

Report configuration

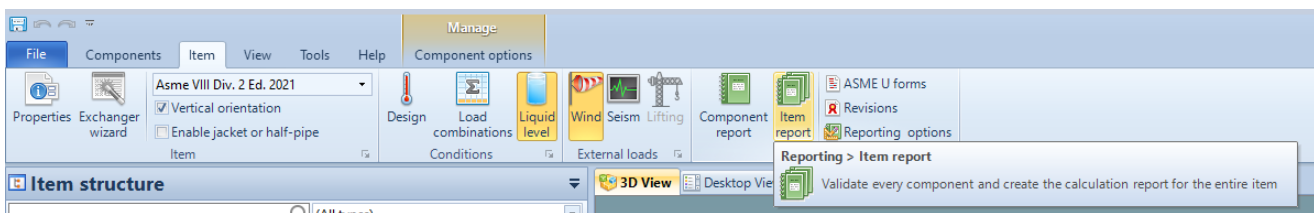
In this article we will analyze the windows that allow us to modify the report's configuration.

Online version: <https://nextgen.sant-ambrogio.it/KB642014>

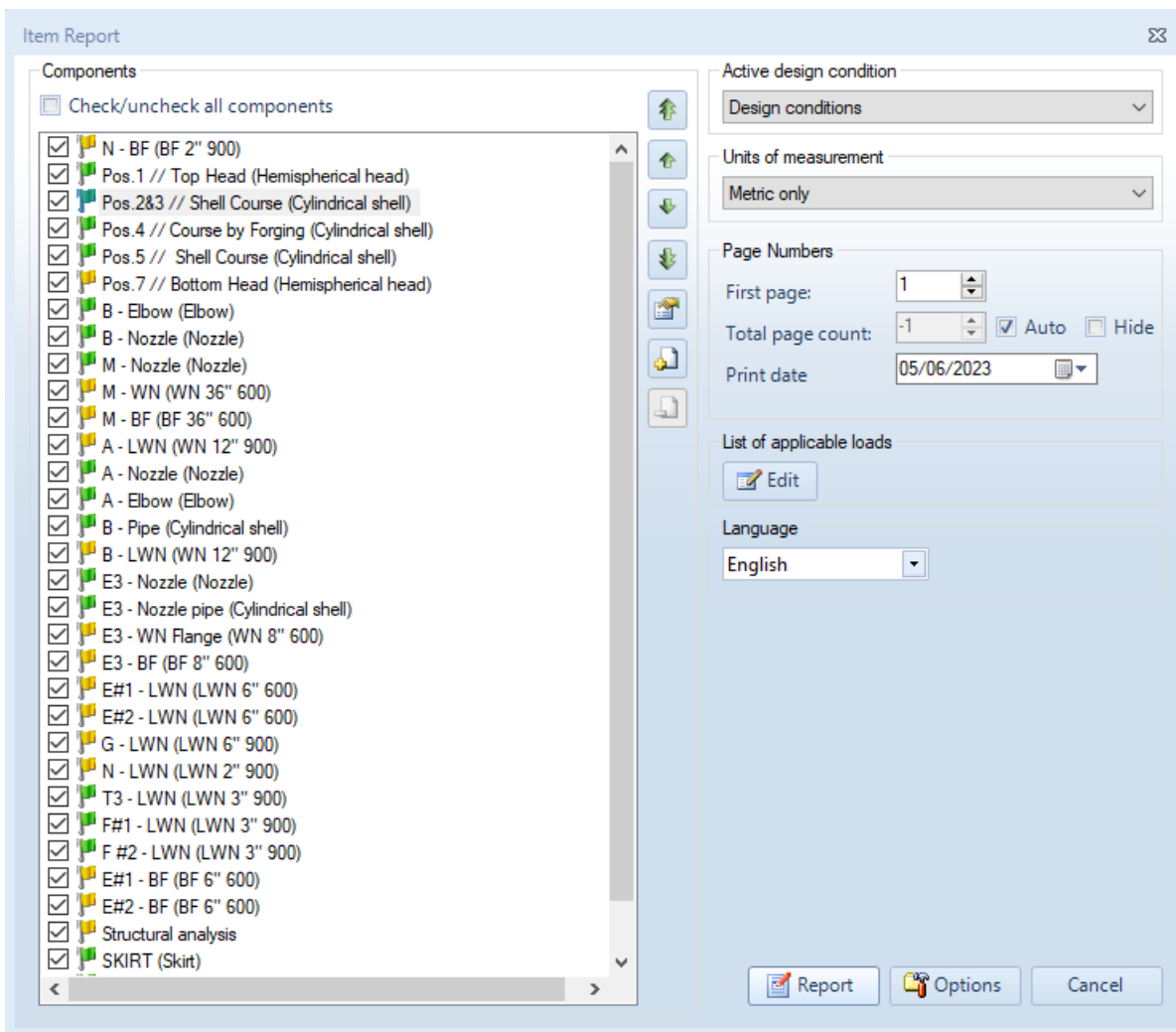
Latest update: 05 gen 2023

In this article we will analyze the windows that allow the user to configure the report by modifying the main report's properties such as the layout, the language, the units for the physical quantities, and the sections to be printed.

The most useful window for modifying the report properties is the "Item Report" window, accessible from the "Item Report" button under the "Item" tab of the ribbon bar:



"Item Report" button



"Item Report" window

Components

At the left hand side of the window the user can select the components to include in the final calculation report.

The user can move report sections upwards or downwards using the up and down arrows:



Up and down arrows for moving report sections

The user can also move a report section all the way up or down using the up and down double arrows:



Up and down double arrows for moving report sections all the way up or down

For looking at a summary of the validation details for a given component the user can click the button below:



"Validation details" button

Empty pages can be used to leave a gap in the pages numbering of the calculation report for the insertion of a portion of the final report made with an external program. The table of contents will also display the page number where such external pages will appear. A section containing empty pages can be added by clicking on the button below:



"Add empty pages" button

The user can specify the section title and the number of empty pages to insert:

"Empty pages section" window

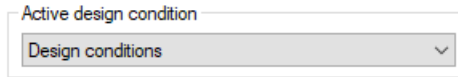
The user can use this button to remove the section with empty pages:



"Remove empty pages" button

Active design condition

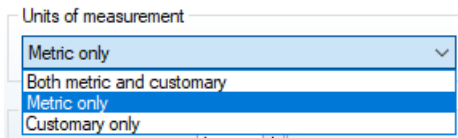
On the right hand side of the "Item Report" window, the user can specify the active design condition for which he/she wants to perform the calculation and print the calculation report (this is useful when multiple design conditions are in use):



Active design condition

Units of measurement

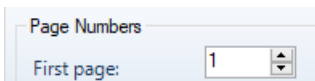
The user can also choose to print the calculation report in metric units, customary units, or both:



Units of measurement

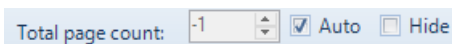
Page Numbers

The user can choose to start the numbering of the pages from a number higher than 1 by modifying the number of the first page of the calculation report:



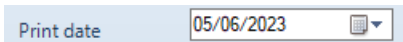
First page

By disabling the "Auto" option, the number of the total pages, that appears on the bottom of every page, can be modified:



Total page count

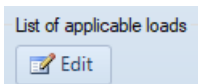
The user can modify the print date that appears on the report:



Print date

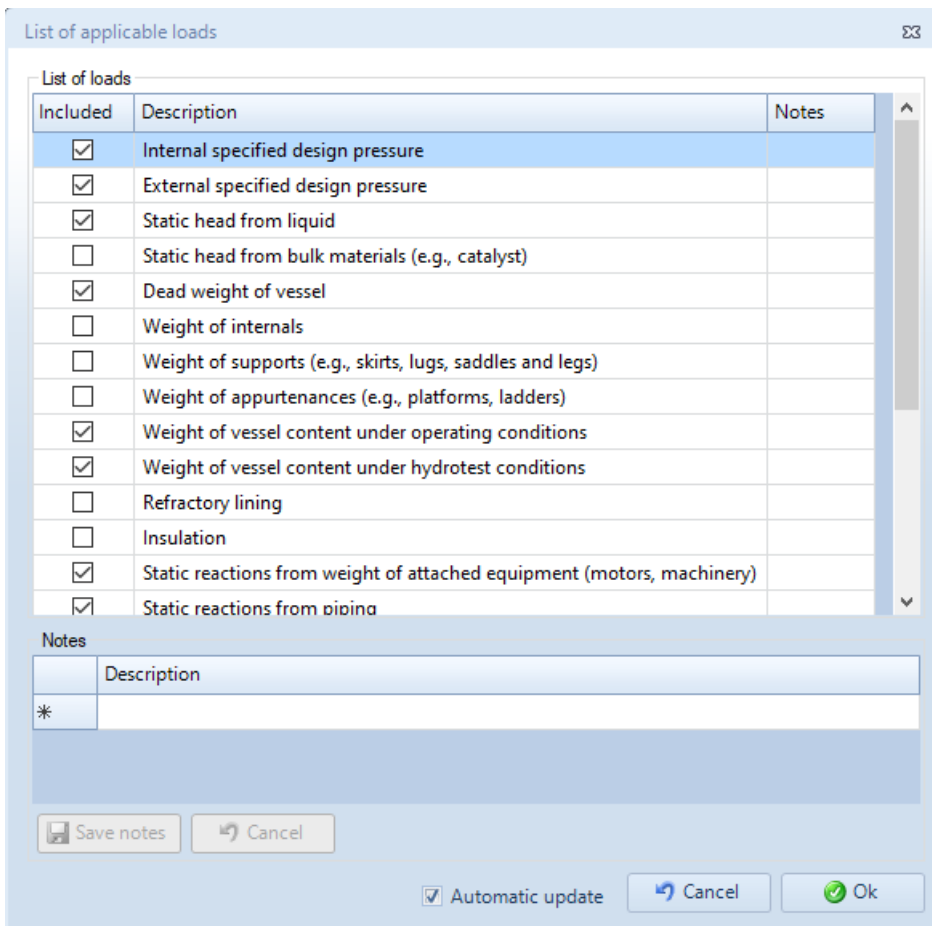
List of applicable loads

The user can customize the "List of applicable loads" section of the calculation report by clicking on the "List of applicable loads" button:



"List of applicable loads" button

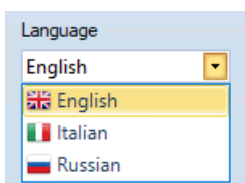
The list of applicable loads is particularly relevant in ASME calculations, e.g. according to ASME VIII Division 1 UG-22. This option should be used in combination with the "Print list of applicable loads" available in the report options, explained below.



"List of applicable loads" window

Language

The user can choose the report language from the available languages (the available languages depend on the calculation code):



Language

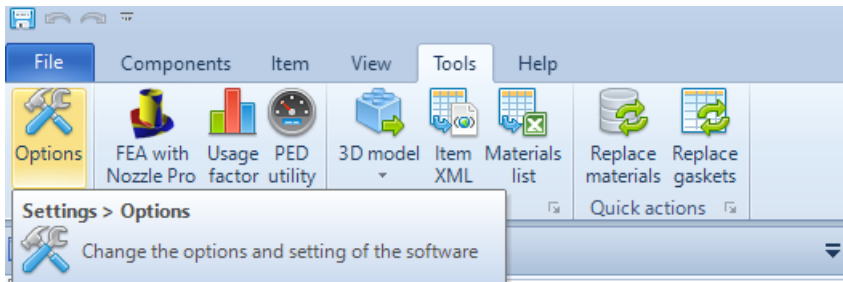
Options

The user can click on the "Options" button, to further customize the calculation report:

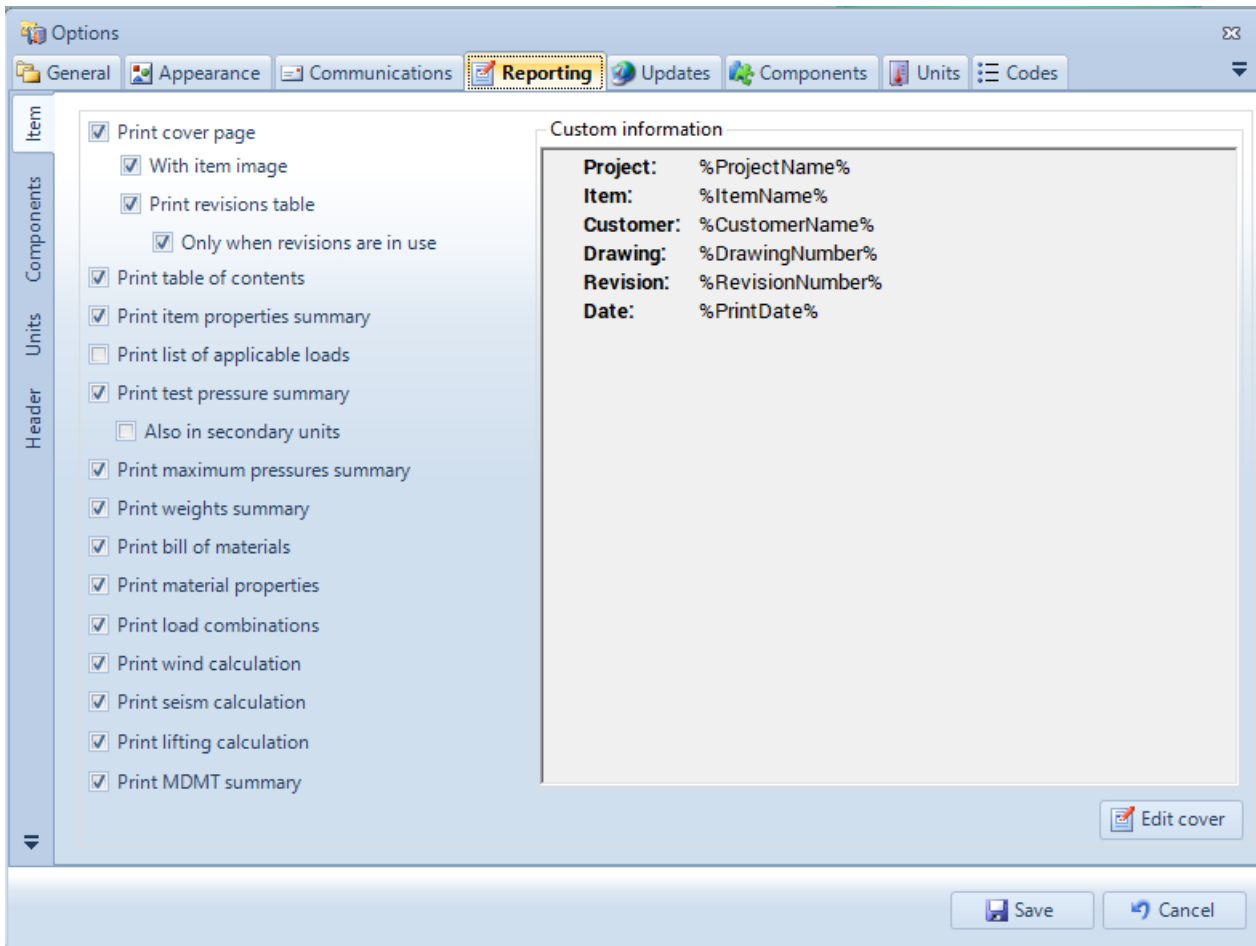


"Options" button

The same report options can be customized from the "Reporting" section of the "Options" window, accessible from the "Options" button in the "Tools" tab of the ribbon menu:

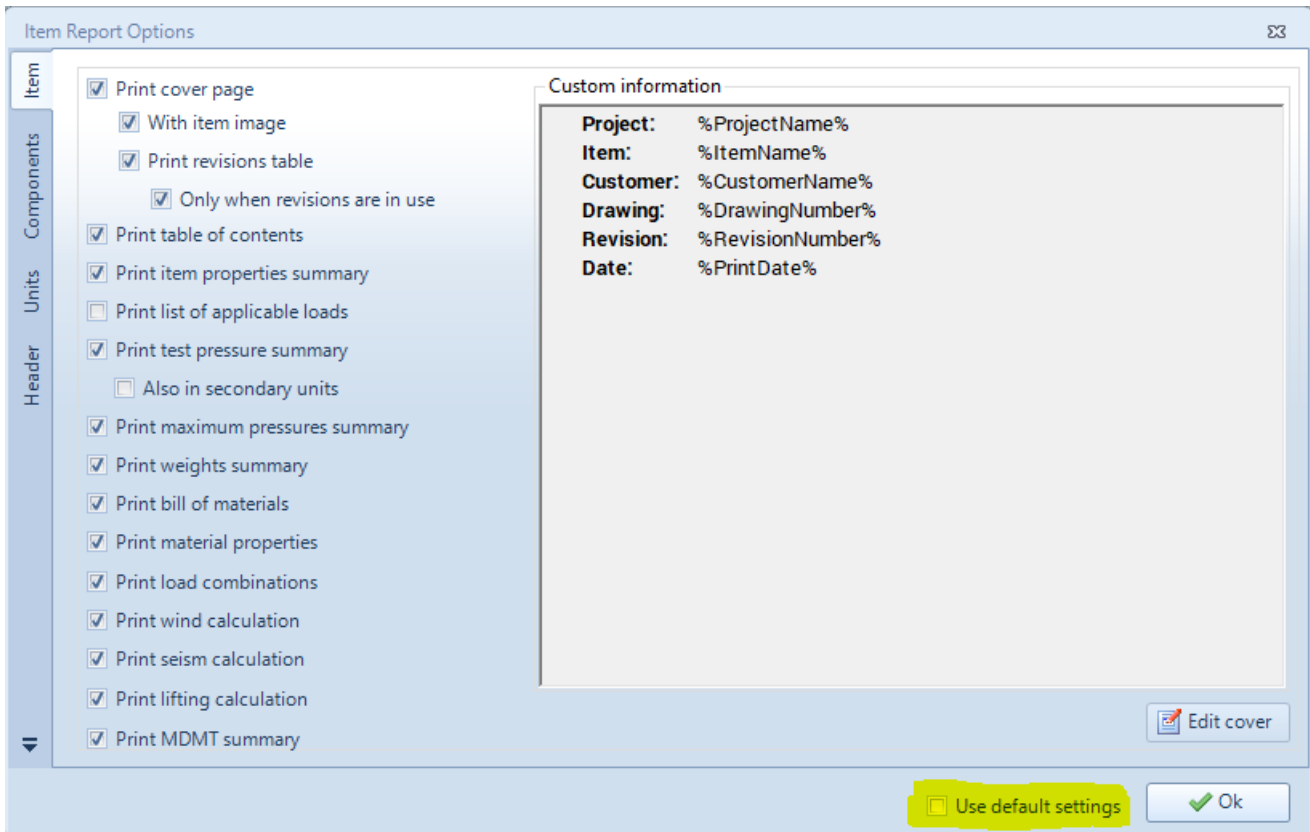


"Options" button in the "Tools" tab



"Reporting" section of the "Options" window

In the "Item Report Options" window accessible from the "Options" button of the "Item Report" window, the user can choose whether to use the software default settings defined in the "Reporting" section of the "Options" window or to personalize them.



"Item Report Options" window

Let's now analyze the properties that can be customized from the "Item Report Options" window. For most of the properties the meaning is straight forward, thus we will analyze only the properties for which an explanation is necessary.

Item

Print item properties summary

Prints a summary table of the main properties set at item level from the window "Item properties"

Print list of applicable loads

Prints a summary table of the loads considered and not considered for the item design

Print maximum pressures summary

Prints a summary table of the maximum allowable pressure values internally and externally for each component

Print weights summary

Prints a summary table of the weights considering also the load combination coefficients

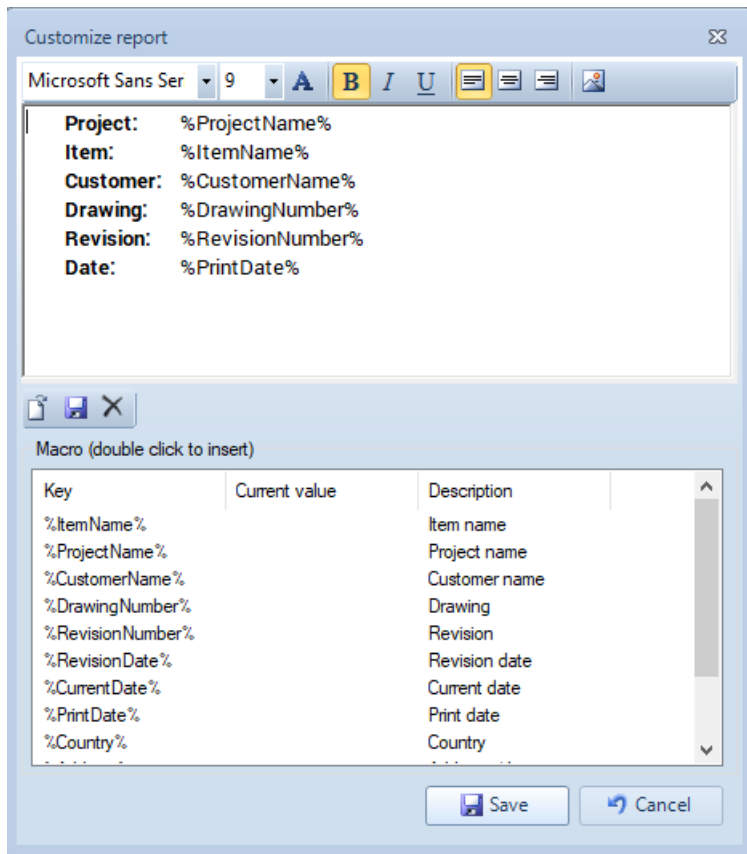
Print material properties

Prints for each material a summary table of the main material properties

Print load combinations

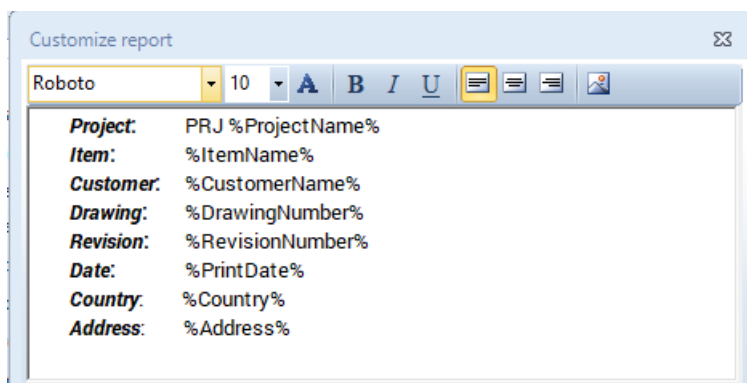
Prints a summary table of the load combination's coefficients

Edit cover



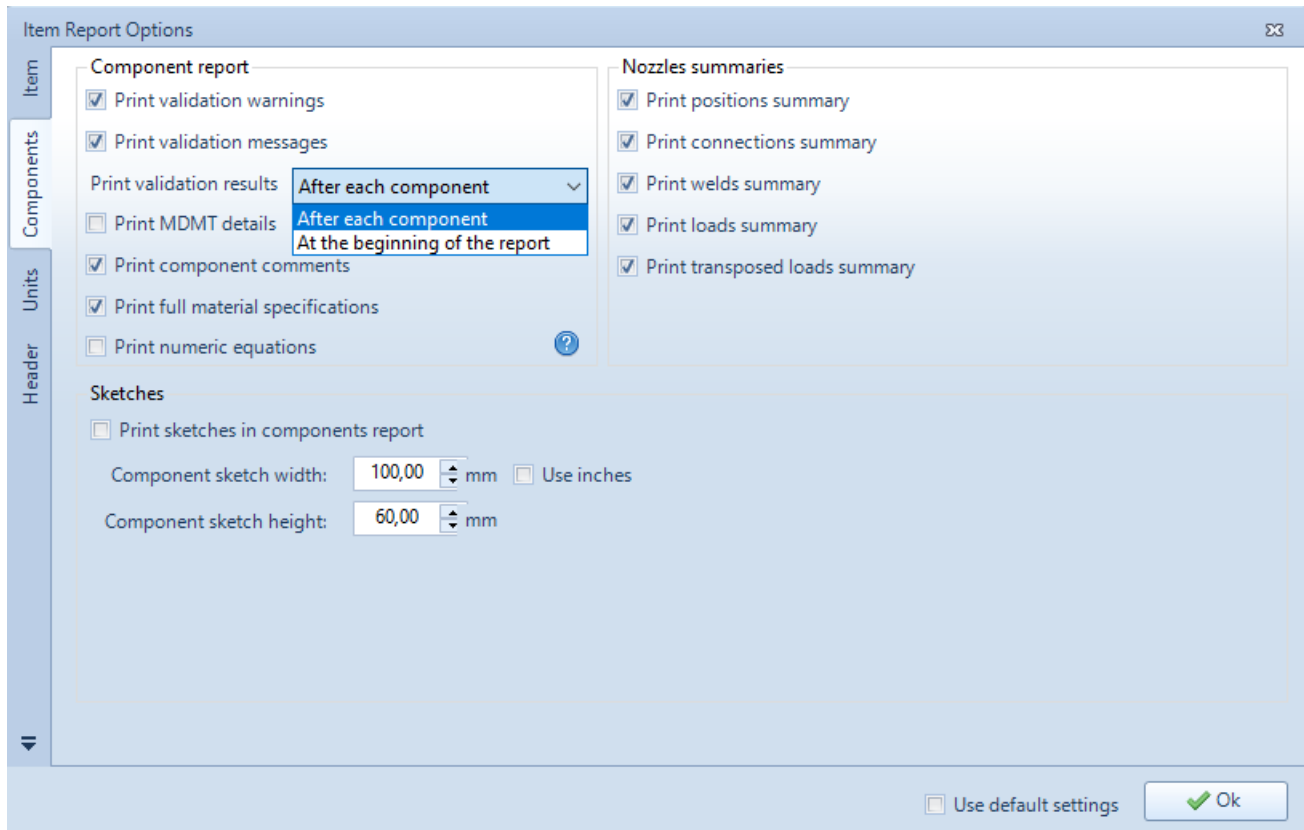
The window that allows the user to edit the report cover

The window that allows the user to edit the report cover is made of two main areas, one above and the other below. In the area below we find a list of keys, that allows the user to insert in the report various properties like the item name, the project name, etc. To do this, we shall click two times over the key that we want to insert and the key will be inserted in the area above. In the image above the current value of the various properties (item name, project name, etc) is empty since we are looking at the default report properties, if instead we looked at the properties of a single report the various properties would have as a current value the corresponding text for the given item. In the area above we can modify the text that will appear in the report. For example, if we want to add also the address of the item in the cover of the report and the text "PRJ" before the project name, we can do this like shown in the image below:



Example of a modified report cover

Components



Report options present in the "Components" tab

Component report

Print validation results "After each component" or "At the beginning of the report"

If "After each component" is selected, the validation results (errors, warnings and messages) will be printed after the component they belong to, if "At the beginning of the report" is selected, the validation results (errors, warnings and messages) of all the components will be printed in a separate section at the beginning of the report.

Print MDMT details

Only for ASME calculation codes: prints a section related to the Minimum Design Metal Temperature

Print component comments

For each component prints the comments made at the "Reporting" section of the component's design window

Print numeric equations

Prints the equations substituting the symbols of the variables with their numerical values

Nozzles summaries

Print positions summary

Prints a summary table of the nozzles positions relatively to the components in which these nozzles are inserted

Print connections summary

Prints a summary table of the connections between nozzles and flanges

Print welds summary

Prints a summary table of the welding data for the nozzles

Print loads summary

Prints a summary table of the loads applied at the nozzles

Print transposed loads summary

Prints a section that how the nozzle loads are transferred at the base

Units

Item Report Options

Use calculation code default units

Pressures

Report pressure unit (metric) MPa

Report pressure unit (customary) psi

Pressure unit decimals (metric) 2

Pressure unit decimals (customary) 1

Stresses

Report stress unit (metric) MPa

Report stress unit (customary) psi

Stress unit decimals (metric) 2

Stress unit decimals (customary) 1

Temperatures

Temperature unit decimals (metric) 2

Temperature unit decimals (customary) 2

Lengths

Length unit decimals (metric) 2

Length unit decimals (customary) 3

Format

Decimal separator .

Thousands separator

Reset standard values

Use default settings

Ok

Report options present in the "Units" tab

The properties present in this section allow the user to choose the metric and customary units of the various physical and mechanical quantities and the number of decimals for these units.

The user can also choose to use the calculation code default units, leaving the choice of the units to be automatically done by the software.

Header

Report options present in the "Header" tab

The properties present in this section allow the user to edit the header of the report.

Logo

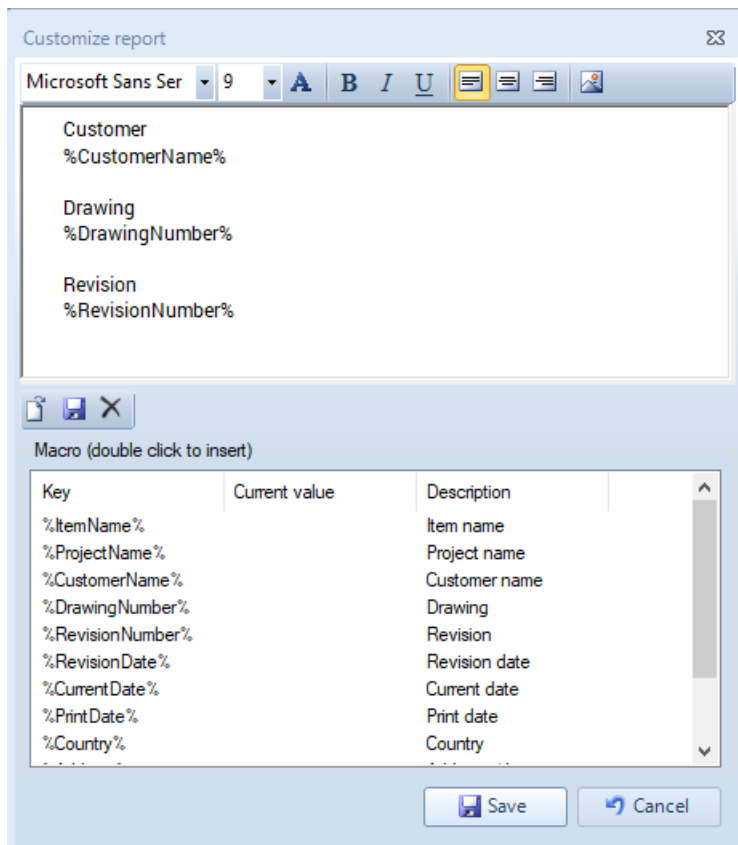
By clicking in the rectangle on the left upper part of the window the user can choose an image to put as a logo in the report header.

Header central part

The header central part contains 6 rows that can be compiled by the user with the desired text

Header right part

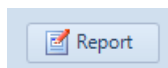
In the right part of the header the user can add the various properties of the item and of the project using the keys mechanism described in the "Edit cover" section. If the user clicks at the "Edit" button a window appears that allows the user to modify the text.



The window that allows us to modify the right part of the header

Report

To produce the final calculation report, the user shall click the "Report" button:



"Report" button