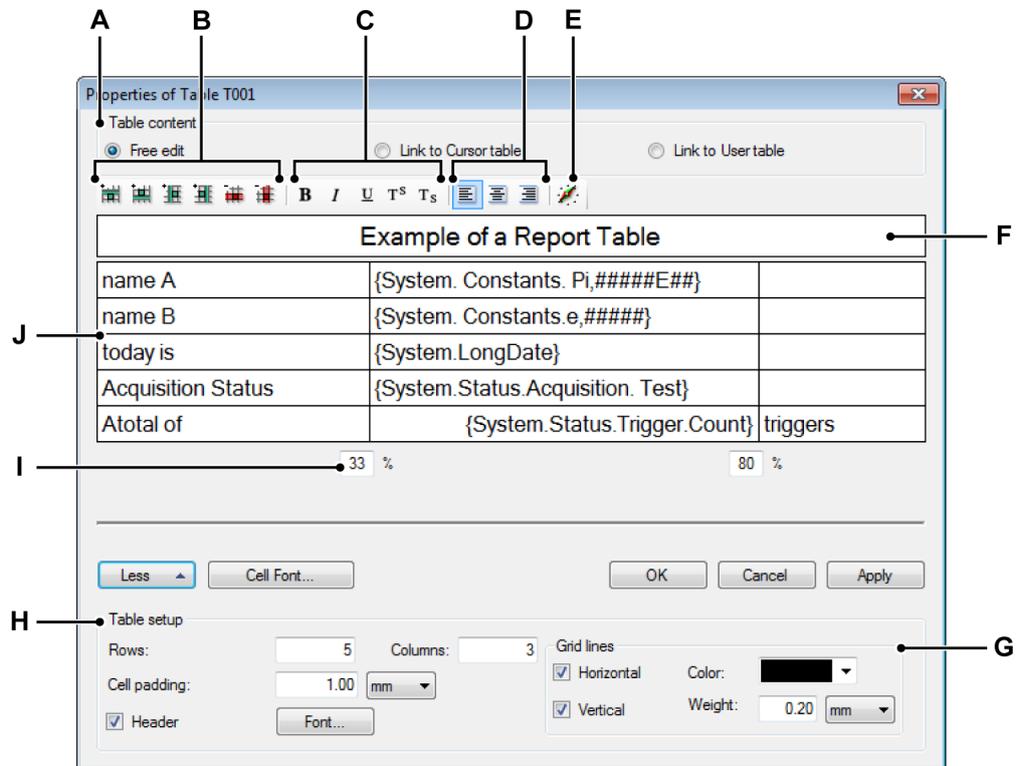


Figure 1.13: Reporter table object properties - report table

- A** Select Table content: Free edit, Link to Cursor table or Link to User table
- B** Insert / delete rows and columns
- C** Set text attributes
- D** Set alignment
- E** Insert / format variables
- F** Table header
- G** Grid line settings
- H** Global table setup
- I** Position of column separators
- J** Matrix of columns and rows: cells

Note *For linked tables not all options are available.*

The following image is an example of a table with the contents and settings as shown in Figure 1.13 on page 37.

Example of a Report Table		
name A	3.142E+00	
name B	2.718	
today is	vrijdag 24 maart	
time	10:05:15	
Acquisition status	Run	
A total of	12	triggers

A Table type

You can choose between three types of tables:

- **Free edit** This is the standard, free configurable table.
- **Link to Cursor table** This is a predefined table. Setup and values are copied from a cursor table. You can select to which display and display page you want to connect. Also you have the option to select the format and cursors. Minor modifications to the layout are allowed. For details refer to "Cursor table additional settings" on page 43.
- **Link to User table** The User Table is a user configurable table that can be used to show any non-waveform data source like (intermediate) scalar results, text and system constants and variables in a tabular form. For more information about User tables refer to the Perception manual chapter, "User tables".

B, J Rows, columns and cells

A table typically has a body with rows and columns and a header that spans the entire table. Each intersection of a row and a column is a table cell and each cell can contain text, variables or both.

To expand or contract the table matrix

- In the Table Properties dialog make sure you see the **More** options. In the **Table setup** section enter the number of columns and rows you want.

To add a single row or column

- Select a cell adjacent to where you want a new row or column to appear. In the toolbar, click the Add Row before button , the Add Row after button , the Add Column before button , or the Add Column after button .

To delete a single row or column

- Select a cell within the row or column that you want to delete. In the toolbar click the Delete selected row button , or the Delete selected column button .

C Text attributes

You can set the global appearance of cell text through the **Cell Font** option. You can also modify part of a text in a cell.

To select text

With the text cursor, do one of the following:

- Drag over a character, word, or an entire text block to select it.
- Double-click a word to select it. Spaces next to the word are not selected.
- Triple-click anywhere in a line to select a line.

To modify the appearance of part of a text

- Select the text that you want to modify.
- In the toolbar select one or more of the format buttons Bold **B**, Italic *I*, Underline U, Superscript **T^s** or Subscript **T_s**.

D Alignment

You can set the text alignment within a cell for each cell individually.

To set the alignment

- 1 Select the cell that you want to modify.
- 2 In the toolbar select the Left Align button , the Center Align button , or the Right Align button .

Insert text

To insert text in a cell, select that cell and start typing.

E Insert and format variables

You can enter variables in cells and format the output. Variables can be combined within a cell with text.

To insert a variable

- 1 Select the cell in which you want to put the variable. Position the text cursor on the insertion point.
- 2 Click on the **Add DataSource** button  in the toolbar. The Insert Data source dialog will come up. For more information about this dialog refer to the Perception manual chapter, "Data source properties".

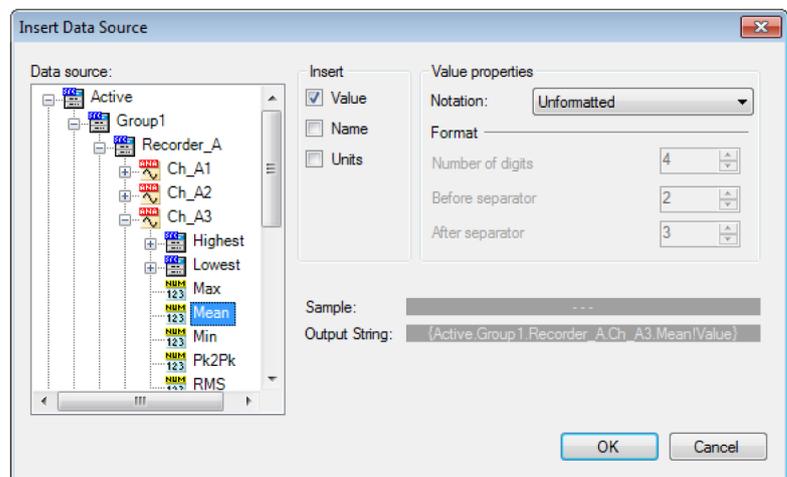


Figure 1.14: Insert Data Source dialog

- 3 Select the source in the list on the left-hand side and select which parameters you want to use: value, name and units. Optionally define the notation and format of the value.
- 4 Click **OK**. Now a reference to that variable is entered into the cell, for example **{Active.Group1.Recorder_A.Ch_A3.Mean!Value}**.

When you close the Table Properties dialog, the table will be updated with the information provided. When no actual data is available, for example because a recording has not been made, the placeholder will be shown. After a recording and after a Refresh Report, the actual data will be filled in. (See "Refresh Report" on page 31)

To format a variable

- 1 When you are not already in the **Insert Data Dialog**, position the text cursor somewhere within the variable's Placeholder and click **Add DataSource**.

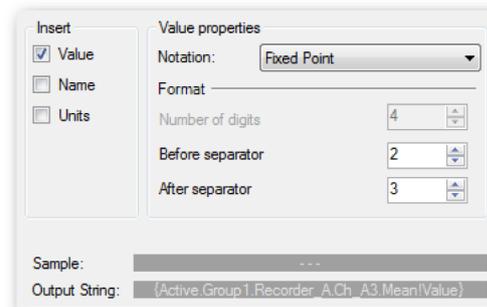


Figure 1.15: Value properties (detail of the Insert Data Source dialog)

- 2 **Notation:** within this dialog you can select between multiple output formats from the drop down combo box:
 - **Unformatted:** take the original information over.
 - **Integer:** a number with no decimals
 - **Floating Point:** a number with decimals, without fixed 'layout'.
 - **Fixed Point:** a number with decimals, fixed number of places before and after the decimal separator.
 - **Scientific Notation:** a shorthand way of writing very large or very small numbers. A number expressed in scientific notation is expressed as a decimal number between 1 and 10 multiplied by a power of 10.
 - **Engineering Notation:** a scientific notation in which the power of ten is a multiple of three. The power of ten is represented by prefixes like *kilo* or *milli*.
- 3 For each output format you can select the relevant number of digits.
- 4 Make your selections and click **OK** when done.

For each selection you make in the Value properties area an example is given of the output and the corresponding placeholder, with the value of PI as an example.

To add the name or units of a data source

You can insert the name and units of a variable:

- 1 When you are not already in the **Insert Data Dialog**, position the text cursor somewhere within the variable's Placeholder and click **Add DataSource**.

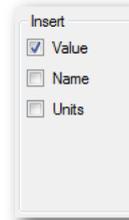


Figure 1.16: Insert name or units (Detail of the Insert Data Source dialog)

- 2 Select **Name** or **Units** and click **OK**. When you clear all selections, the value will be entered by default. When you clear **Value**, but select **Name** and or **Units**, the value will not be used.

F Table header

You can select to have a table header yes or no. Also you can select a font for the header different from the global cell font. You make these settings in the Table Setup section.

G Grid lines

The grid lines are the lines between the rows and columns. You can apply a color and a line weight to these lines. Vertical and horizontal separators can be switched on and off separately.

Note

The border around the table is set through the container properties as explained in "Object containers" on page 15.

H Global table setup

The global table setup allows you to define the number of rows and columns of the table. Here you also specify if you want a header and if so, the font of the header text. The **Cell padding** is the spacing around the text, i.e. the distance between the text and the grid lines.

I Column sizing

You can set the width of the columns by specifying the relative position of the column separators. You enter these values directly into the boxes below the separators.

Cursor table additional settings

The additional settings for the cursor table include source select, formatting and cursor(s) select.

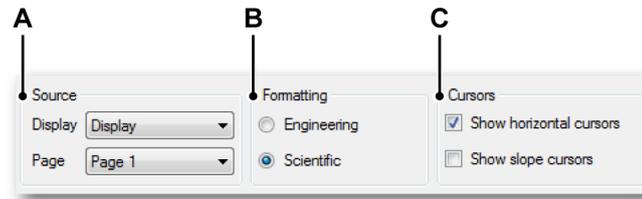


Figure 1.17: Report table object properties - cursor table settings

- A** Select source: display and page within the display
- B** Formatting: select engineering or scientific
- C** Cursors: show values of specific cursors

A Select table source

Here you select the source of the display you want to show. The **Display** list gives all available displays within the current workbench, visible or not. The **Page** list allows you to select a page within the selected display.

B Formatting

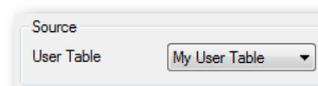
Here you select the number formatting: **Engineering** or **Scientific**. See paragraph "To format a variable" for more details on these formats.

C Cursors

As standard the values are displayed of the vertical measurement cursors. Select which values you also want to be included: the measured values of the **horizontal** cursors and / or the measured values of the **slope** cursors.

User table additional settings

There is one additional setting for the user table: select the source.



Here you select which user table you want to use. The list gives all available User Tables within the current workbench.

1.8.4 Insert text

You can insert random text anywhere. Text can include variables. Text can be a simple label or complete paragraphs describing a test setup.

You insert a text object as described in "Object manipulation" on page 10. You gain access to the properties of the text object using one of the following options:

- Directly after placement of the text object the properties dialog comes up.
- With the mouse cursor above the text object, double-click on the object.
- Right-click the object. In the context menu that comes up select **Properties...**

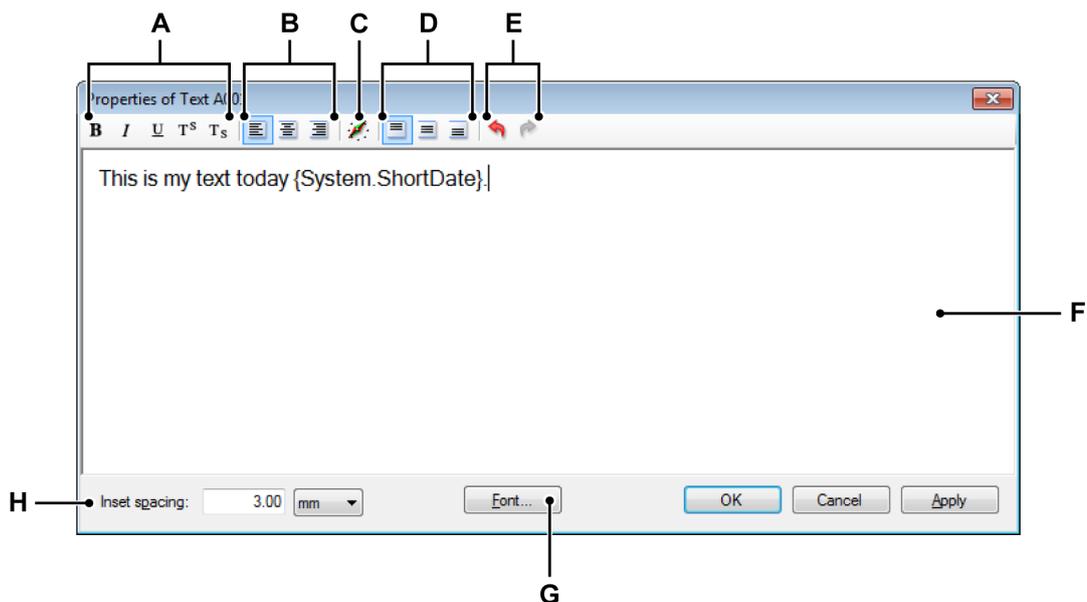


Figure 1.18: Reporter text object properties

- A Set text attributes
- B Set horizontal alignment
- C Insert and format variables
- D Set vertical alignment
- E Undo / redo
- F Text area
- G Global text font selection
- H Inset spacing

Enter text

To enter text, position the cursor in the text area and start typing.

A, G You can set the global appearance of text through the Font option. You can also modify part of a text.

To select text

With the text cursor, do one of the following:

- Drag over a character, word, or an entire text block to select it.
- Double-click a word to select it. Spaces next to the word are not selected.
- Triple-click anywhere in a line to select a line.

To modify the appearance of part of a text

- 1 Select the text that you want to modify.
- 2 In the toolbar select one or more of the format buttons Bold **B**, Italic *I*, Underline U, Superscript **T^s** or Subscript **T_s**.

B Horizontal alignment

You can set the horizontal text alignment within the text area.

To set the horizontal alignment

- In the toolbar select the Left Align button , the Center Align button , or the Right Align button .

C Insert and format variables

You can enter variables in the text and format the output.

To insert a variable

- 1 Position the text cursor on the insertion point.
- 2 Click on the **Add DataSource** button  in the toolbar. The Insert Data Source dialog will come up.

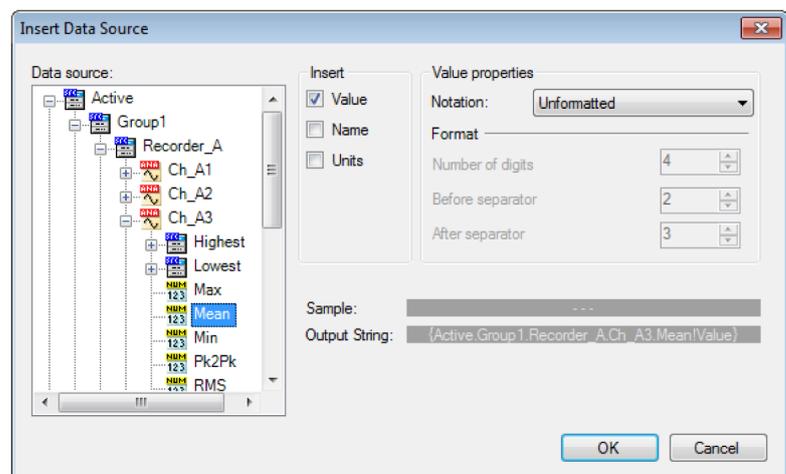


Figure 1.19: Insert Data Source dialog

- 3 In this dialog select the source, parameters and the formatting as described earlier in this document.
- 4 Click **OK**. Now a reference to that variable with formatting options is entered into the text.

D Vertical alignment

You can set the vertical text alignment within the text area.

To set the vertical alignment

- In the toolbar select the Align Top button , the Align Middle button , or the Align Bottom button .

E Undo / redo

Certain actions can be undone or redone. If so, the corresponding button in the toolbar is enabled.

To undo or redo an action

- To undo an action, click the **Undo** button .
- To redo an action, click the **Redo** button .

F Text area

The text area is where you place the text. The background and border of this area are set through the container properties as described in "Container properties" on page 15.

H Inset

The **Inset spacing** is the spacing around the text, i.e. the distance between the text and the border of the text object.

1.8.5 Insert graphical objects

The Perception Reporter provides the following graphical objects: line, rectangle and ellipse.

You insert any of these objects as described in "Object manipulation" on page 10. You gain access to the properties of each object using one of the following options:

- With the mouse cursor above the object, double-click on the object.
- Right-click the object. In the context menu that comes up select **Properties...**

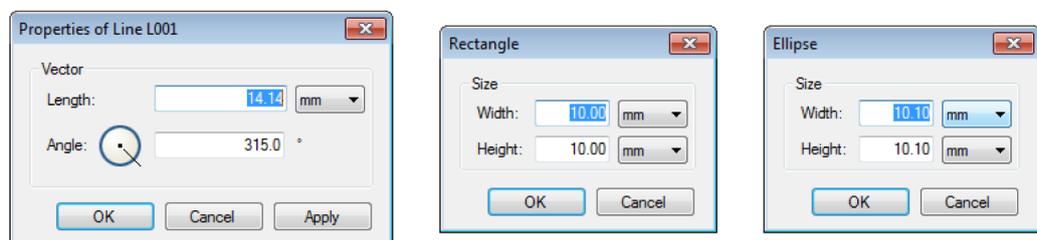


Figure 1.20: Reporter line, rectangle and ellipse object properties

Here you can make the required modifications.

1.8.6 Insert images

You can insert and scale images, company logos, etc. into your report.

You insert an image object as described in "Object manipulation" on page 10. You gain access to the properties of the image object using one of the following options:

- Directly after placement of the image object the properties dialog comes up.
- With the mouse cursor above the image object, double-click on the object.
- Right-click the object. In the context menu that comes up select **Properties...**

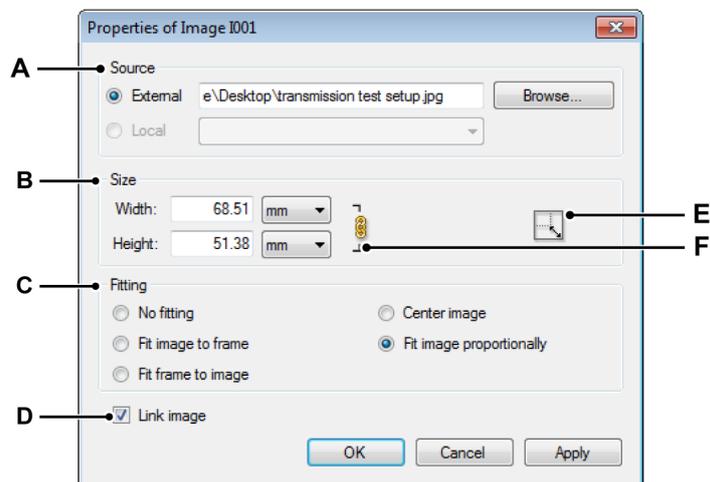


Figure 1.21: Reporter image object properties

- A Image source
- B Size of image
- C Fitting of image within frame (container)
- D Embed image
- E Restore image to original size
- F Constrain proportions

A Select image source

Currently most popular bitmap and vector image types are supported.

To select the image

- 1 In the Image properties dialog click **Browse...**
- 2 In the **Open image file to add to report...** dialog select the file that you want to include and click **Open**.
- 3 Make the modifications as required in the properties dialog and click **OK** when done.

B, F Image size

Once an image is loaded the original size is displayed here. Size is calculated as resolution (number of pixels) times DPI (dots per inch) by the OS. When no DPI information is available within the image, the screen DPI setting (typically 96 or 120) is used.

To change the image size

- 1 Open the image **Properties** dialog.
- 2 To maintain the current proportions of width to height, select **Constrain Proportions**. When the Constrain Proportions icon is locked  , the aspect ratio of the image is preserved, i.e. modifying one value will automatically update the other value. When the Constrain Proportions icon is broken  , the width and the height can be freely set. The image will be distorted.
- 3 Enter new values for **Width** and **Height**.
- 4 When you're done setting options, click the **OK** button.

C, E Image fitting

As mentioned earlier, an image object is placed within a container. You can define how the container (frame) and image fit. Feel free to experiment the various possibilities:

- **Fit Image to Frame** Resizes the image to fit the frame and allows the content proportions to be changed. The frame will not change, but the content may appear to be stretched if the content and the frame have different proportions.
- **Fit Frame to Image** Resizes a frame to fit its content. The frame's proportions are altered to match the content proportions, if necessary. This is useful for resetting a graphics frame that you accidentally altered.
- **Center Image** Centers content within a frame. The proportions of the frame and its content are preserved.
- **Fit Image Proportionally** Resizes image to fit a frame while preserving the content proportions. The frame's dimensions are not changed. If the content and the frame have different proportions, some empty space will result.

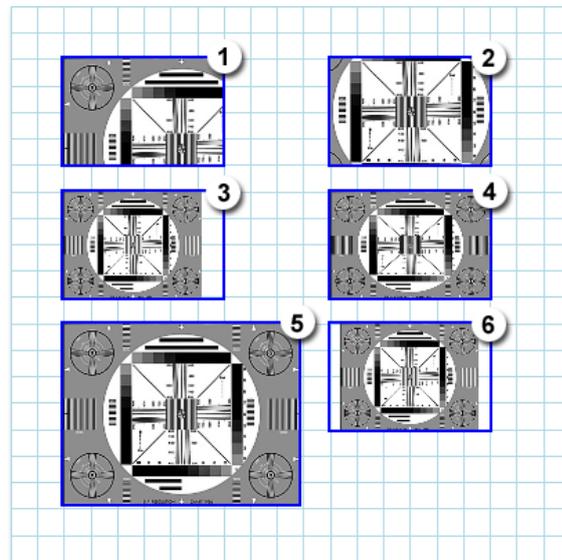


Figure 1.22: Image fitting examples

- 1 No Fitting
- 2 No Fitting -> Center Image
- 3 Fit Image Proportionally
- 4 Fit Image to Frame
- 5 Fit Frame to Image
- 6 Fit Image Proportionally -> Center Image

When playing around with these options it might be necessary once in a while to click the **Restore Image** to original size button  .

D Embed image

To embed the image into the virtual workbench, select **Include data in save**.

1.8.7 Insert header and footer

Headers and footers have a fixed position. To add a header or footer click on the header or footer button in the tools area. In the dialog that comes up enter the text and layout of the header or footer.

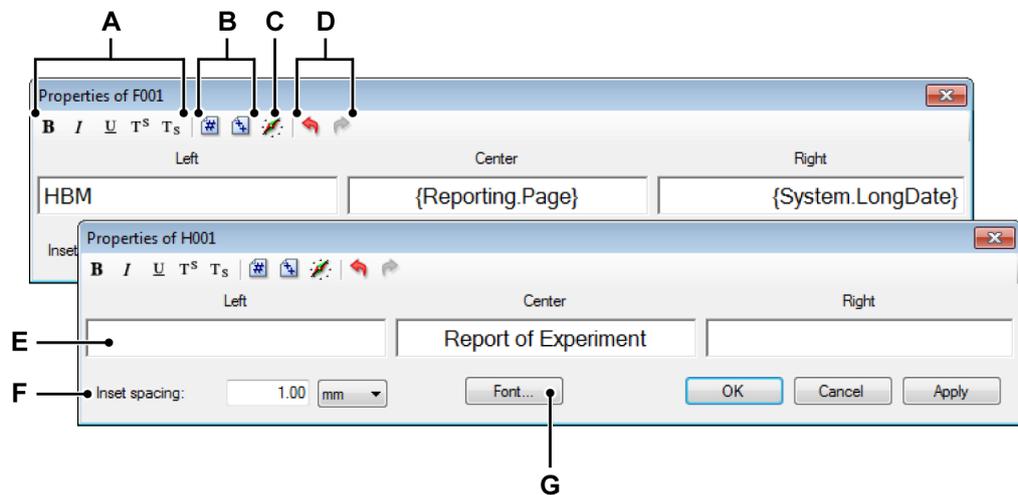


Figure 1.23: Reporter Header/Footer object properties

- A Set text attributes
- B Insert page number / number of pages
- C Insert and format variables
- D Undo / redo
- E Text areas
- F Inset spacing
- G Global text font selection

The header and footer have three text areas with fixed alignment, one for the left-hand side of the page, one for the center and one for the right-hand side of the page. For each text area use techniques as described below.

Enter text

To enter text, position the cursor in the text area and start typing.

A, G Text attributes

You can set the global appearance of text through the **Font** option. You can also modify part of a text.

To select text

With the text cursor, do one of the following:

- Drag over a character, word, or an entire text block to select it.
- Double-click a word to select it. Spaces next to the word are not selected.
- Triple-click anywhere in a line to select a line.

To modify the appearance of part of a text

- 1 Select the text that you want to modify.
- 2 In the toolbar select one or more of the format buttons **B**, *I*, U, ^{T^s} or _{T_s}.

B Insert page number / number of pages

You can insert the current page number and total number of pages.

To insert a page number / number of pages

- 1 Position the text cursor on the insertion point.
- 2 Click on the **Page Number** icon  or **Number of Pages** icon  to insert a placeholder in the text.

C Insert and format variables

You can enter variables in the text and format the output.

To insert a variable

- 1 Position the text cursor on the insertion point.
- 2 Click on the **Add DataSource** button  in the toolbar. The the Insert Data Source dialog will come up.

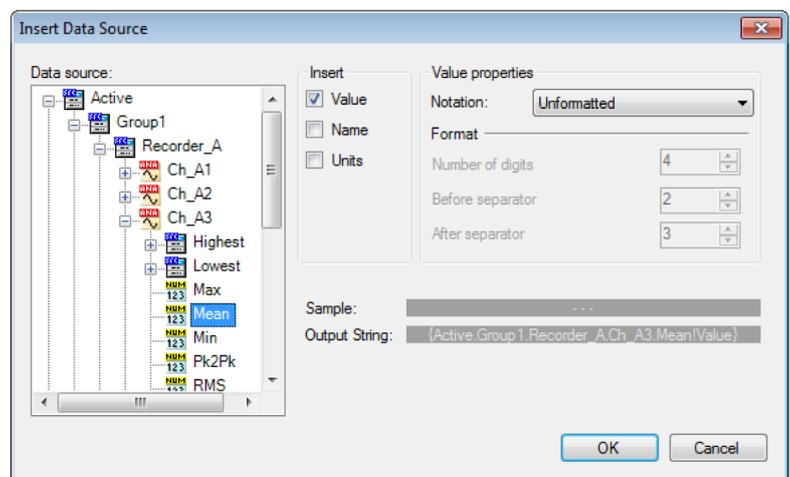


Figure 1.24: Insert Data Source dialog

- 3 In this dialog select the source, parameters and the formatting as described earlier in this document.
- 4 Click **OK**. Now a reference to that variable with formatting options is entered into the header or footer text.

D Undo / redo

Certain actions can be undone or redone. If so, the corresponding button in the toolbar is enabled.

To undo or redo an action

- To undo an action, click the **Undo** button .
- To redo an action, click the **Redo** button .

E Text areas

The text area is where you place the text.

F Inset

The **Inset spacing** is the spacing around the text, i.e. the distance between the text and the border of the text object.

1.8.8 Scroll/pan zoomed area

If the entire page is not visible in the document area, you can navigate to bring another area of the page into view.

Use the Pan tool  from the Tools palette and drag to pan over the page.

Also the zoom area indicator is shown in the Navigate area. You can click and drag this area to a new location. When you release the mouse, the report page will be updated.

1.8.9 Zoom

Use the zoom tool from the Tools palette to freely set a zoom area in the page area, or use the zoom select control on the lower toolbar to use a predefined zoom factor.

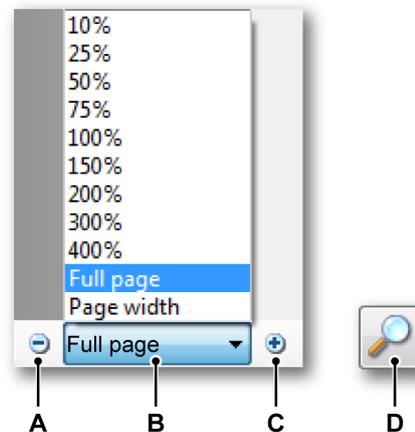


Figure 1.25: Reporter zoom tools

- A Decrease zoom level
- B Select zoom level
- C Increase zoom level
- D Zoom tool from Tools palette: free style zooming. Click and drag to select the zoom area.

A Decrease zoom level

Click on the **Decrease** button to zoom out. Each click reduces the view to the previous set percentage. When the page has reached its maximum reduction level, the button is dimmed.

B Select zoom level

Click the **Zoom Level** pop-up menu, and choose a zoom level

C Increase zoom level

Click on the **Increase** button to zoom in. Each click magnifies the view to the next set percentage. When the page has reached its maximum magnification level, the button is dimmed.

D Using the zoom tool

To magnify by dragging

- 1 Select the **Zoom** tool
- 2 Drag over the part of the page you want to magnify.

1.9 Report to Word

1.9.1 Introduction

In addition to the Report Sheet, an advanced "Report to Word" feature is also included in the Reporter Option. This feature can be found in the Automation menu. The Report to Word feature makes it possible to place Perception objects at predefined locations in a Microsoft Word template. By doing this, a report can be generated in Word tests, each with exactly the same layout. Combine your own text and layout in Word with dynamic data from Perception. No cut-copy-paste procedures are required and you can fully customize and automate your reports, if necessary.

This chapter describes how you can set up Word reporting in Perception.

Word reports can be created in the Perception **Automation** menu. These menu items, i.e. actions, are used for various Automation processes. (see Figure 1.26 for further details).

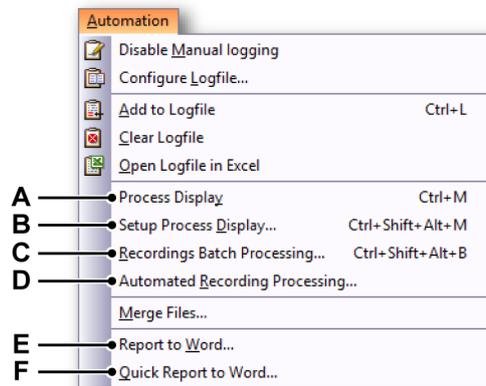


Figure 1.26: Automation menu

- A Process Display** Select this option or press the **Ctrl+M** key combination to create a Word report linked to a specific display manually.
- B Setup Process Display...** Select this option or press the **Ctrl+Shift+Alt+M** key combination to create a Word report linked to a specific display manually.
- C Recordings Batch Processing...** Select this option or press the **Ctrl+Shift+Alt+B** key combination to create Word reports after you have done a number of recordings.
- D Automated Recording Processing...** Select this option to create a Word report after each recording automatically.

- E Report to Word...** Select this option to create a Word report manually.
- F Quick Report to Word...** Select this option to create a Word report manually by using a simple report layout.

1.9.2 Report to Word by using Setup Process Display

The following chapter shows an example of a **Report to Word**. The **Process Display** option will be used to illustrate this.

- 1 Select **Automation ► Setup Process Display** from the menu bar.

Note *Make sure that you have an active display in the selected sheet.*

The following setup dialog will be shown:

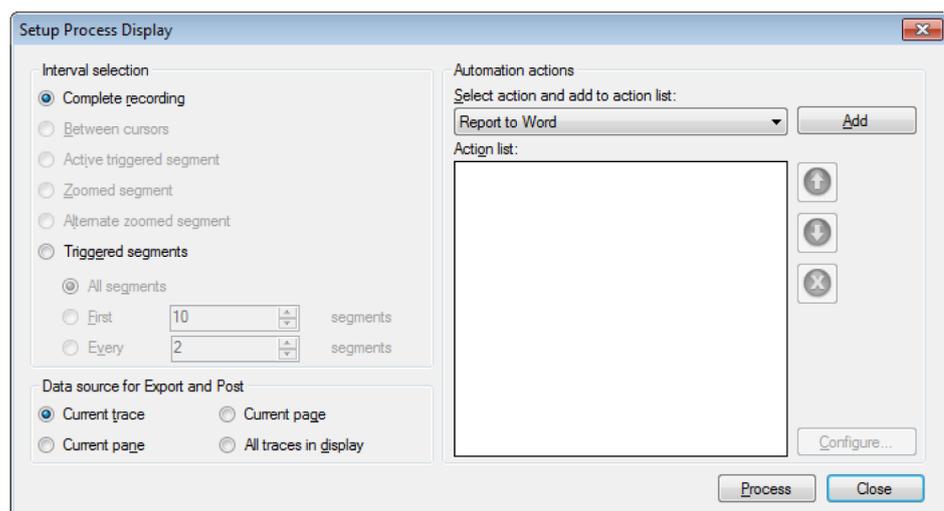


Figure 1.27: Setup Process Display dialog

- 2 Select **Report to Word** action from the **Automation actions** list.

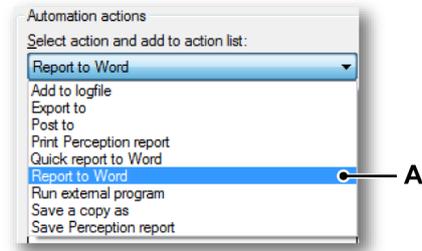


Figure 1.28: Automation actions (Detail)

A Report to Word option

- 3 First click the **Add** button to add this option to the action list and then click the **Configure** button in the **Automatic Actions** area.



A Add a Report

B Configure a Report

4 The Report to Word configuration dialog comes up:

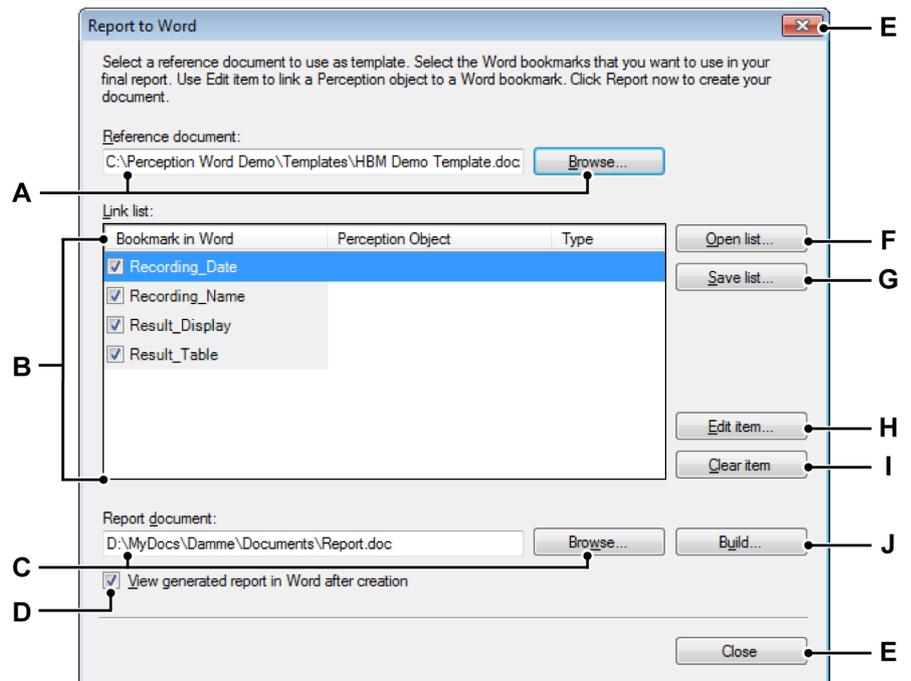


Figure 1.29: Report to Word configuration dialog

- A** The **Reference document** used
- B** A **link list** containing bookmarks linked to Perception objects
- C** The **Report document** that will be generated
- D** A check box to view the report generated in Word after its creation
- E** **Close** to close the dialog and save all settings
- F** **Link list** to open a link list
- G** **Save list** to save a link list
- H** **Edit item** to set up the selected item
- I** **Clear item** to clear the selected item
- J** **Build** to open the **Build Storage Path and File Name** dialog

- A** **Reference document** Name of the reference document which will be used as the template for new Word documents to be generated. Click **Browse...** to navigate to the desired reference document. The **Browse...** command will open the common File Open dialog.
- B** **Link list** This list shows all the links between the bookmarks from the Word document and the Perception objects.

- C Report document** The name and folder where the generated Word documents will be saved.
- D** A check box to view the report generated in Word after its creation.
- E Close** to close the dialog and save all settings.
- F Open** an existing **Link list** containing links between the bookmarks and the Perception objects. This can be used to accelerate the setup procedure of a new configuration.
- G Save list** Save the current **Link list**. This saved list can be re-used to set up a new configuration later.
- H Edit item** Edit an item from the **Link list**. This dialog allows you to define the relationship between the Bookmark and the Perception object.
- I Clear item** to clear the link to the Perception object.
- J Build** to open the **Build Storage Path and File Name** dialog. This dialog allows you to build a file name and full storage path based on Perception system variables.

5 Define the **Reference document**:

Report document is used to define the output (result) file. You can either type in the name of the document directly, or click the **Browse** button to navigate to the reference document (**B**). This reference document will be used as a template for your Word reports. Placeholders mark the location where Perception objects have to be inserted in the template. These placeholders are called **Bookmarks in Word**.

The reference document can be a Word document (*.doc, *.docx) or a Word template (*.dot, *.dotx)

For information how to insert bookmarks, refer to chapter "How to add Bookmarks to a Word template file" on page 75.

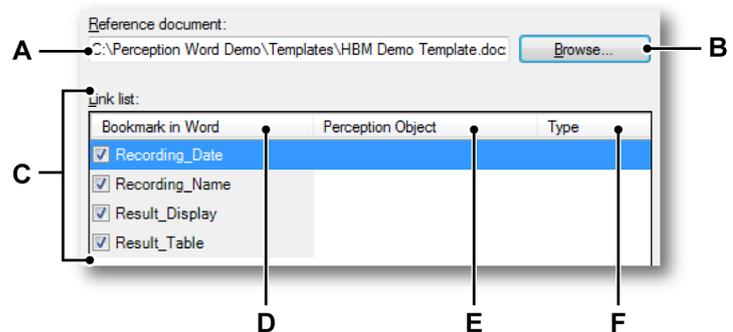


Figure 1.30: Report to Word dialog (Detail)

- A** Name of the reference document
- B** Browse to the reference document
- C** Link list
- D** Bookmark in Word
- E** Perception Object
- F** Type

The path and the name of the selected **Reference document** is shown :
C:\Perception Word Demo\Templates\HBM Demo Template.docx

Note *This Word reference file is just an example and is not part of the Perception installation.*

After inserting the reference document, Perception will search for all the bookmarks in this document and display them in the **Link list (C)**. In this example, you can see that Perception found four bookmarks (**D**):

- **Recording_Date**
- **Recording_Name**
- **Result_Display**
- **Result_Table**

The link list has the following columns:

- **Bookmark in Word** A list of bookmarks found in the reference document. Each bookmark has a checkmark. If selected, the bookmark will be used and replaced by the Perception object. This allows you to:
 - Create a (default) link list that has more information than required for a specific output document.
 - Open a reference document that also uses bookmarks for other purposes.
 - **Perception Object** The name of the Perception object linked to the bookmark.
 - **Type** The type of the selected object. This field cannot be edited.
- 6 Link the bookmarks to Perception objects. Perception has four different kinds of objects which can be linked to a bookmark:
- Data sources
 - Displays
 - Tables
 - Images

Select the bookmark **Recording_Date** in the link list and Click the **Edit item** button to open the **Edit item** dialog (see Figure 1.29).

Figure 1.31 shows how to define the link between the bookmark and a Perception object. The **Edit item** dialog has four tabs which are related to the four different kinds of Perception objects available for linking the bookmarks:

- Data Sources
- Displays
- Tables
- Images

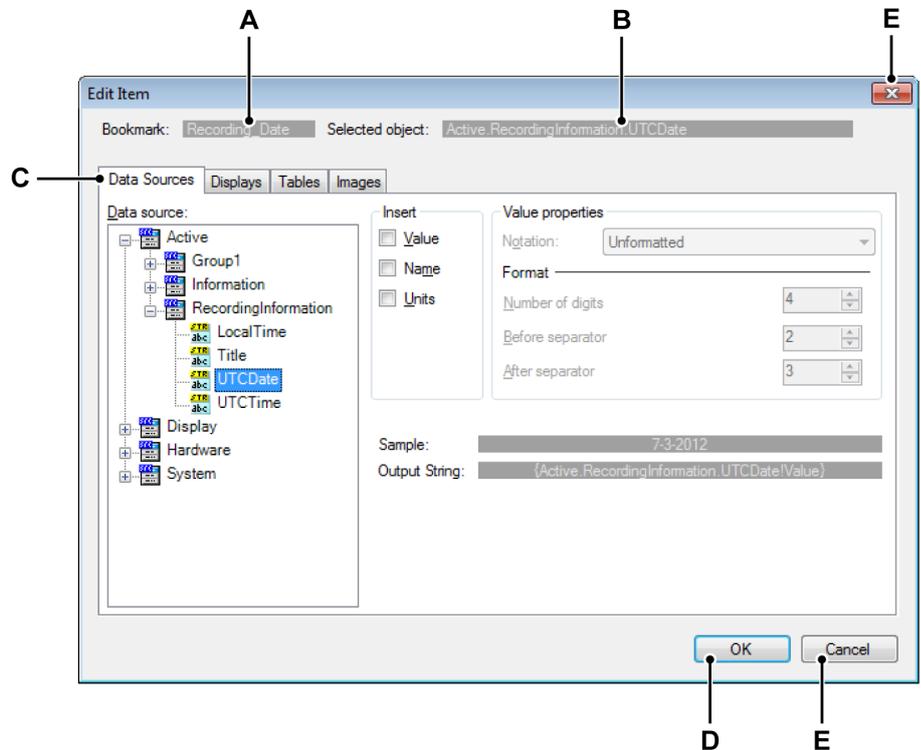


Figure 1.31: Edit item dialog - Data Source tab

- A** Bookmark field
- B** Selected object field
- C** Tabs that represent Perception objects
- D** OK button
- E** Cancel button

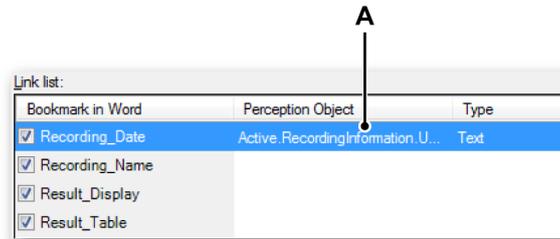
In the top area of the dialog, the (previously) selected **Bookmark** and the currently **Selected object** are displayed. These fields cannot be edited. If you click **OK**, this is the link that will be defined. Click **Cancel** to discard all changes or works in progress, revert to the previous state, and close the window.

If the **RecordingInformation** data source is not present, open an existing recording an active source or make a new recording.

If a check box in the **Insert** area is selected, you can insert a variable on the right-hand side of the dialog. For more information, refer to Figure 1.24 "Insert Data Source dialog" on page 53.

Note *Each tab, and therefore each object type, has its own set of properties. These properties are derived from the currently available property settings as used when inserting objects into the Perception reporter.*

After you have closed the **Edit Item** dialog, the newly established link between the **Bookmark in Word** and **Perception Object** is shown (see Figure 1.32).

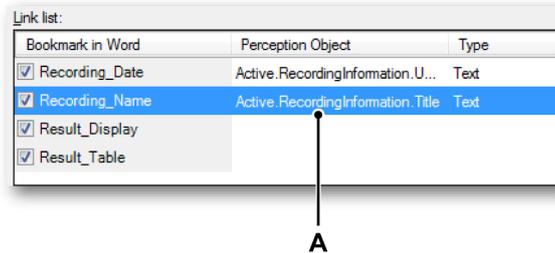


Bookmark in Word	Perception Object	Type
<input checked="" type="checkbox"/> Recording_Date	Active.RecordingInformation.U...	Text
<input checked="" type="checkbox"/> Recording_Name		
<input checked="" type="checkbox"/> Result_Display		
<input checked="" type="checkbox"/> Result_Table		

Figure 1.32: Link list with Perception Object (Type Text - Part 1)

A Perception Object

- Repeat the procedure described above (Step 6) for the **Recording_Name**. Link it to the data source **Active.RecordingInformation.Title** (see Figure 1.33).



Bookmark in Word	Perception Object	Type
<input checked="" type="checkbox"/> Recording_Date	Active.RecordingInformation.U...	Text
<input checked="" type="checkbox"/> Recording_Name	Active.RecordingInformation.Title	Text
<input checked="" type="checkbox"/> Result_Display		
<input checked="" type="checkbox"/> Result_Table		

Figure 1.33: Link list with Perception Object (Type Text - Part 2)

A Perception Object

- 8 The next bookmark, **Result_Display**, will be linked to the active display. Select the **Result_Display** bookmark in the **Link list** and then click the **Edit item** button. Select the **Displays** tab in the **Edit Item** dialog (see Figure 1.34).

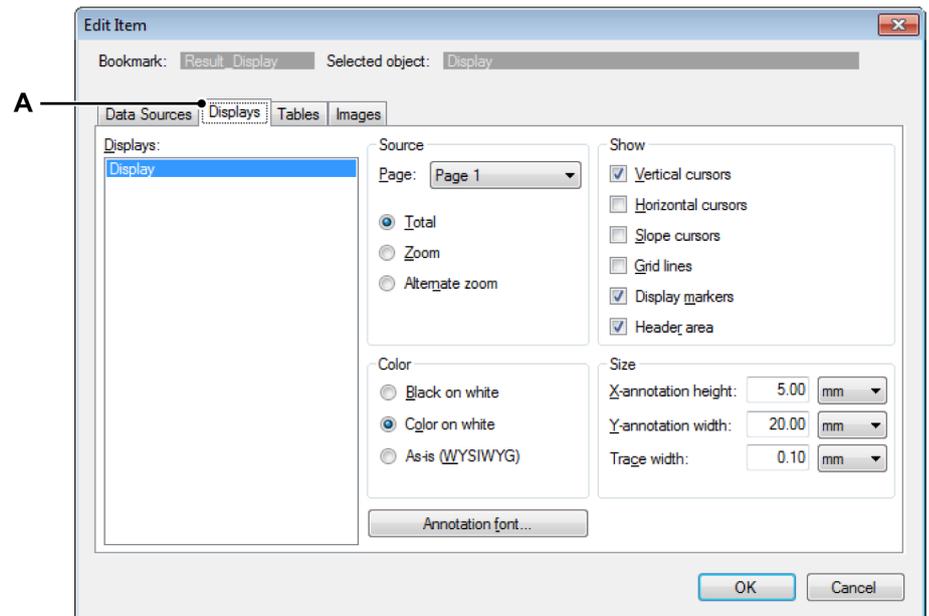


Figure 1.34: Edit Item - Displays tab

A Displays tab

The **Displays** list shows all the displays which are available in Perception. In this example, the available display is called **Display**. You can configure the way the display is shown in your Word document on the right-hand side of the area.

- **Source** Page number, Zoom modus
- **Color** Black on white, Color, WYSIWYG
- **Show** Cursors, Grid lines, Display markers, Header area
- **Size** X-annotation, Y-annotation, Trace width

Confirm your settings with **OK** and the **Link list** will be updated (see Figure 1.35).

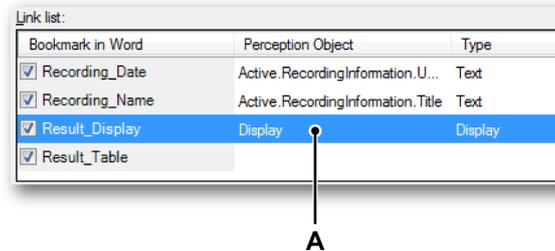


Figure 1.35: Link list with Perception Object (Type Display)

A Perception Object

- 9 The last bookmark, **Result_Table**, will be linked to a Perception user table. Select the bookmark in the **Link list** and then click the **Edit item** button. Select the **Tables** tab in the **Edit Item** dialog (see Figure 1.36).

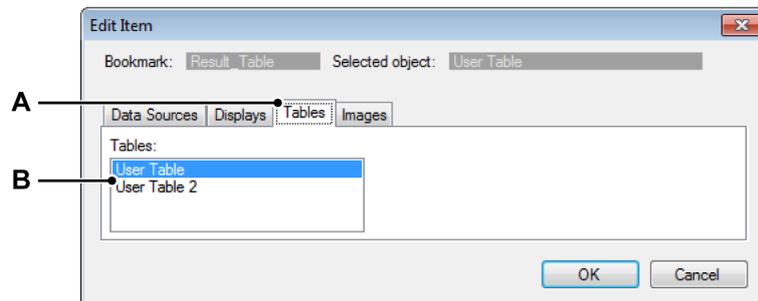
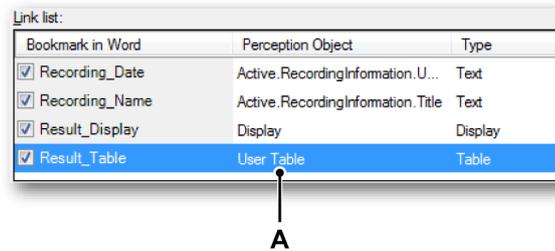


Figure 1.36: Edit Item - User tables

A Tables tab

B List of User Tables

Figure 1.36 shows all the user tables which are available in Perception **(B)**. There are no configuration possibilities in the **Edit Item** dialog for **Tables**. Select the desired user table and click **OK**. The Link list will be updated (see Figure 1.37).



Bookmark in Word	Perception Object	Type
<input checked="" type="checkbox"/> Recording_Date	Active.RecordingInformation.U...	Text
<input checked="" type="checkbox"/> Recording_Name	Active.RecordingInformation.Title	Text
<input checked="" type="checkbox"/> Result_Display	Display	Display
<input checked="" type="checkbox"/> Result_Table	User Table	Table

A

Figure 1.37: Link list with Perception Object (Type User Table)

A Perception Object

1.9.3 Build Storage Path and File Name

All bookmarks have now been linked to a Perception object.

- 1 Define the name and location of the Word file(s) to be generated:

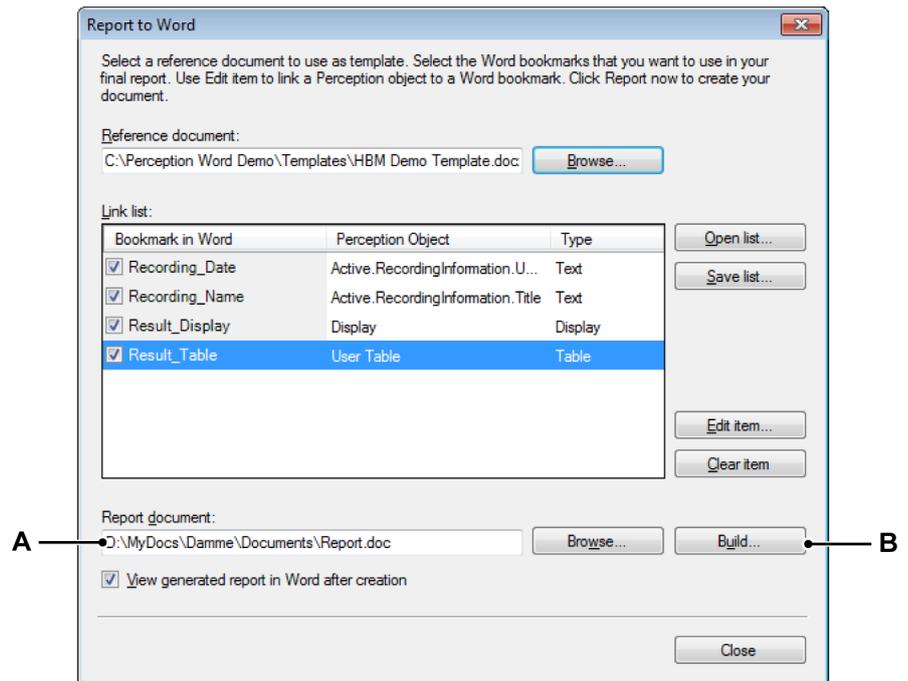


Figure 1.38: Report to Word configuration dialog

A Report document text box

B Build

Type a name into the **Report document** text box.

The name in the **Report document** field can be edited to make it possible to create a new, unique name each time a Word document is generated.

To do this, click the **Build** button.

2 The following dialog comes up:

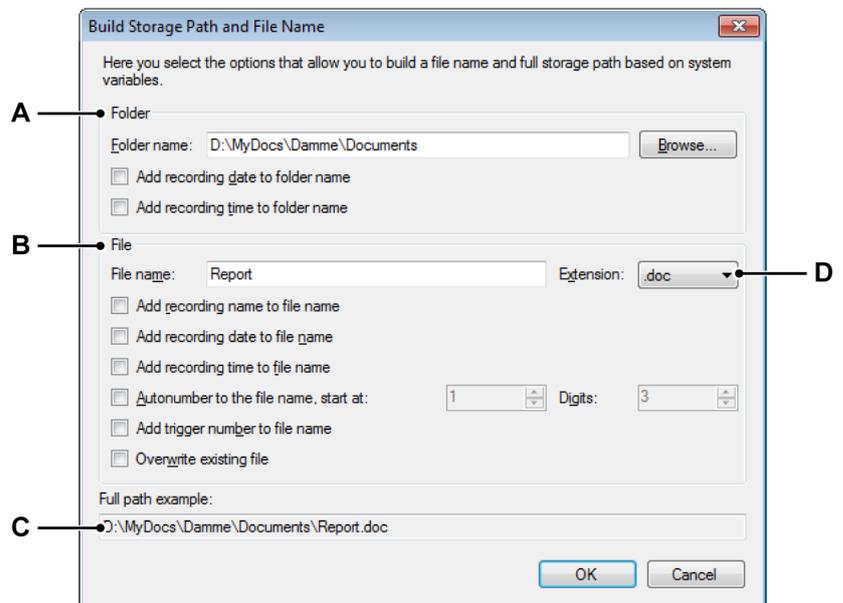


Figure 1.39: Build Storage Path and File Name dialog

- A Folder settings
- B File settings
- C Full path example
- D File name extension

A Folder Define the location or storage path of the Word file(s) to be generated. The folder name can be linked to the recording date and/or recording time. The folder name can also contain the recording date and/or recording time, if you select the respective check boxes.

B File Define the name of the Word file(s) to be generated.
The options below allow you to define a more complex filename, which can include:

- **Recording name** The *recording name*, as set in the Acquisition Control palette.
- **Recording date**
- **Recording time**
- **Autonumber** A number that automatically increases by 1 for every new file, starting at the number specified and consisting of the specified total number of digits.
- **Trigger** The number of the triggered segment that contains the data to be saved.
- **Overwrite** When this option is selected, only one file is created each time the action is initiated.

Placeholders

In addition to the options described above, you can also edit the filename. The fields described above (**B**) insert placeholders to the filename box. The placeholder is inserted on the cursor position within the text box when you select the option. You can cut and paste text in the filename box. This sets the placeholders and the file name text, if it was changed, in the desired order. A placeholder is a text identifier between percent (“%”) symbols, which is automatically replaced by another text when its value is calculated (for example, %date% will be replaced by the current date). These placeholders are documented in the Export Formats User’s Guide.

Typical placeholders are:

- %rename%
- %date%
- %time%
- %autonumber%
- %trigger%

C Full path example

D Extension The extension of the Word document to be generated.
* **.docx** is recommended.

- 3** For this example, you can select the same settings as shown in Figure 1.39. The complete setup is done and Perception is ready to generate the new Word document(s). This can be done in various ways.

Note *Creating a test to check if your configuration is OK is recommended.*

An easy way to do this is to click the **Process** button in the **Setup Process Display** dialog (see Figure 1.40).

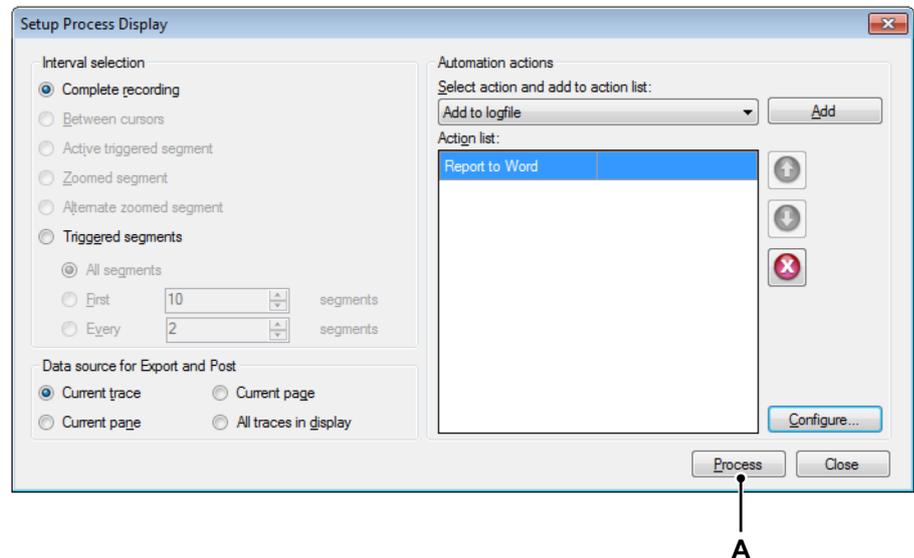


Figure 1.40: Setup Process Display dialog

A Process

If the test document is OK, you are ready to use the **Report to Word** action during the post evaluation of the recorded data. In our example, you can generate the Word report by selecting **Automation ► Process Display** from the menu bar. If the data is active in the display, you can also press the **Ctrl+M** key combination to generate the Word report.

For this example, a **Report to Word** action was added to the **Process Display** automation feature, but you can add the same action to:

- **Recording Batch Processing**
- **Automated Recording Processing**

Use the **Recording Batch Processing** to create a Word report for a (large) number of recordings you have selected. All reports will have the same layout, but the actual data, calculations, etc. are specific to each recording. Once you have created those word reports, you can use the **Word Organizer** to create an overall combined end report.

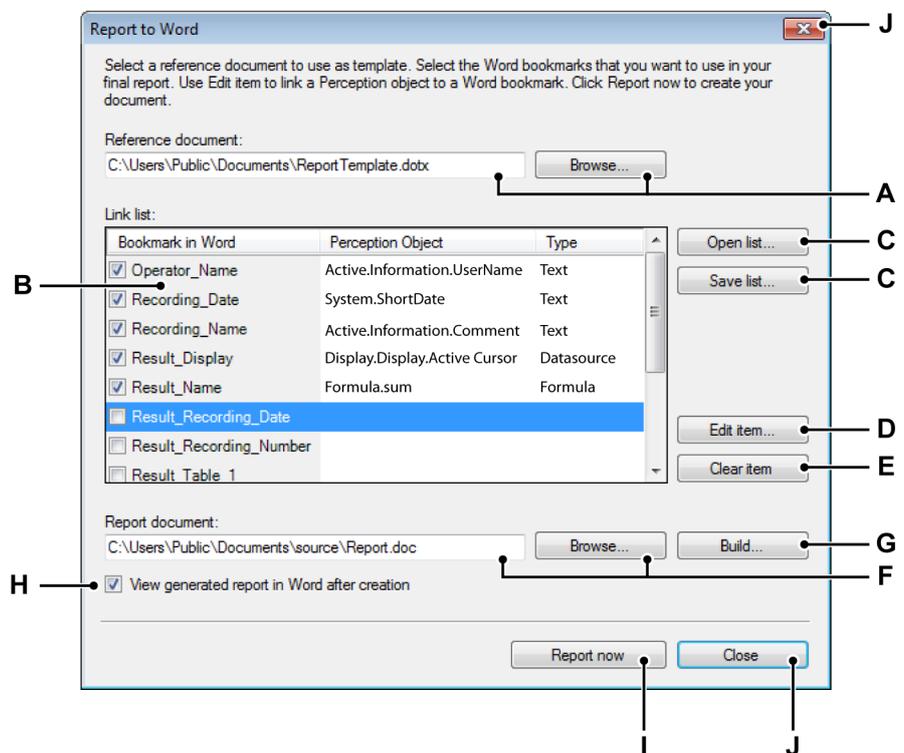
Use the **Automated Recording Processing** to create a Word report after a recording is finished automatically.

1.9.4 Report to Word using the Report now button

Build the link list

Whereas the Quick Report always creates a new empty document and places the objects underneath each other, the Report to Word feature makes it possible to place Perception objects at predefined locations in a template. By doing this, a report can be generated in tests, each with exactly the same layout. In addition to placing objects at specified locations, you can configure some objects completely. Report to Word can be started manually or automatically.

All settings are defined in the following dialog:



- A** The **Reference document** used
- B** A **Link list** containing bookmarks linked to Perception objects
- C** Buttons to **Open** or **Save** a link list
- D** **Edit item** to set up the selected item
- E** **Clear item** to clear the selected item
- F** The **Report document** that will be generated
- G** **Build** to open the **Build Storage Path and File Name** dialog

H A check box to view the report generated in Word after its creation

I Report now to start reporting

Note *The **Report now** button is not available when configuring this as an automatic action.*

J Close to close the dialog and save all settings

A Reference document The **Reference document** is located at the top of the dialog. You can either type in the name of the document directly or use **Browse...** to locate the file. The **Browse...** command will open the common File Open dialog.

B Link list When the reference document is open, the **Link list** appears. The link list has the following columns:

- **Bookmark in Word:** A list of bookmarks found in the reference document. Each bookmark has a checkmark. If selected, the bookmark will be used and replaced by the Perception object. This allows you to:
 - Create a (default) link list that has more information than required for a specific output document.
 - Open a reference document that also uses bookmarks for other purposes.
- **Perception Object:** The name of the Perception object linked to the bookmark.
- **Type:** The type of the selected object. This field cannot be edited.

C Open or Save Click **Save list...** to save the link list for future use. This command will open the common File Save dialog.
To load an existing link list, click **Open list...** This command will open the common File Open dialog.

D Edit item... to add an object or modify an existing link, click **Edit item...** This command will open the Edit Link dialog, where you can add an object, select another object and enter formatting information.

E Click **Clear item** to clear the Perception object fields. This will not delete the bookmark. Multi-selection is possible for this command.
To see the results of the report in Word, select **View generated report in Word after creation** .

- F** The **Report document** is used to define the output (result) file. You can either type in the name of the document directly, click **Browse...** to locate the file or build an output path via the **Build Storage Path and File Name** dialog. The **Browse...** command will open the common File Open dialog.
- G** **Build** to open the **Build Storage Path and File Name** dialog.
- H** Select the check box to view the report generated in Word after its creation.
- I** Click **Report now** to create the report.
- J** Click **Close** to close the dialog. All settings will be saved for later use. The settings are saved with the Virtual Workbench and therefore with the recordings created as well.

Note *For information how to insert bookmarks refer to chapter "How to add Bookmarks to a Word template file" on page 75. An example reference file can be found in the shared documents folder after installing Perception . This example file explains how to set up a reference file.*

A Bookmarks in a Word template

A.1 How to add Bookmarks to a Word template file

A bookmark identifies a location or a selection of text that you name and identify for future reference. For example, you might use a bookmark to identify the date of a recording. Each time Perception generates a Word report with this template file, the specified bookmark will be replaced by the date of the current recording.

You can assign a bookmark to a word **item**. The bookmarked item appears then in brackets [...]. If you assign a bookmark to a **location**, the bookmark appears as an I-beam. The brackets and the I-beam do not appear in printed documents.

Enabling the **Show bookmarks** option in Word is recommended if you want to add bookmarks to your template file.

- 1 Microsoft® Office 2007:
Click the **Microsoft Office Button**  and then click **Word Options**.
Microsoft® Office 2010:
Select the **File** tab and then click **Options**.
- 2 Click **Advanced**, and then select the **Show bookmarks** check box under **Show document** content.
- 3 Click **OK**.

This appendix describes four different kinds of bookmarks. These bookmarks are:

- **Insertion Point:** Marks only the location of the bookmark; size is not defined.
- **Text:** Plain text in a placeholder.
- **Image:** An image can be contained in placeholder.
- **Table:** The bookmark contains a table.

A.1.1 Insertion Point Bookmark

To add an insertion point bookmark:

- 1 Position the cursor where you want to insert the bookmark in the Word document.

- 2 On the **Insert** tab, in the **Links** group, click **Bookmark**

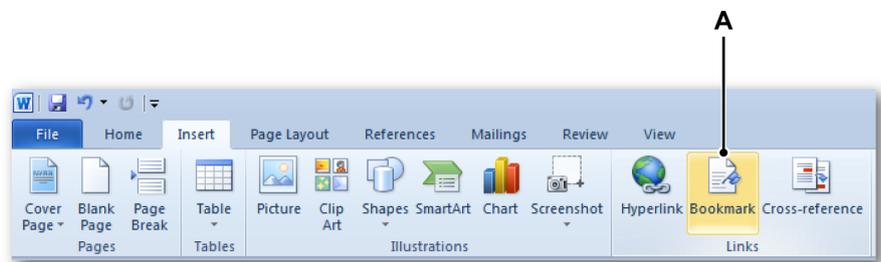


Figure A.1: Insert tab with Bookmark icon selected (Detail)

A Bookmark

- 3 In the **Bookmark** dialog you can enter the name of the bookmark, and click **Add**.

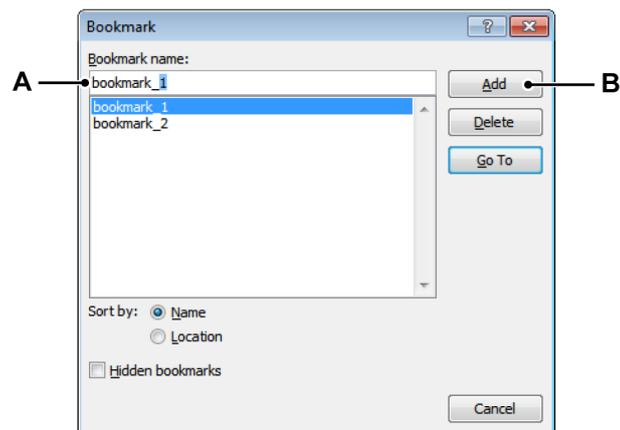


Figure A.2: Bookmark dialog

A Bookmark name

B Add a bookmark

When done, the bookmark looks like this:

I If you assign a bookmark to a location
 [selected_text] If you assign a bookmark to a word item

A.1.2 Text Bookmark

To insert a text bookmark:

- 1 Position the cursor where you want to insert the bookmark in the Word document.
- 2 Select the desired text and then click **Bookmark**.
- 3 Enter a name for this bookmark (see Figure A.2).

When done, the bookmark looks like this: [selected_text]

Note *The selected text will be replaced by the object linked to it.*

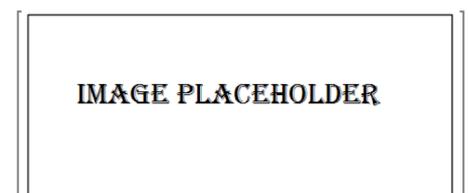
A.1.3 Image Bookmark

The Image bookmark is best used when you want to post a Perception **Display** or **Image** object into a Word document.

To insert an image bookmark:

- 1 Position the cursor where you want to insert the bookmark in the Word document.
- 2 Insert an arbitrary picture and scale it to the size you want the posted Perception object to be.
- 3 Select this image, click **Bookmark** and enter a name for this bookmark. (see Figure A.2 "Bookmark dialog" on page 76)

When done, the bookmark looks like this:



Note *If a Perception Display or Image is posted to this type of bookmark, it will be the size of the image in the bookmark. The original image will be replaced.*

A.1.4 Table Bookmark

The Table bookmark is used when you want to post a Perception **User Table** object in a Word document.

To insert a table bookmark:

- 1 Position the cursor where you want to insert the bookmark in the Word document.
- 2 Insert a table. The number of rows and columns are defined by the Perception User Table, which will be posted to this bookmark. Therefore, the number of these is unimportant.
- 3 Select the table, click **Bookmark** and enter a name for this bookmark. (See Figure A.2)

When done, the bookmark looks like this:

Note *If a Perception User table is posted to this type of bookmark it will have the same width as the placeholder. The inside columns are scaled proportionally.*

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