Unilab Page Builder

User Manual

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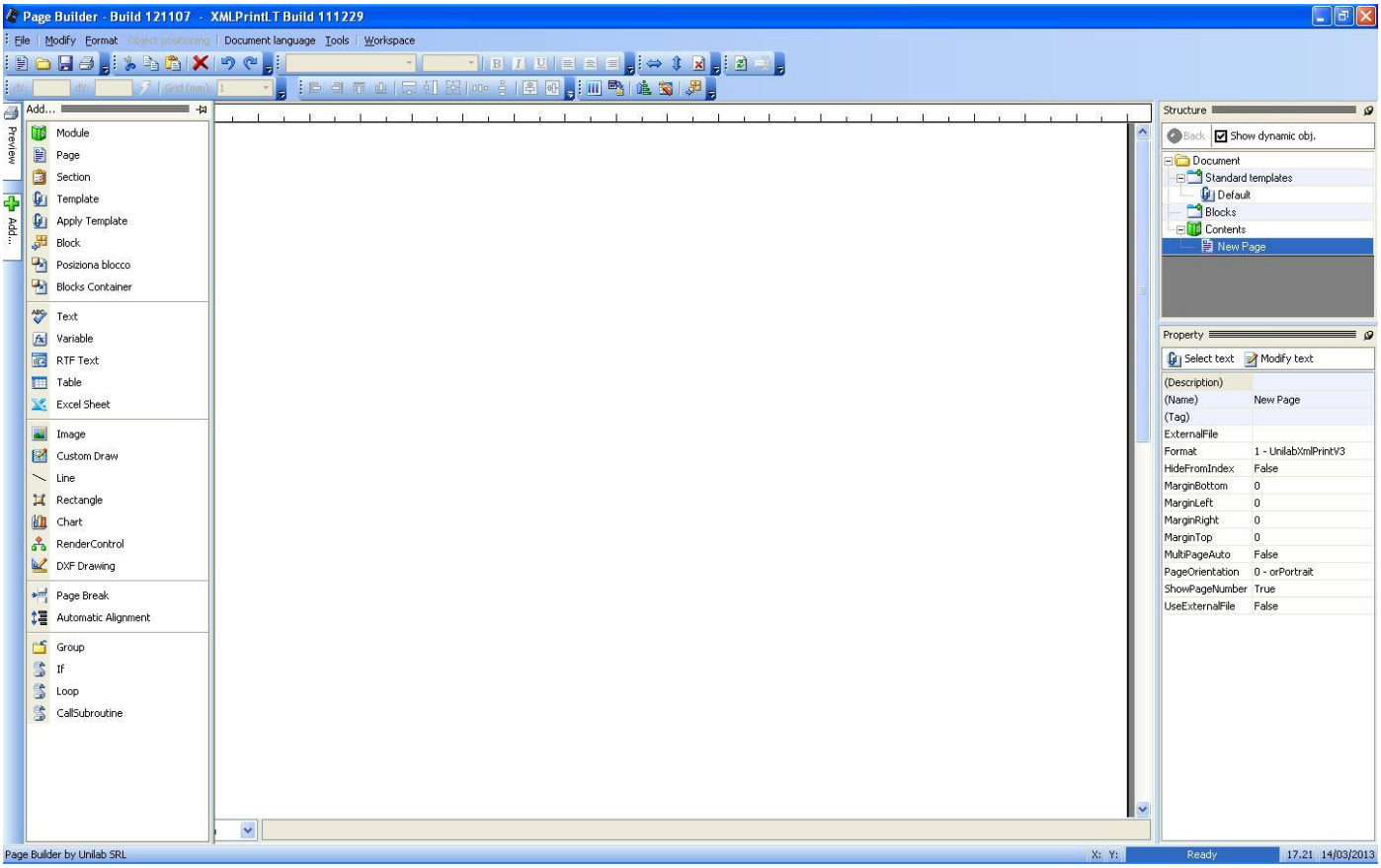
Introduction

Page Builder is the software for the design of the Unilab prinout pages. It includes an engine generation of printout pages of the latest generation fully integrated with the most important software Unilab SRL, such as coils, xShark, Units Selector, etc.. This software allows the customization of the printout pages of software Unilab SRL through a simple user interface and easy to access.

Comparable to a word processor such as Microsoft Word, Page Builder, however, has one fundamental difference: the placement of objects. For example, Microsoft Word subdivides the documents into paragraphs, and the placement of each paragraph is relative to previous paragraph. Page Builder instead, since it is designed to produce technical printout pages, uses absolute positioning: for each label text, image, etc. will need to specify the position (X, Y) relative to the left corner of the document, expressed in mm.

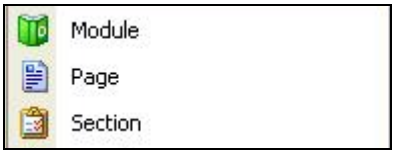
When using Page Builder, the main screen looks like this:



In the upper part, we have the menus and toolbars. In the left window (usually a hidden callable by hovering over the "Add" button) we find the list of objects that can be inserted in a page or in the document structure. Instead, the right panel shows in the upper position, the structure of the document or the selected page (which will be discussed in the next chapter) and in the power part, the properties of the selected object.

Structure of the documents of Page Builder

Page Builder saves the printout pages with extension "qtx". Unlike most word processors, such files have a well defined structure: they are divided in modules / sections / pages.

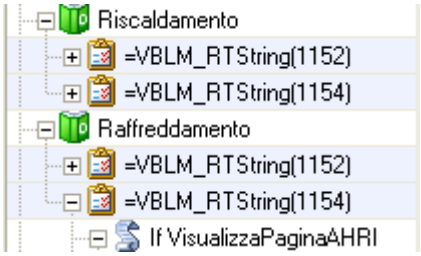


This subdivision is a logical subdivision of the document, and it has no direct effect on the printout pages however, it serves to the program that uses the engine Page Builder to organize in a clean and orderly mode the printout pages. Let's take an example.

Coils is a design program that allows you to calculate coils heat exchangers in the modalies:

- Heating
- Cooling
- Condensation
- Direct expansion
- Steam
- Pump Evaporator

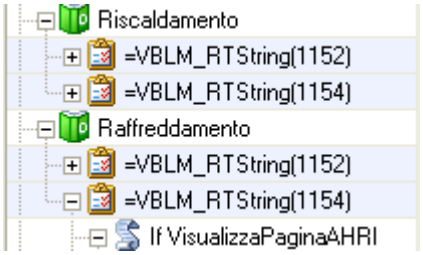
Each of these modalities will have printout pages very different from each other, therefore within the document QTX of Coils there will be 6 modules, one for each calculation modality of the program.



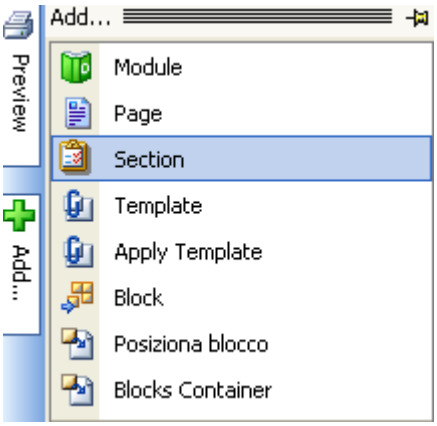
The insertion of a module is very simple: you just need to click on the "Add" and then select "Module" from the list.

The insertion of at least one module is required.

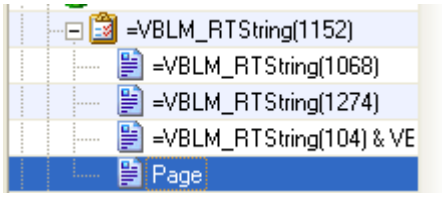
In Coils, for each calculation modality, very detailed printout pages and the other easier printout pages have been included. To create this subdivision the Sections have been used:



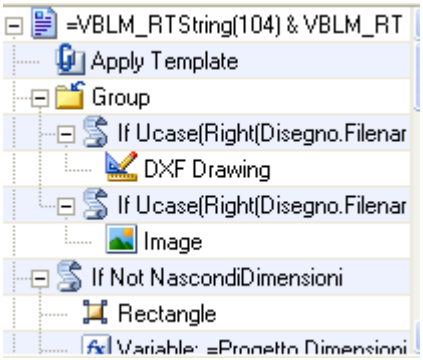
You can create as many sections you want, none as well: it is possible to insert the printout pages directly on the module. To create a section, it is sufficient to select the module in which you want to insert the section in the panel "Design Document" (which, as explained in the introduction, is to the left of the dialog Page Builder), please click on the "Add" and then select "Section" from the list:



Finally, the elementary object of printout of Page Builder is the "Page". In this element you can place all the graphic elements that you want to see being printed:



When you double-click on a page in the "Structure" panel, all the graphic elements contained in it are displayed:



Clicking on the "Back" button to return to the document structure.

The concept of page within Page Builder is a logical concept and not a physical one too, because you can put inside this element some "page breaks" when the target program will display this page element, in reality two or more pages will be generated, depending on how many page breaks are inserted.

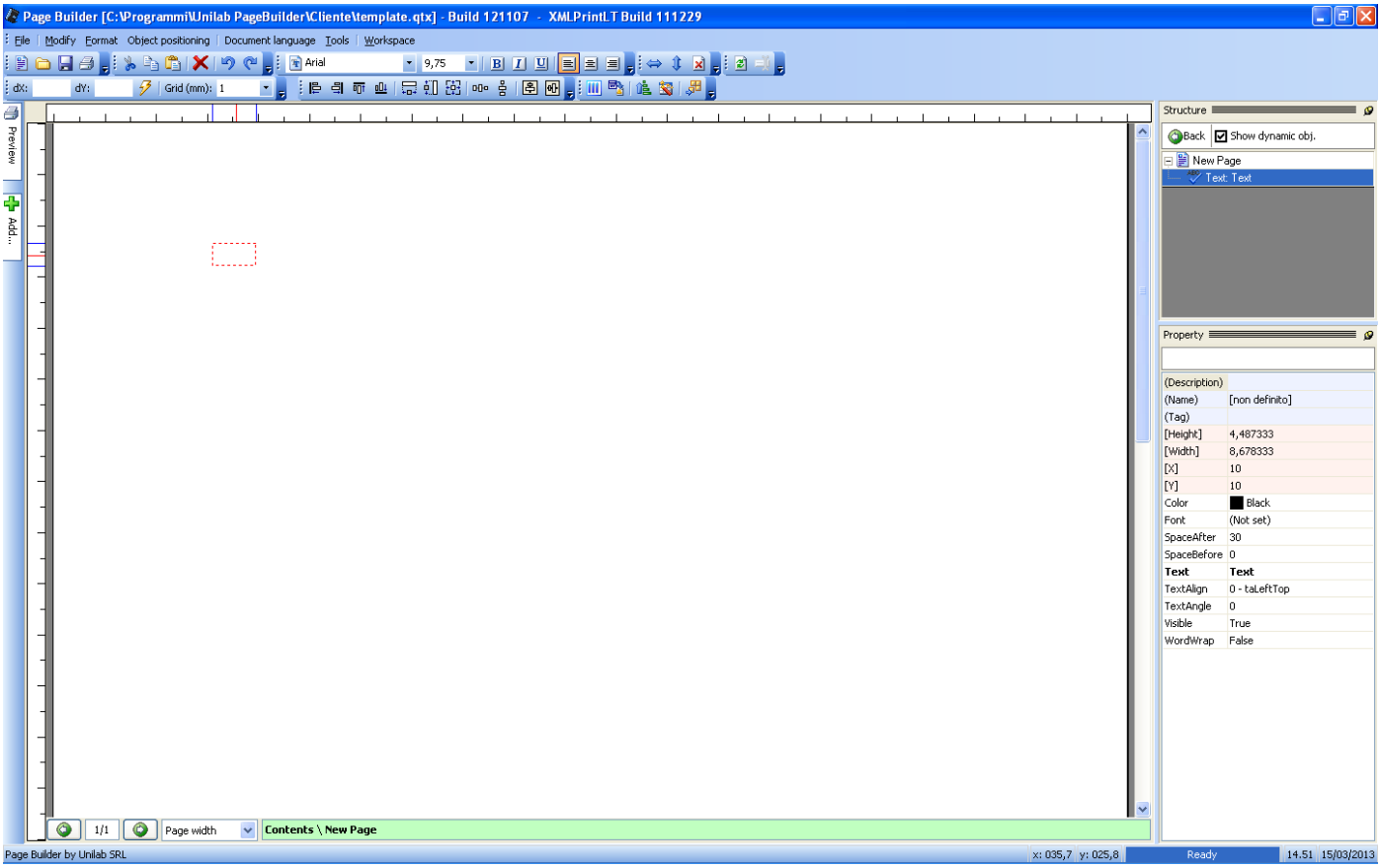
Among the properties that you can specify there is the page's orientation: a page can be vertical ("orPortrait") or horizontal ("orLandscape").

What are the objects that you can insert into a page?

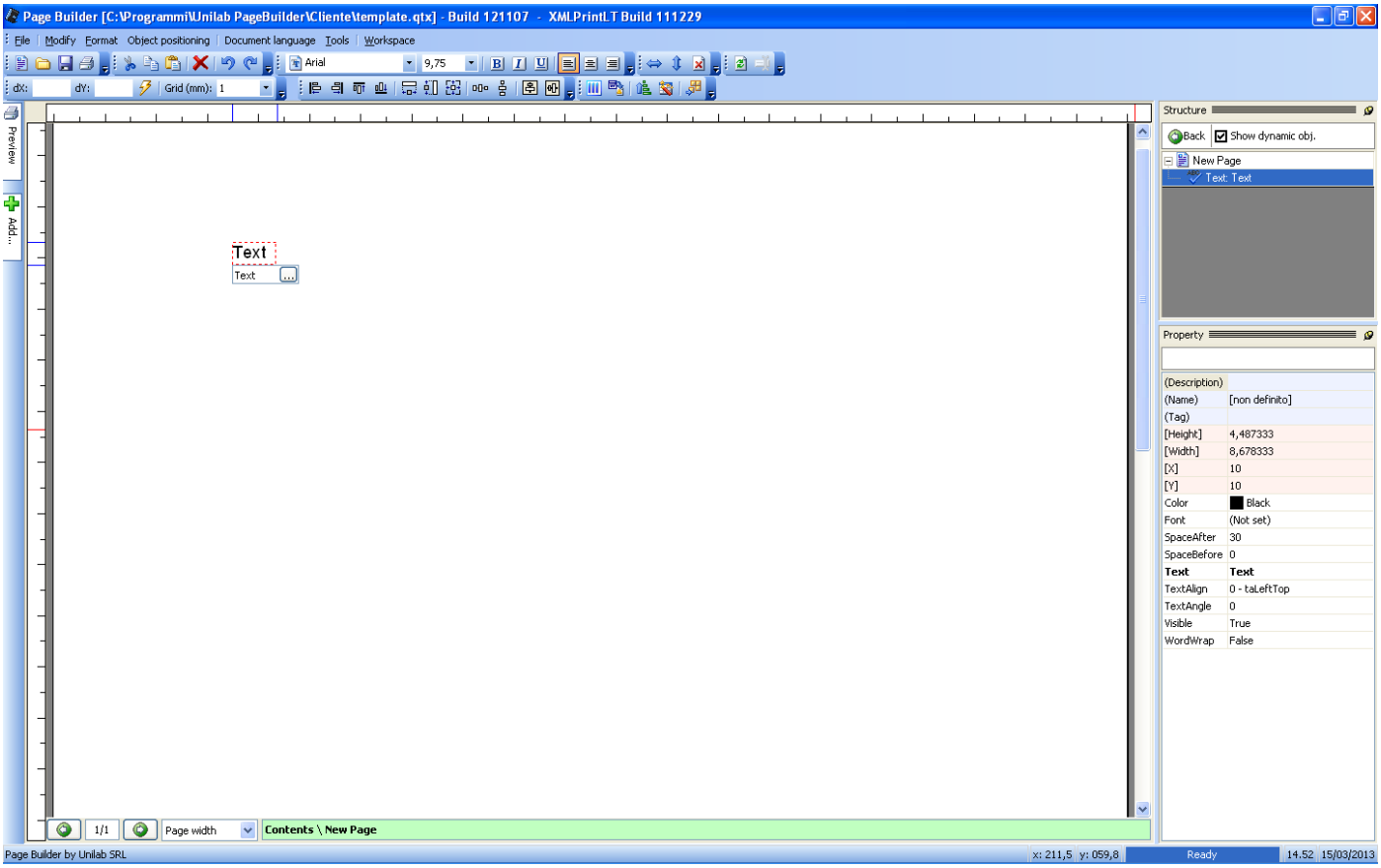
Main graphic objects insertable in a page

The insertion of new objects within a page is through the panel "Add" on the left of the window of Page Builder. With this panel, you can either add graphics elements, that you see in the printout stage, logic elements, which allow to change the structure of the document, group items into a single group, show or hide certain elements, etc.

When you insert a new graphic element, clicking on the appropriate button, the program will place this element in the page, aligning it to the grid (the default step is 1 mm):



Once you have chosen the location where the insert, click to confirm it:



Common properties and formulas

All the objects insertable in the document or in the pages have some common properties:

- "Name": this field represents the name of the object. If the object is a page, a module a section, a template etc.. this name will appear in the document structure and it serves to retrieve the object when necessary.
- "Description": it represents a description given to those who want to edit the document. Here you can also specify the notes, such as "DO NOT CHANGE".
- "Tag": it represents a code or a label that will be used by the program that will display the printout pages to recognize the object.

All graphic elements instead, in addition to the properties given above, have other common properties:

- "X" and "Y": they represent the position (X, Y) of the object in the page starting from the upper left. They are expressed in mm.
- "Width" and "Height": they represent the sizes of the rectangle where the object is contained and they are expressed in mm.
- "Visible": to visualize or to hide the obiect in the printout page.

Most of these properties can be parameterized by a formula, which must respect this format:

=[formula] or **==?[formula]?**

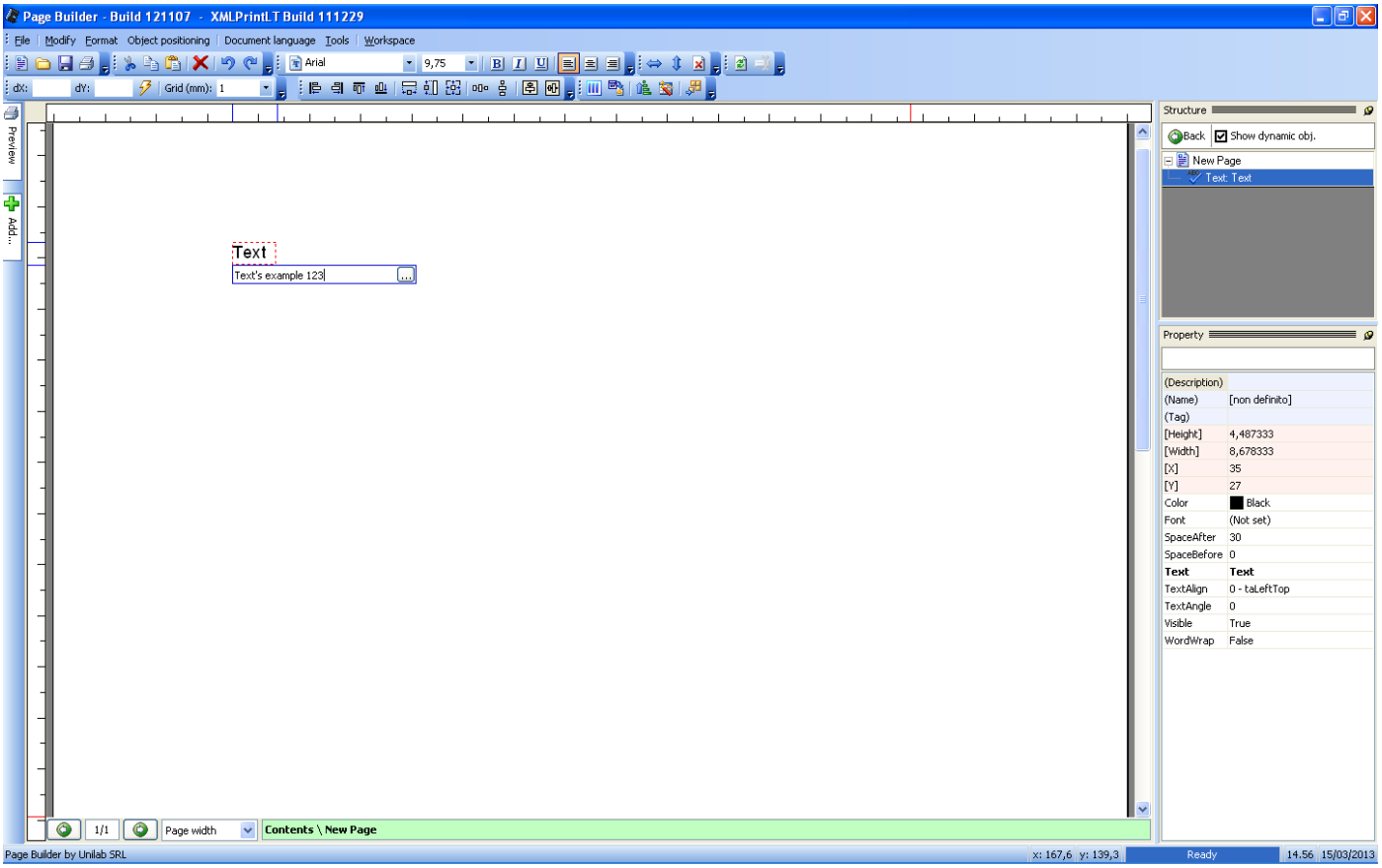
Following will be better specified how to use the formulas.

Now let's see how to insert the main objects.

Text

Within the page it is possible to insert some simple labels of by clicking on the element "Text" in the "Add":

Once inserted,as explained above, you will see a field below the text element inserted that allows you to modify the content:



Pressing the "Enter" you confirm the new content of the label text.

Among the properties that can be modified, we find:

- "Color": the text's color
- "TextAngle": to specify the text rotation in degrees * 10, and to put for example the label in vertical
- "WordWrap": if set to "true", it allows you to specify the sizes of rectangle in the in which the text will be inserted, which can be positioned at the center, right, up, down, etc.. If set to "false" instead of the size of the rectangle are automatic.

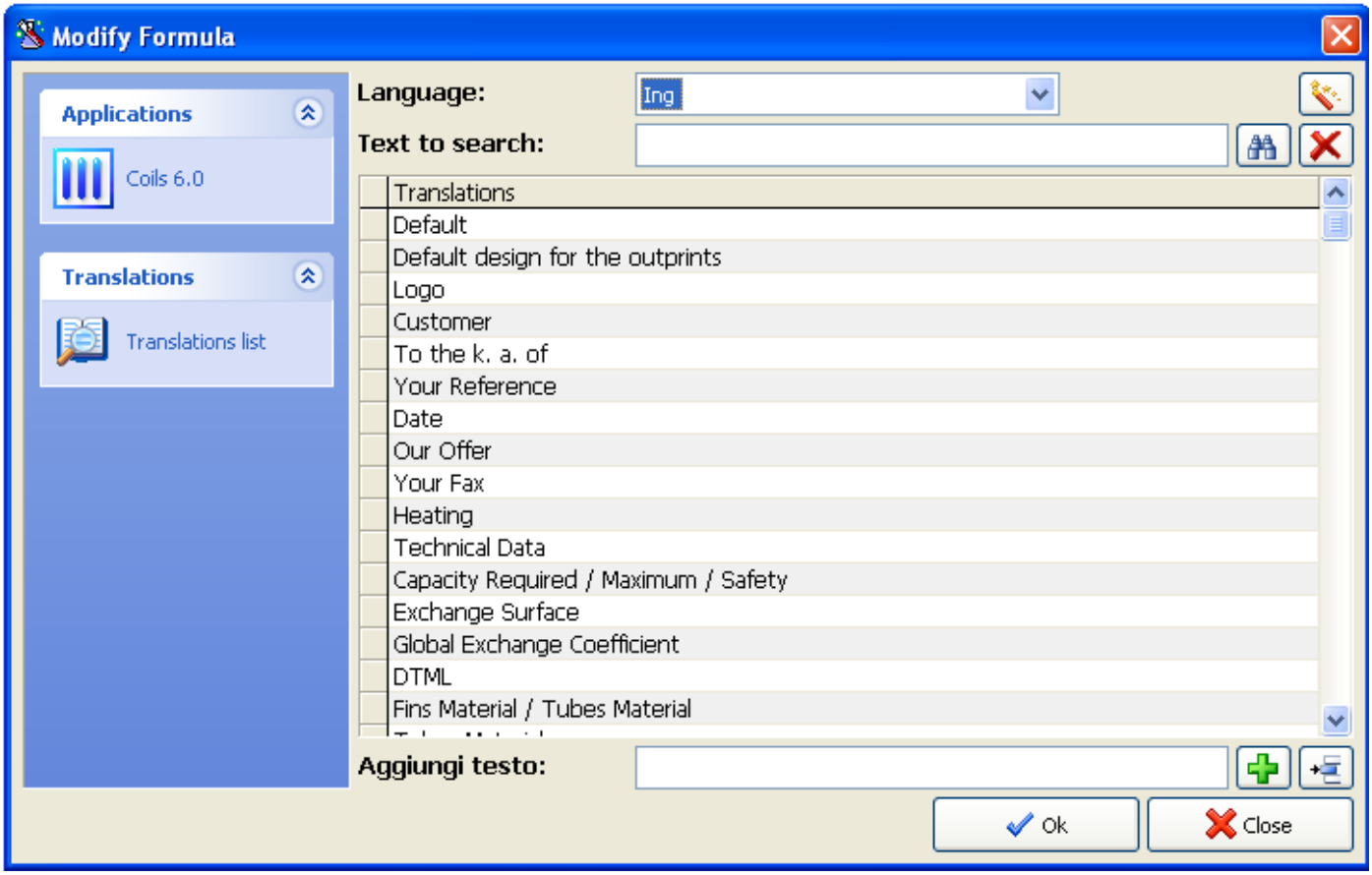
In addition, through the upper toolbar, you can change the formatting of the selected element by changing the font, size, alignment (if the text is inside a larger rectangle, specified by hand with the WordWrap property), etc.:

Finally, when you change the label text, you will see a "..." button next to the writable field:

Text

Text ...

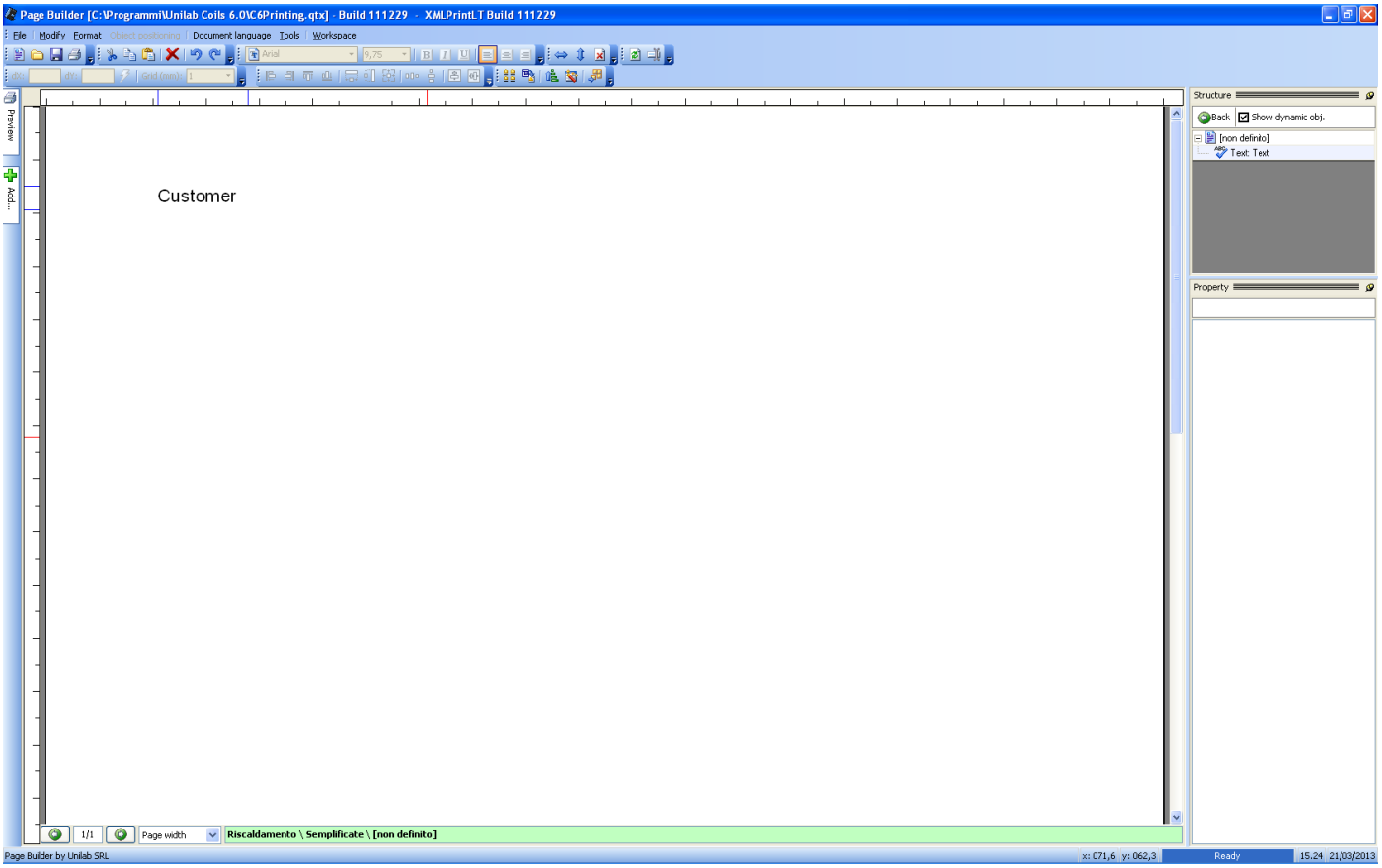
Clicking on this button, you get a mask that allows you to assign to the text an existing translation or a formula:



If you want to assign the text to the label "Customer" for example, simply select the line "Customer" from the table and click "OK".

Customer

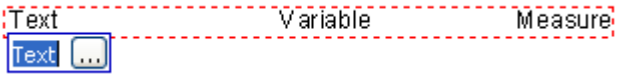
At this point, when the document will be displayed in the target program, the field "Customer" will be displayed in the language selected by the user:



Through the same window, you can assign a formula to the text field, making it dynamic.

Text with variable

Unlike text label before seen, "Text with variable" is an element that incorporates three elements: a description, a variable (derived from the program you are designing the printouts for) and the corresponding unit of measurement:



To insert this element, just click on the "Variable" in the "Add":

The coordinates (X, Y) of this object are are referred corner to the topleft of the label of the description, which acts as a reference point for the entire object. To move the variable or the unit of measurement, we must act respectively on the property "VariableDX" and "Measure DX", representing the offset in mm with respect to "X". All three elements will be on the same line, necessarily.

The properties of this object are subdivided according to which of the three fields will changed. All properties refered to the label of the description start with "Text" and are:

- "Text": the text cointaned in the label of the description
- "TextAlign": the label alignment of the description
- "TextColor": the text's color
- "TextVisible": the visibility of the label.

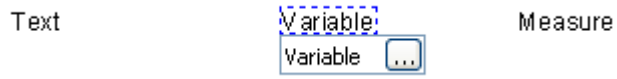
All properties refered to the label of the variable start with "Variable" and are the same views as above for the description, with the addition of:

- "Variable": the variable to visualize, which is usually a formula in the above format
- "VariableDX": the offset respect to "X" of the object in mm
- "VariableFormat": the format of numeric value contained in "Variable". This can be, for example: "#0.00" to display a number with two decimal places; "#0" to display a number with no decimal places; "#,##0" to display a numeric value with a thousands separator; any combination of these values.

All properties refered to the label of the measuring unit start with "Measure" and are the same views for the description above, with the addition of:

- "Measure": the unit of measure to display, which is usually derived from formula
- "MeasureDX": the offset respect to "X" of the obiect in mm

Doing click on the single element, as seen in Figure:



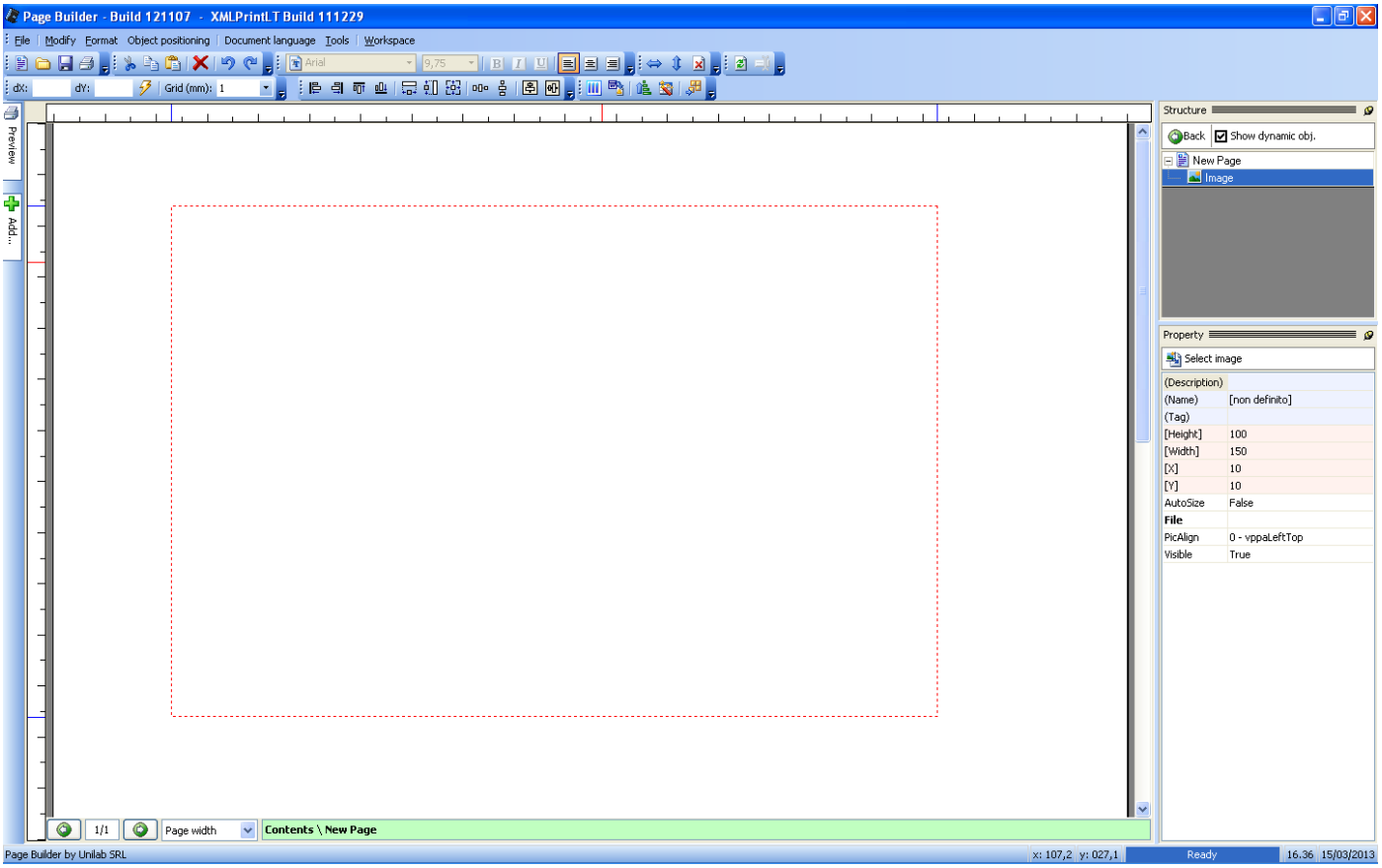
You can change the formatting of the selected element by changing the font, size, alignment, etc.:

The operation of the "..." button is the same as above: through the displayed window you can assign for example a translation to the field description, a formula to the field variable and its units of measurement.

Image

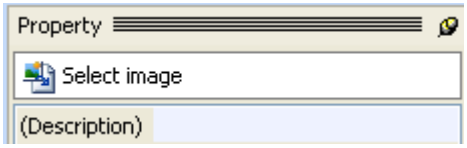
To add an image to a page printing, please do click on "Image" on "Add":

Once this is done, place the new object within the page with the mouse:

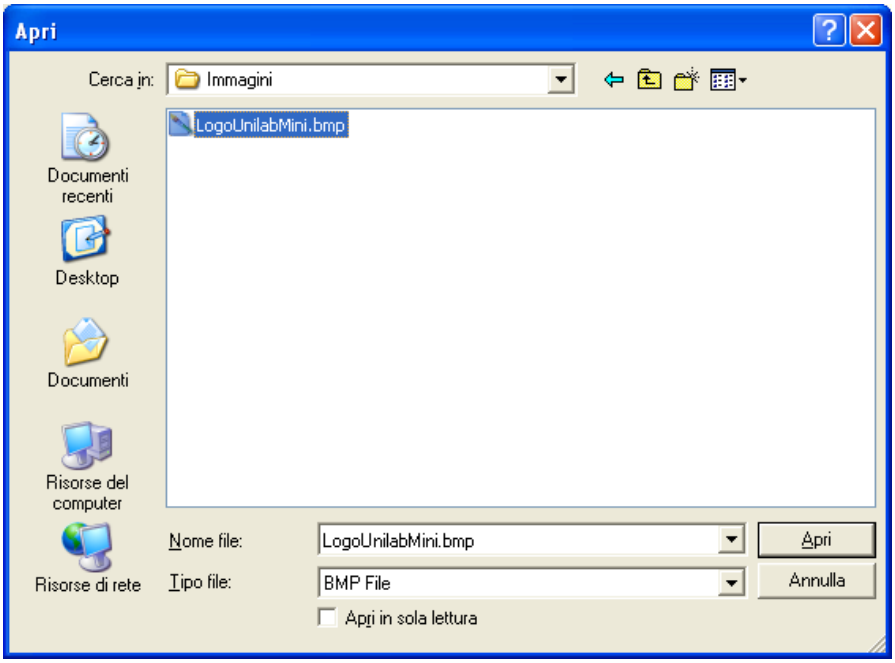


To specify which image to display, change the property "File" setting the relative path of the image file choosed. This means that if all the image files must be in the same folder where the file QTX is located or in a subfolder.

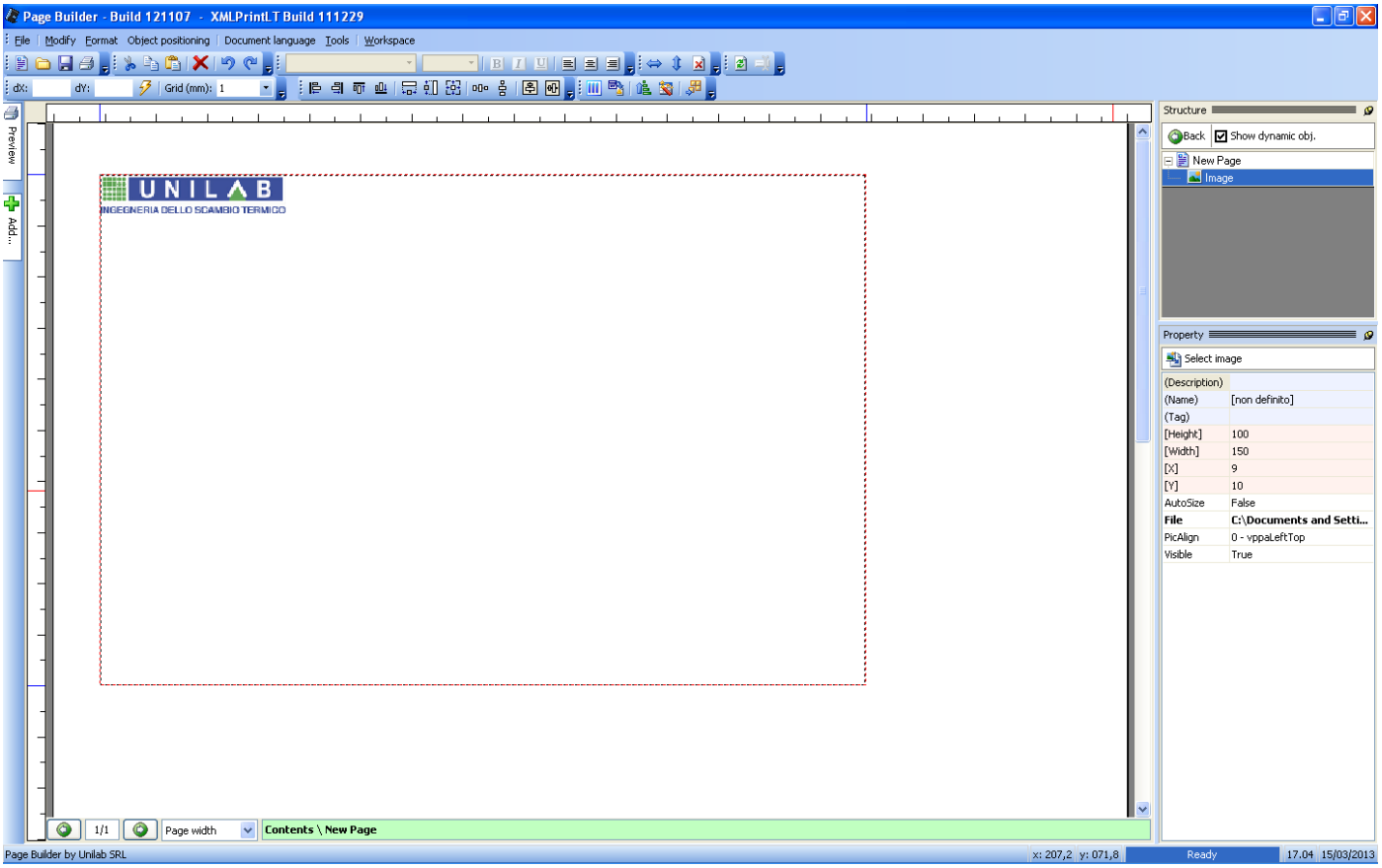
For example, if the property "File" is equal to "Image.jpg ', the JPG file must be in the same folder as the QTX. If the property "File" is equal to "Images \ Image.jpg ', the JPG file must be located in the subfolder" Images "which is in the same folder of the file QTX. To select the correct path, you can use the "Select Image":



Which will lead to a file selection window:



By clicking on "Open" the file will be assigned to the image that we are changing:



In the case of the object "Image" is essential to specify the image size in mm through the property "Width" and "Height". The image object indeed acts like a text object with the property "WordWrap" (see above) because the design will be placed within the rectangle specified and aligned according to the property "PicAlign":

vppaLeftTop	It aligns the upper left corner of the rectangle.
vppaCenterTop	It aligns the center and at the top of the rectangle.
vppaRightTop	It aligns upper right corner of the rectangle.
vppaLeftBottom	It aligns the bottom left corner of the rectangle.
vppaCenterBottom	It aligns the center and the bottom of the rectangle.
vppaRightBottom	It aligns the corner at the bottom right of the rectangle.
vppaLeftMiddle	It aligns the left and center of the rectangle.
vppaCenterMiddle	It aligns the center and the center of the rectangle.
vppaRightMiddle	It aligns the right and center of the rectangle.
vppaClip	It aligns the center of the rectangle, both vertically and horizontally.
vppaZoom	It fills the rectangle keeping the proportions.
vppaStretch	It fills the rectangle, extending the image if necessary. It does not keep the proportions.
vppaTile	It fills the rectangle repeating the image as if they were tiles (useful for creating backgrounds).

Here are some examples of alignment:

vppaLeftTop

vppaCenterMiddle

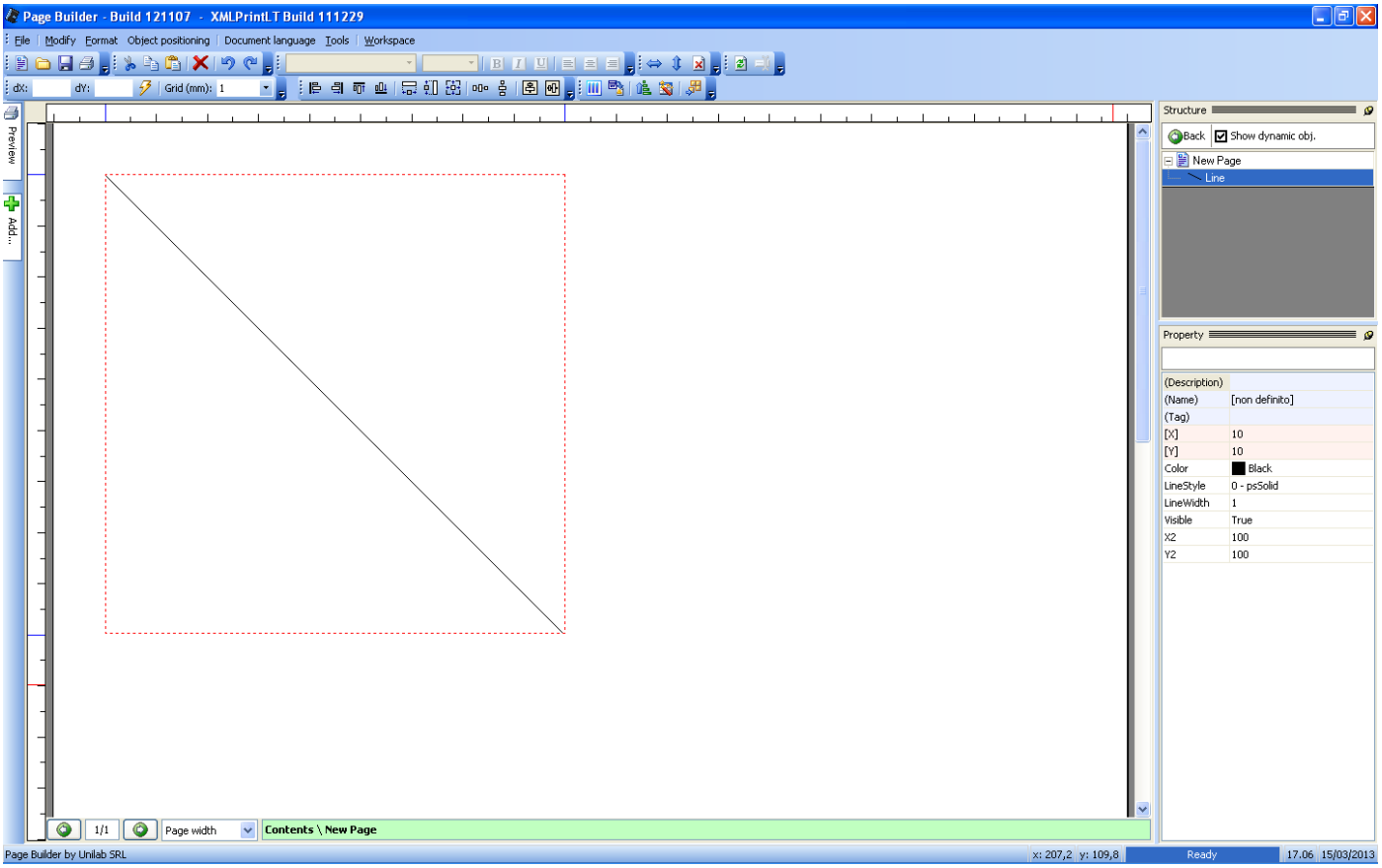
vppaZoom

vppaStretch

Line

To add a line, just click on the "line" in the "Add":

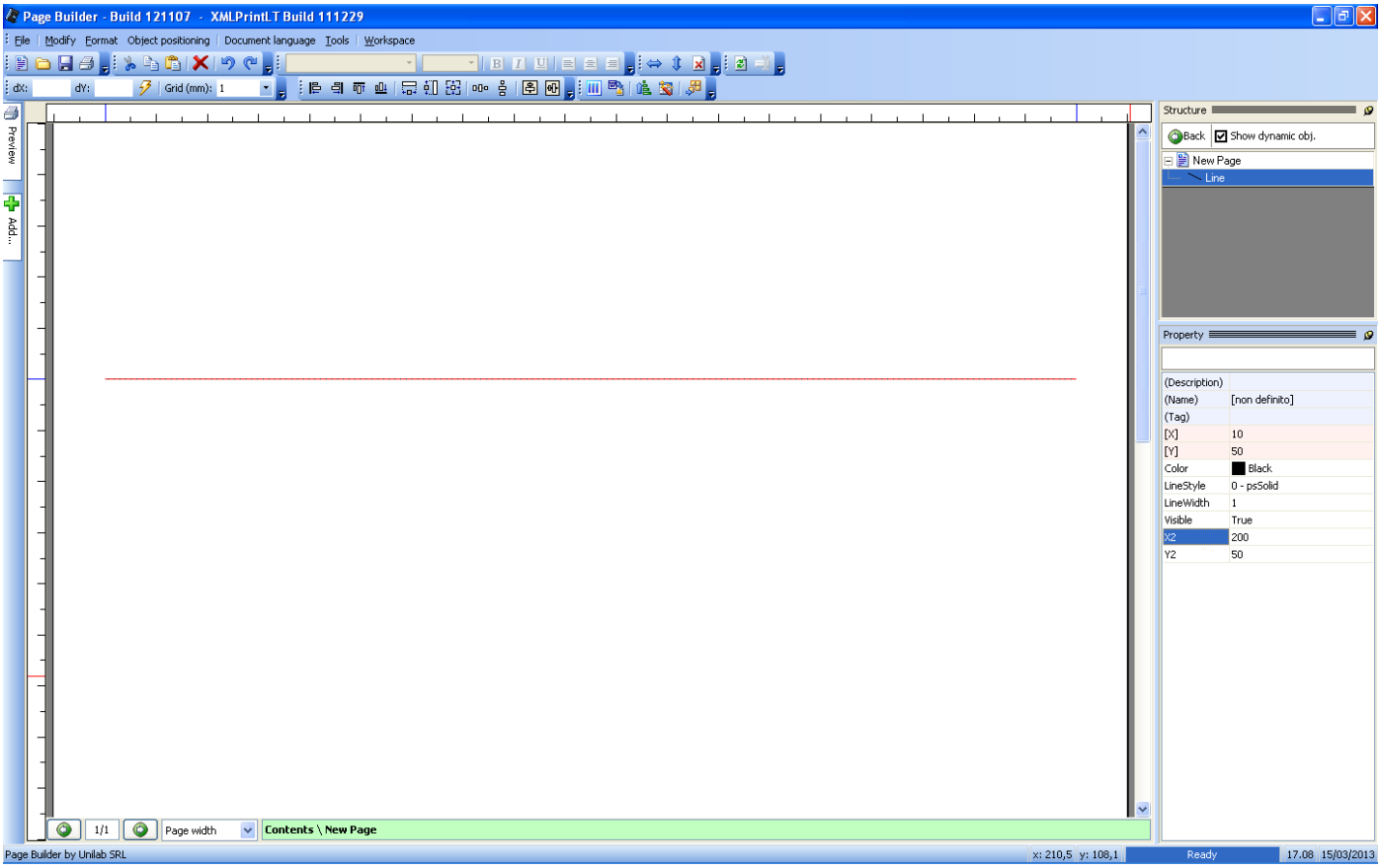
The result will be a line with sample values (the dashed red rectangle indicates the external perimeter of the resulting rectangle and it is not visible in print):



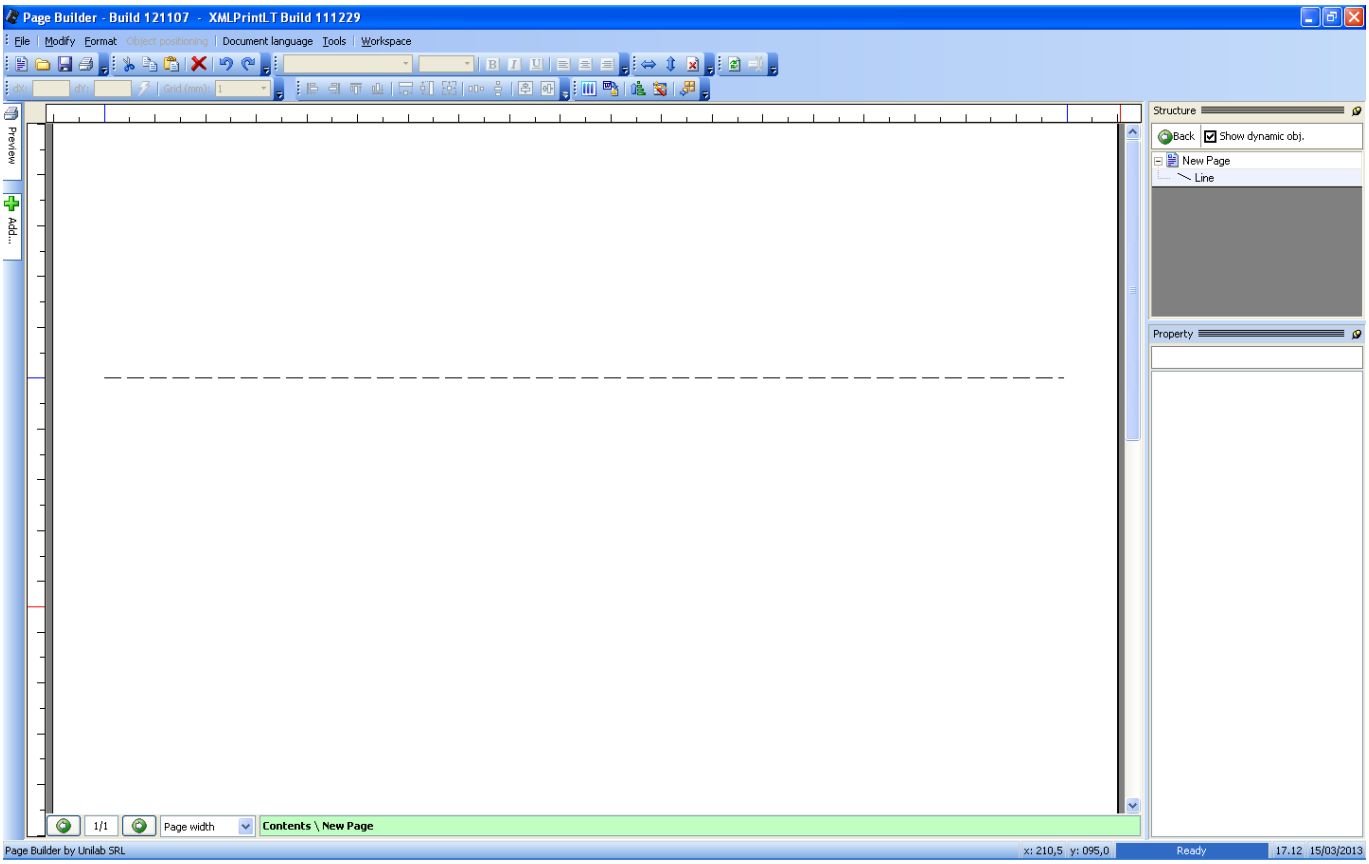
Then to specify the initial coordinates (X, Y) and final (X2, Y2) of the line itself. For example, to draw a horizontal line that divides the page into two, with 1 cm margin on each side, the values are:

X = 10
Y = 50
X2 = 200
Y2 = 50

The result will be:



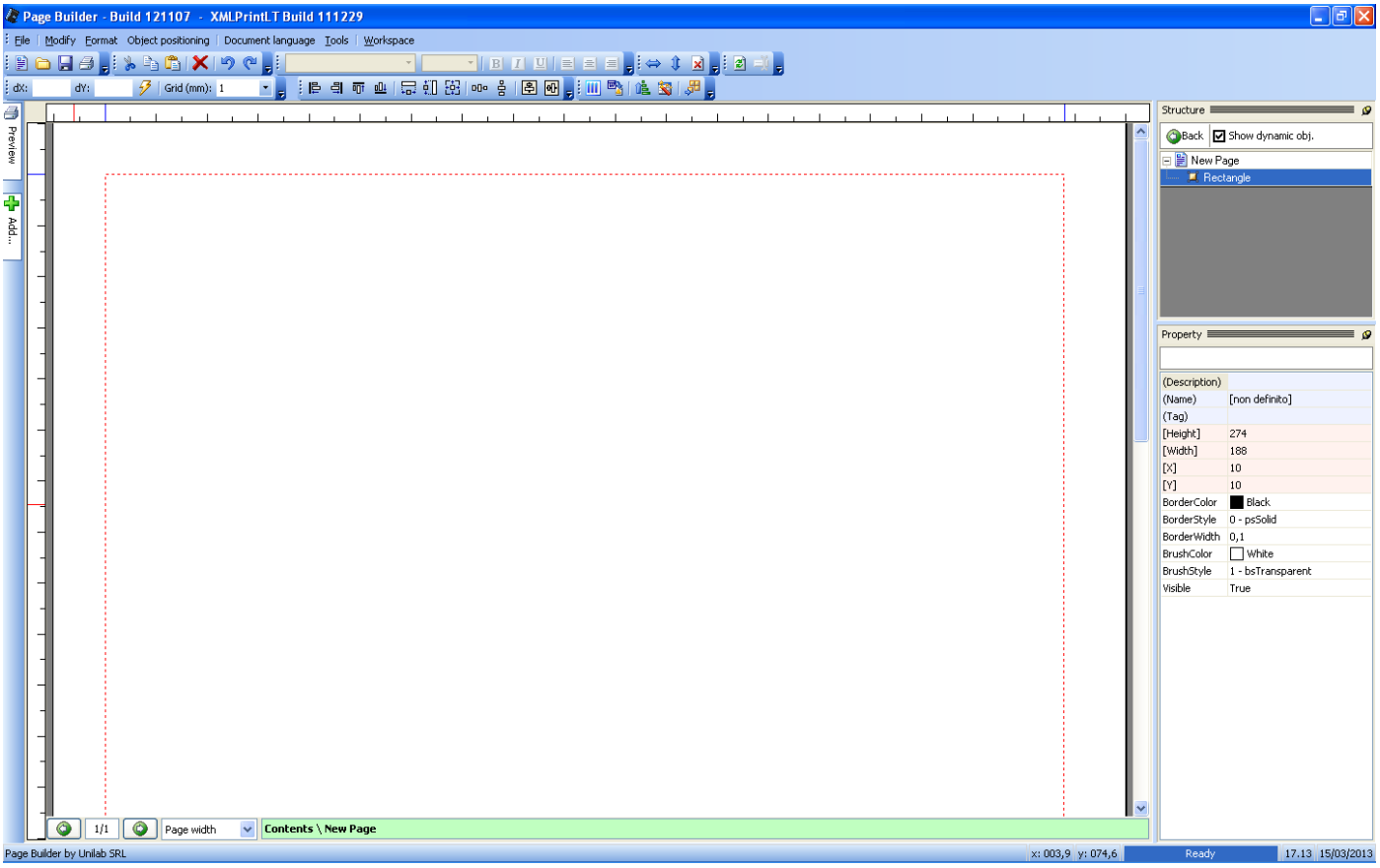
Through the property "Color" and "LineStyle" you can specify the line color and style: continuous (solid) or dashed (dash, dot, dash / dot, dash / dot / dot), etc.:



Rectangle

To add a rectangle to the page, click on the "Rectangle" in the panel "Add":

Then to place the new rectangle to the desired position:

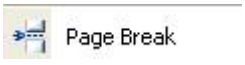


The rectangle that is created with the default size is done on purpose in order to create a rectangular border around the page with a margin of one centimeter on each side. However, it is sufficient to change the property "Width" and "Height" to change the size. These are the properties that you can customize:

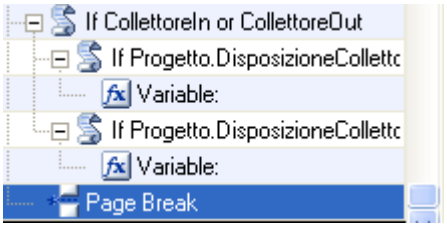
- "BoderColor": the color of the external edge of the rectangle.
- "BoderStyle": the type of border line. The values are the same as the line style seen above.
- "BoderWidth": the border width
- "BrushColor": the fill color of the rectangle
- "BrushStyle": the type of fill of the rectangle. May be "plain" ("Solid") or with various patterns, such as horizontal, vertical, grid, rotated grid, etc..

Page break

As explained above, you can enter in Page Builder pages called a "Page Break" that allows you to go to a new page. To add this element just click on "Page break"in the panel" Add ":

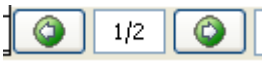


Once this is done, the page will be split into two at the point where the element page break was inserted. For example:



In the example above all the graphic objects before the element "Page Break" will be on page 1, instead all those below will be on page 2.

Finally, the fact that it has added a second page, it is shown in the middle of the page change buttons:

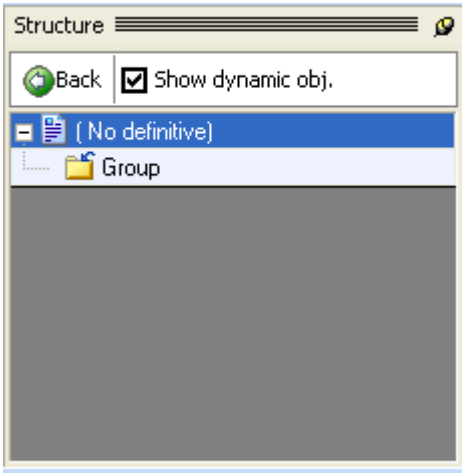


Groups

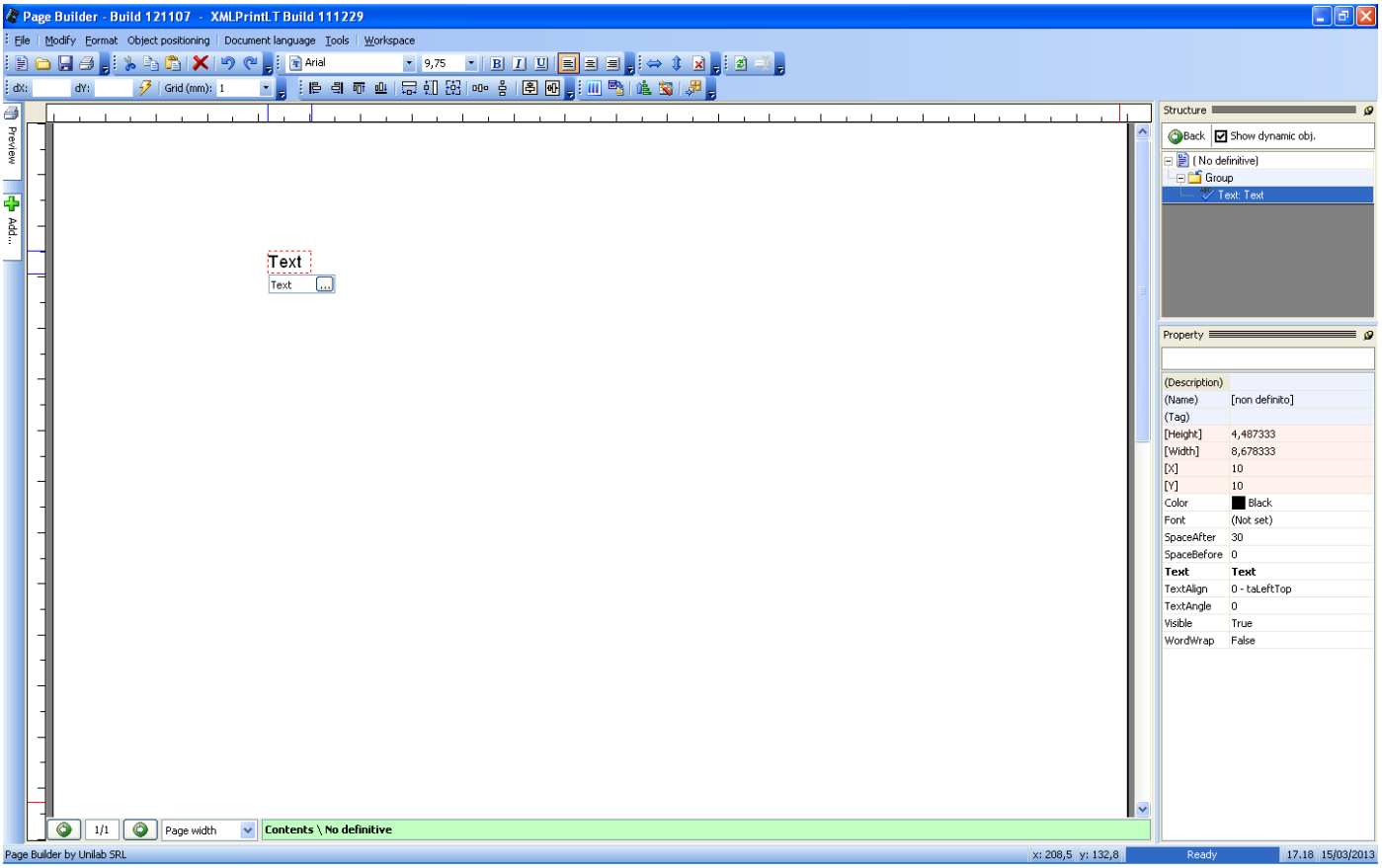
The object "Group" allows you to group a number of objects in a single unit, so that the tree structure is more readable.

To add a new group, click on "Group" in the panel "Add":

The new elemente will bw inserted in the structure and it e will have no effect on the printed page:



Here you can drag and drop page elements within the group, or add new elements to it:



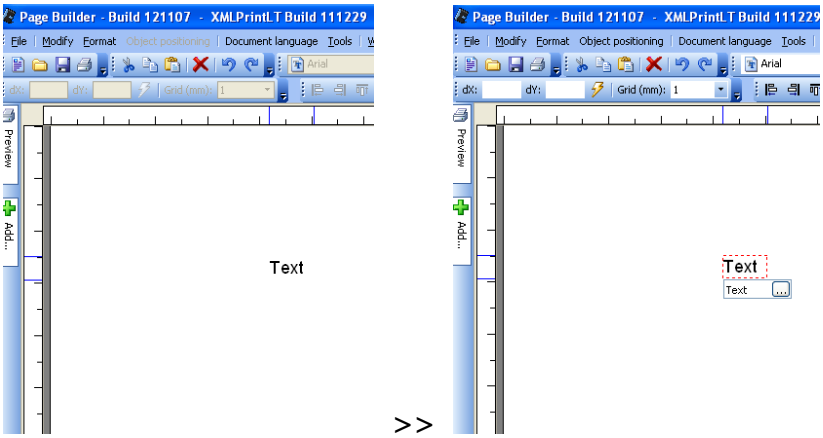
If

The object "IF" behaves the same way as the object group, only that it makes the visibility of elements contained in it parametric: indeed just set up a formula in the property "Condition" to show or hide certain fields.

Modifying Objects

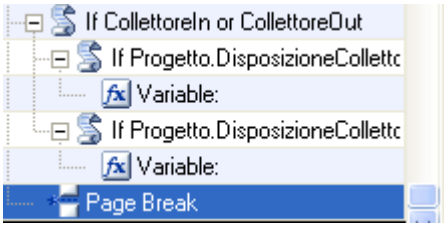
Selection

To select a graphic object within a page, simply double click on the page and then click on the object you want to select:

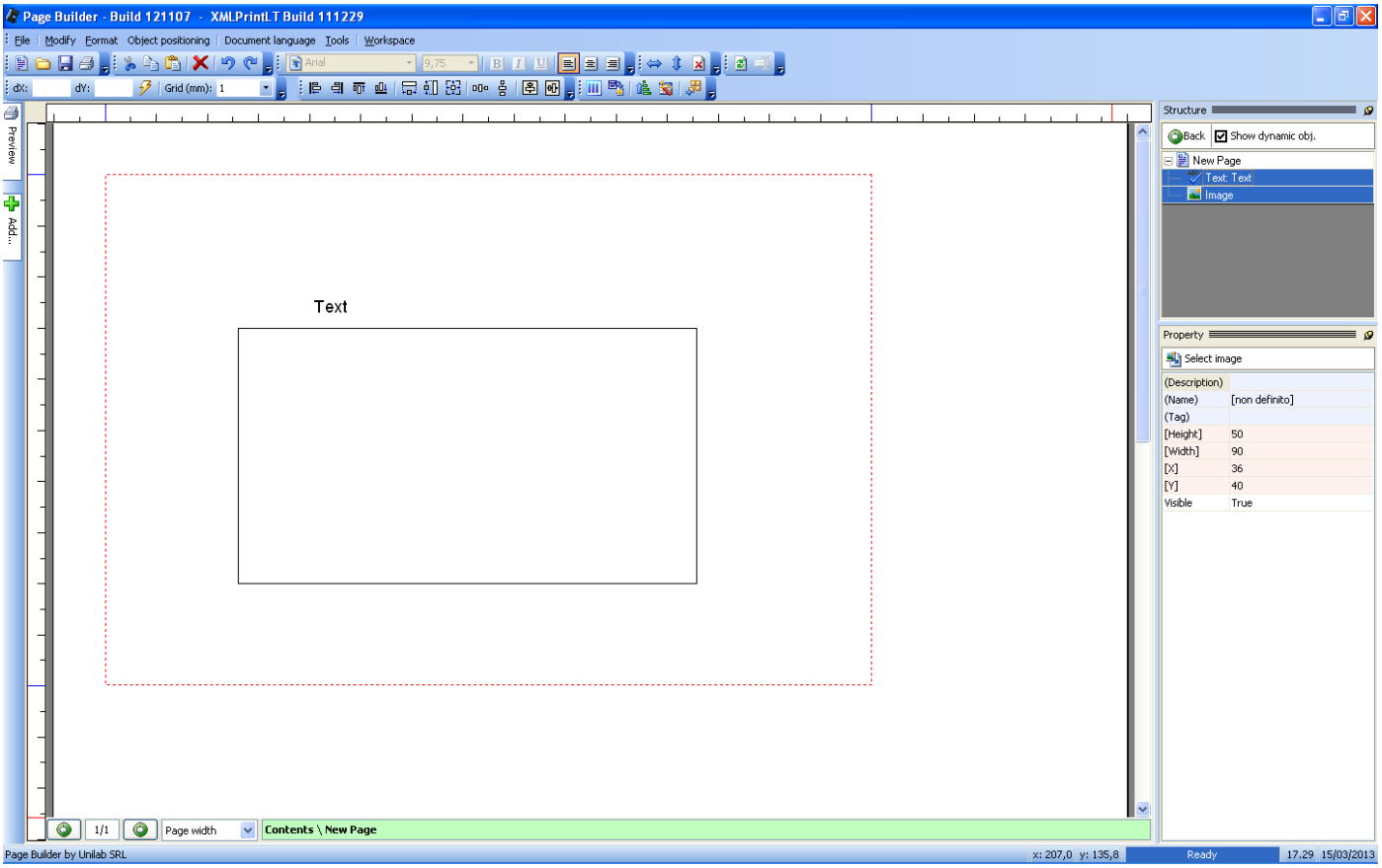


When you select an element, a red dashed rectangle is drawn around it.

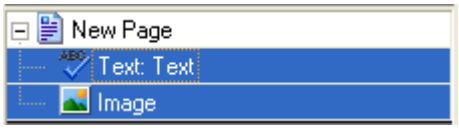
Alternatively, you can select an element from the structure of the document or page, simply by clicking on it in the list in the panel "Structure":



You can also select multiple elements at the same time, by drawing a rectangle around the elements you want to select:

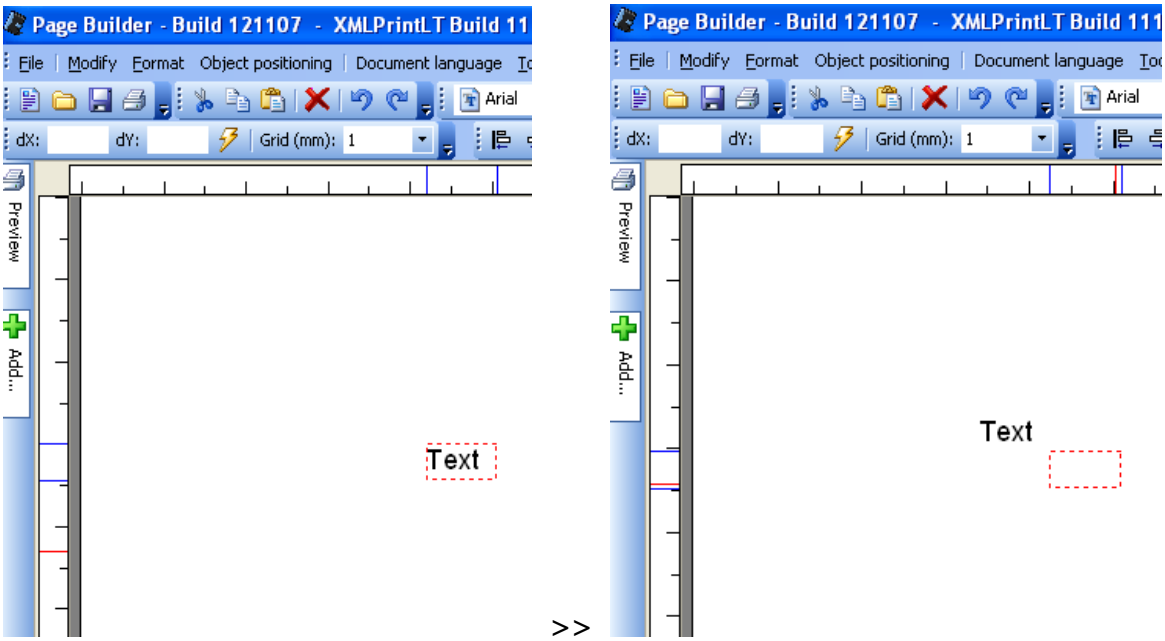


The selected elements will be highlighted in blue:



Shift

To move a selected object, simply click on the object and drag it to the new location. The red rectangle around the object will move with the mouse, indicating the new position:



When you release the mouse button, the object will be moved to the new location.

Another method is to quickly move an object using the offsets. Specifying the dX and / or dY in the navigation bar and clicking on the "Move" button, the item will be relocated.

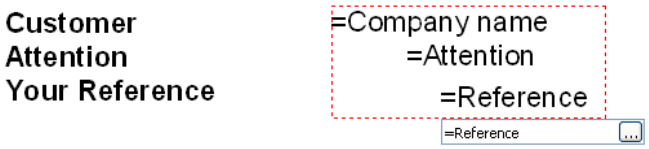
You can click several times on the "Move" button to move the object multiple times in the same delta.

Alignment and sizing

When you select two or more graphics, Page Builder allows you to align these elements with a single click of the mouse. The tools are, from left to right:

- Align Left
- Align Right
- Align Top
- Align Bottom
- Set the same width
- Set the same height
- Set the same size
- Same horizontal spacing
- Same vertical spacing
- Centering down the page
- Centering horizontally on the page

We suppose to want to align a number of elements on the left. Select the elements you want to align, with particular attention that reference element is the last selected:



Click the button "Align Left" :

Copy and Paste

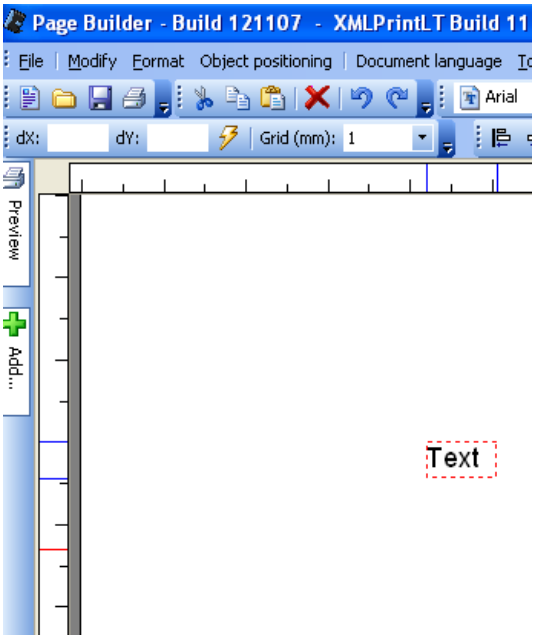
Page Builder allows you to do the Copy and Paste of all the graphic elements and structure in the document.

To select the element that you want to copy and press "Ctrl + C" or click the appropriate button to copy the element.

To paste the element, to select the parent element where you want to paste the new element and press "Ctrl + V" or click the appropriate button to paste the new element.

Deleting an object

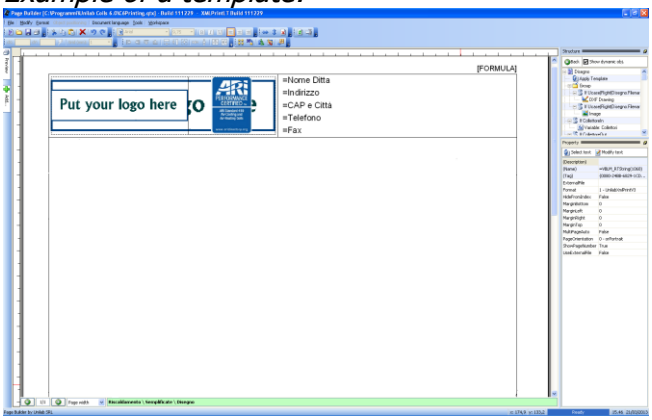
To delete an object simply select it (as we saw in chapter "Selection") and press the "Delete" on your keyboard or click on the red "X" button next to Copy and Paste:



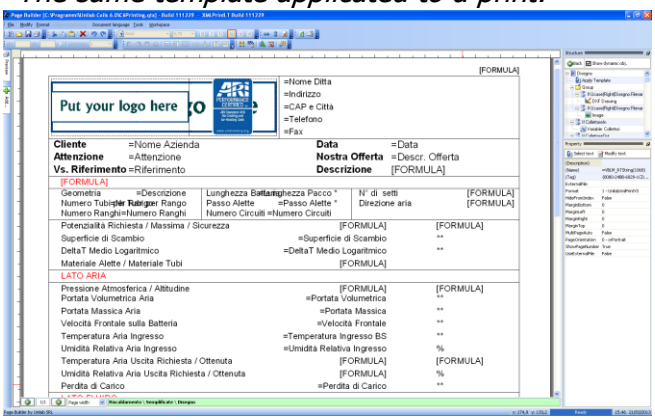
The templates and modular blocks

Very often, prints technical, there may be text or images that repeat the same on every page, such as a scroll. Page Builder provides two tools that allow you to group these repetitive elements into a single object, easy to locate on each page templates and modular blocks. The templates are there to create title blocks, borders, etc.. that will be repeated on each page, and take up the whole page. The modular blocks are instead of groups of objects that can be placed freely on the page. When you move the block, all objects contained in it will be repositioned.

Example of a template:



The same template applicated to a print:



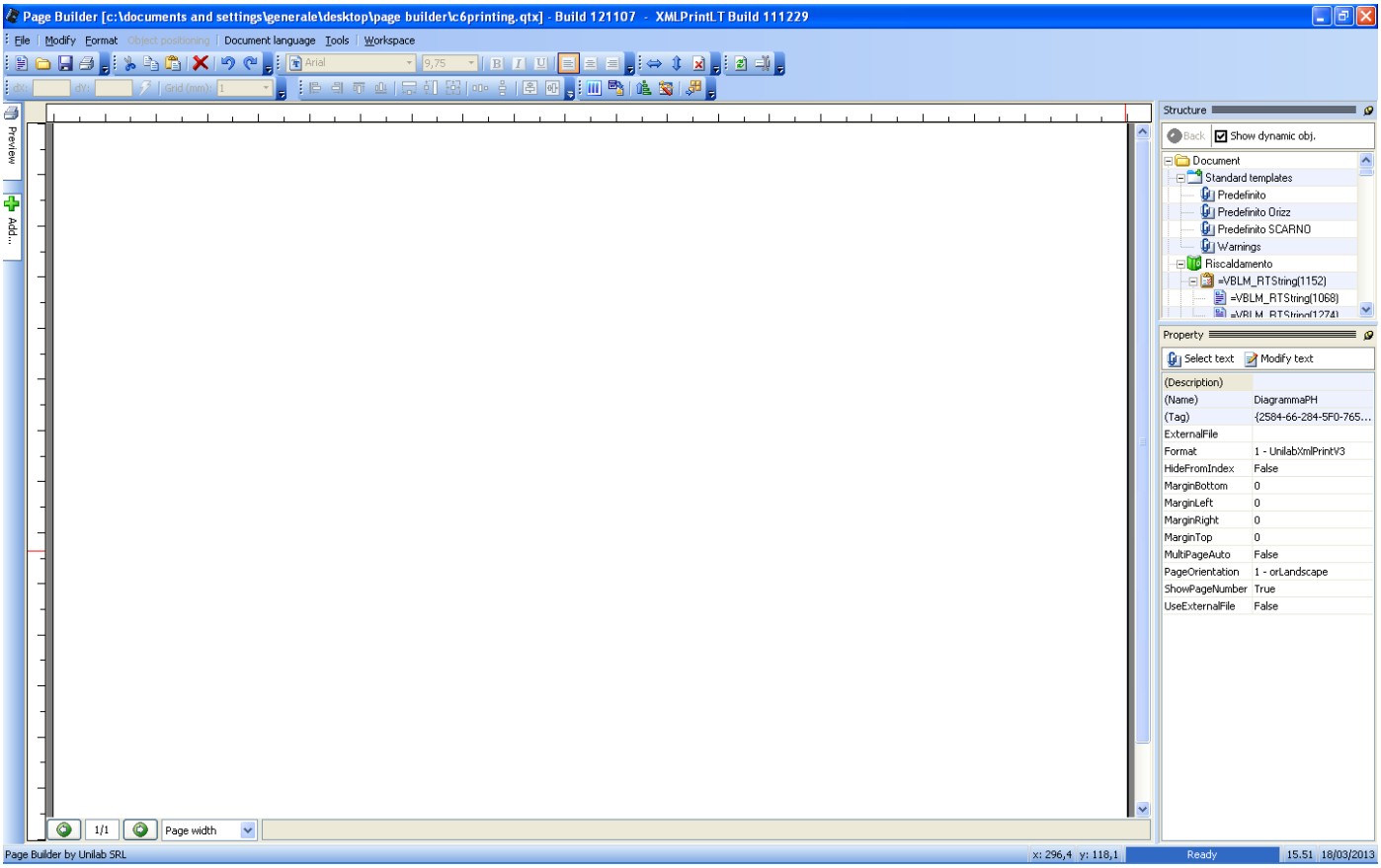
The templates and modular blocks have a big advantage: when you make a change to one of them, automatically all the pages that include them will be updated. In this way modify the pages print is a very rapid.

Tutorial: Composition of a complex page

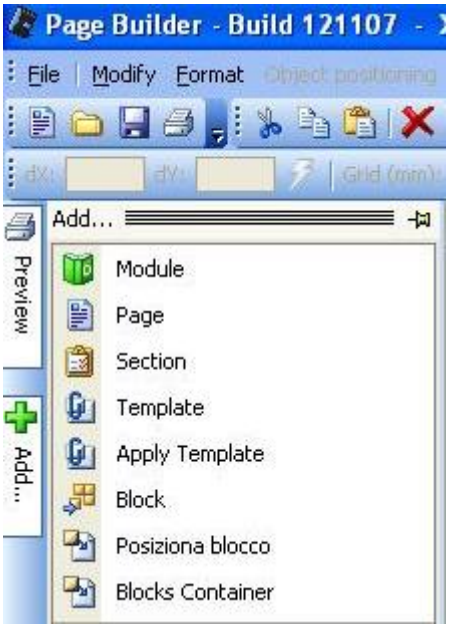
Now we will see step by step how to create a page to print complex, using templates and modular blocks to facilitate design work and make more orderly the structure of objects of the document.

Creating a new page / section

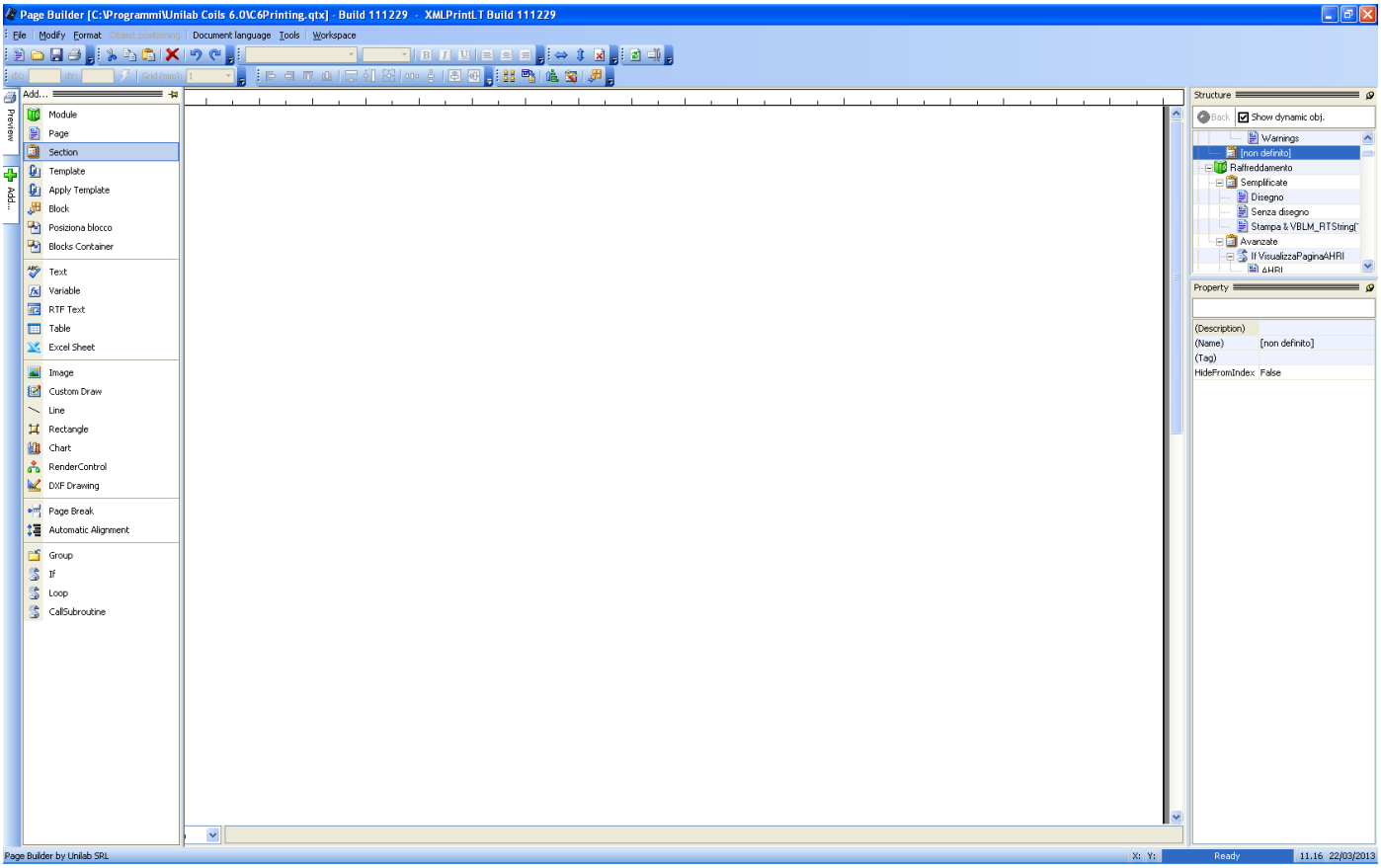
We suppose you need to add a new page printing Coils 6.5. After opening the document QTX appropriate (see the chapter "Using the plug-in coils - Connection Coils"), we select the module on which we act, for example, "Heating":



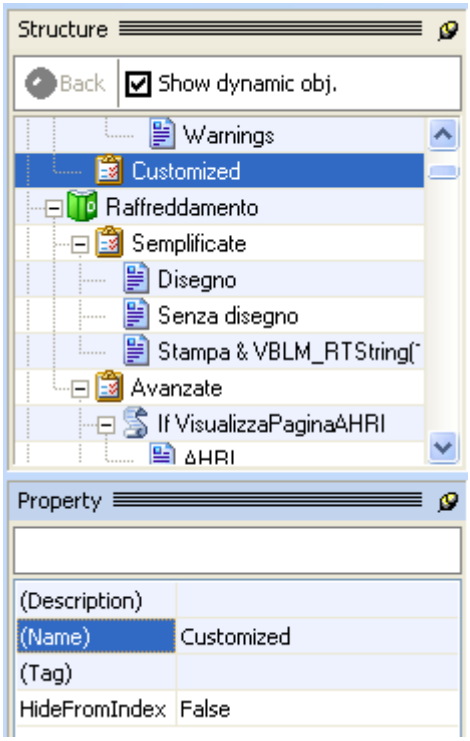
We add a new section by clicking on the "Section" in the panel "Add":



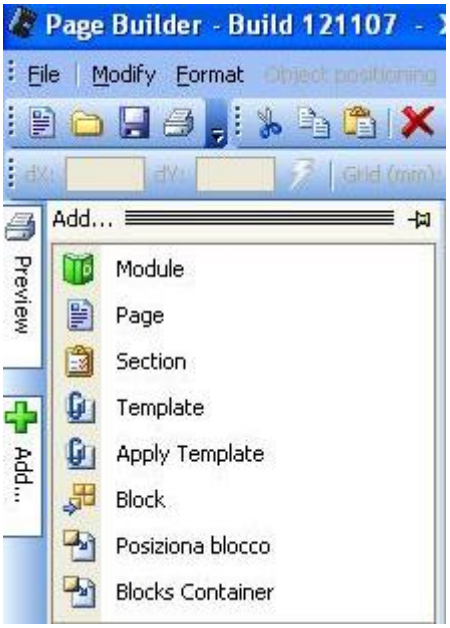
The new object will be added to structure of the document, within the module "Heating", and it will be automatically selected:



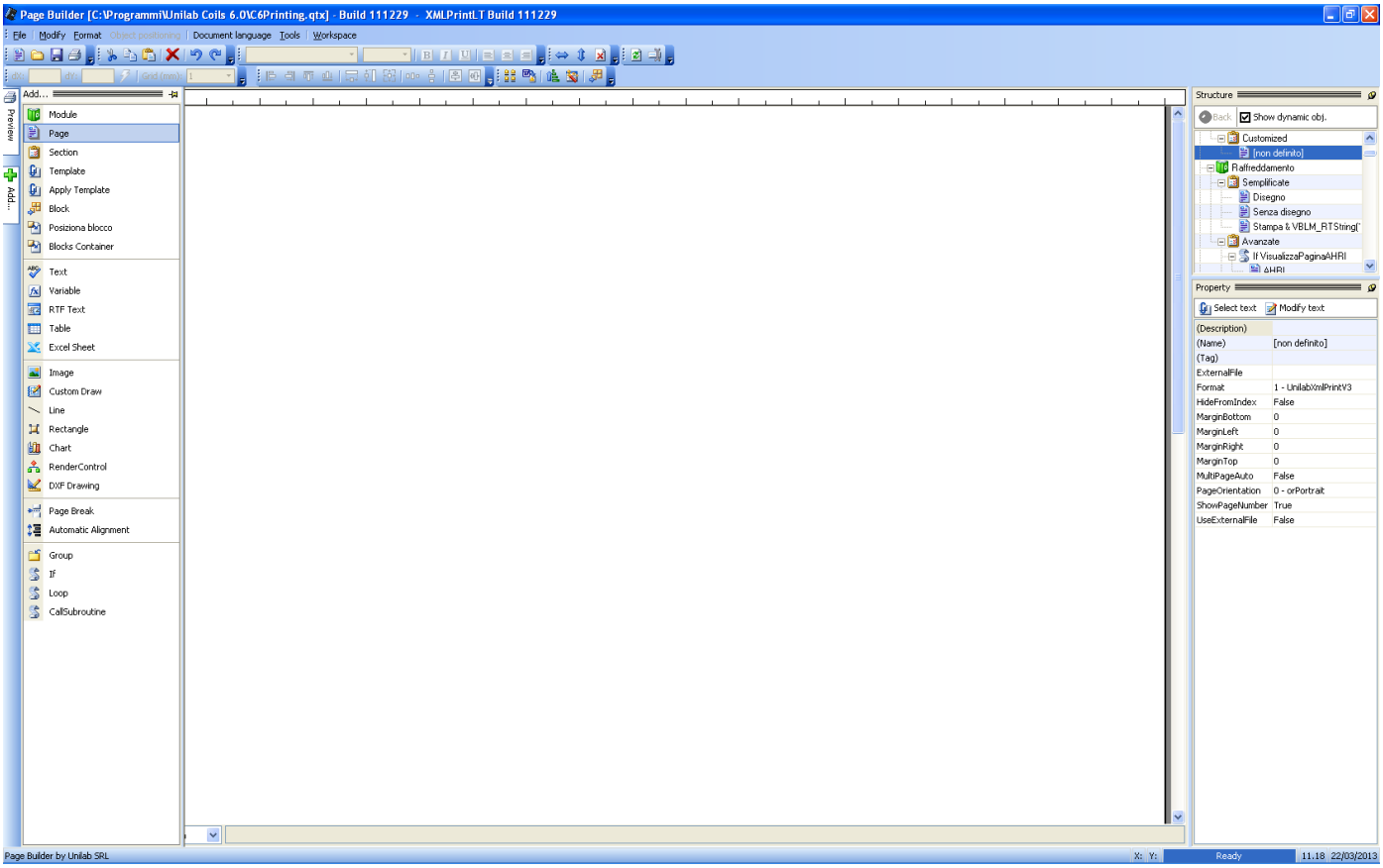
In the property "(Name)" we set how name of the section "Customized":



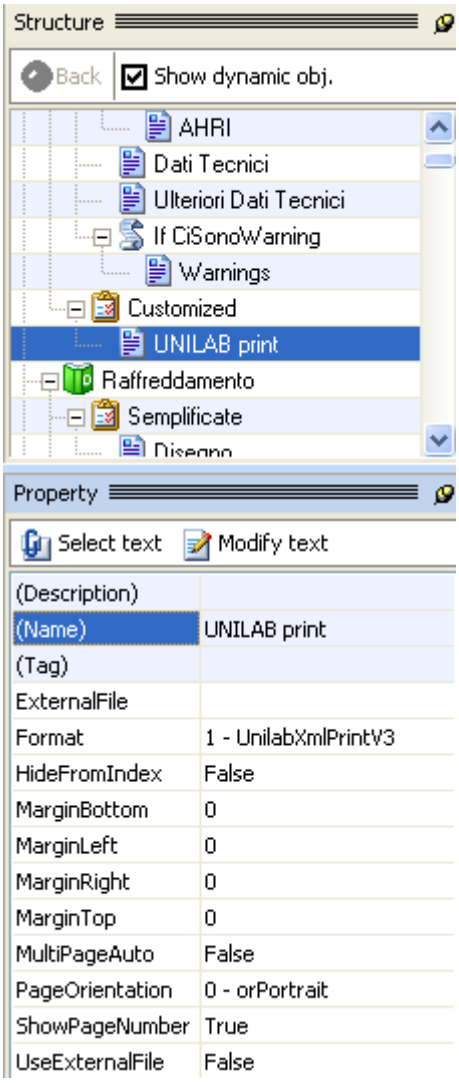
Now we add a new page:



The new object will be added to structure of the document, in the section "Custom" you just created, and it will be automatically selected:

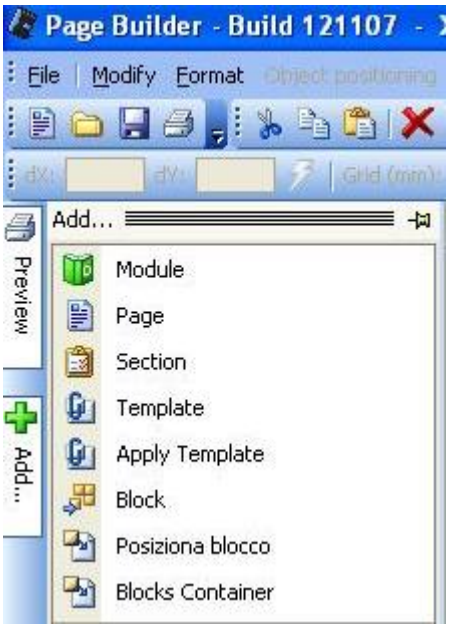


In the property "(Name)" we set as name of the page "UNILAB print":

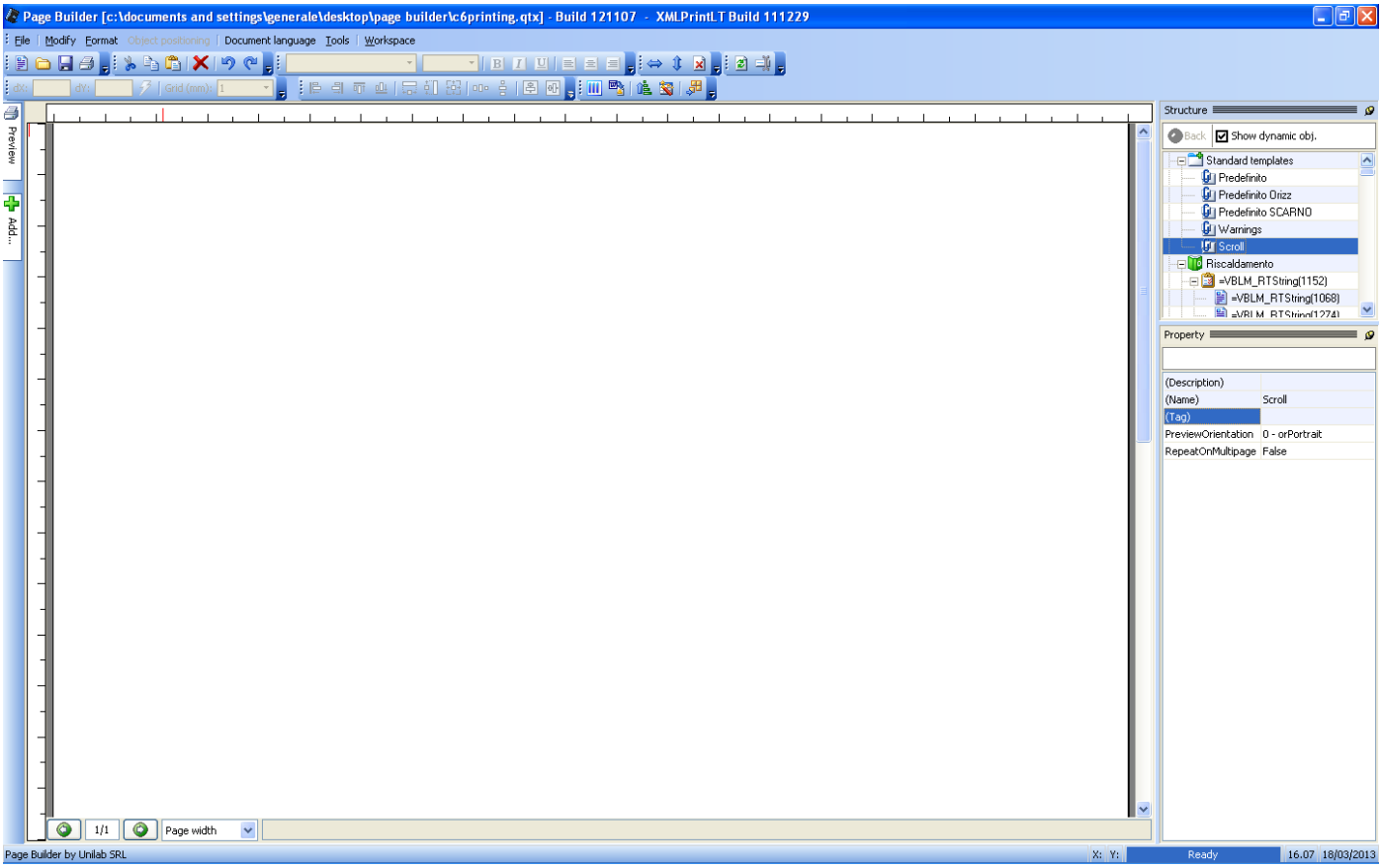


Creating a new template

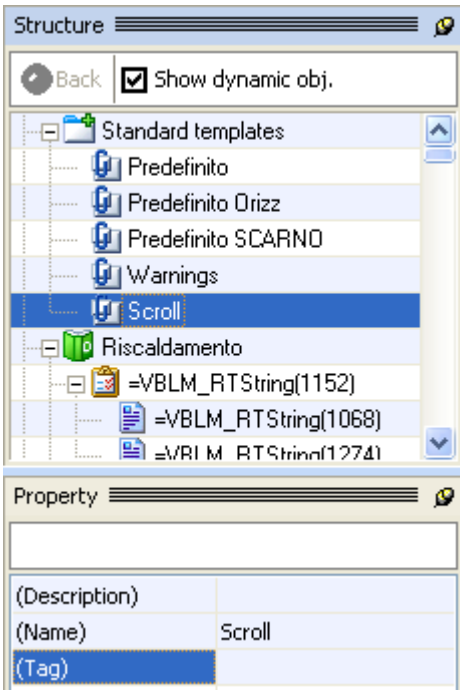
To create a new template, to select "Template" panel "Add":



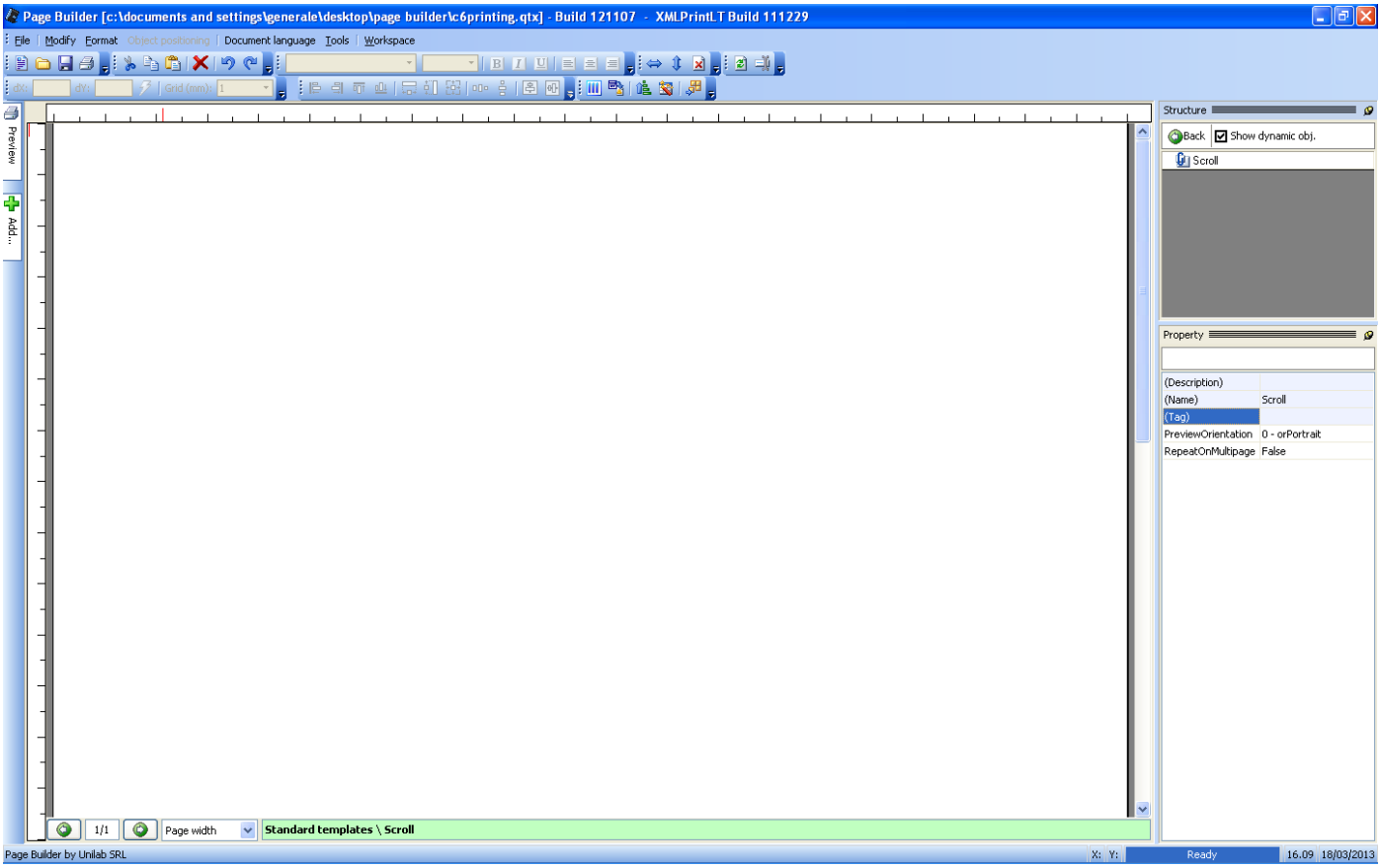
The program will add the new template in the "Charts default":



Through the property "Name" to set as name of template "Scroll":



To do double click on the template "Scroll" to modify it:

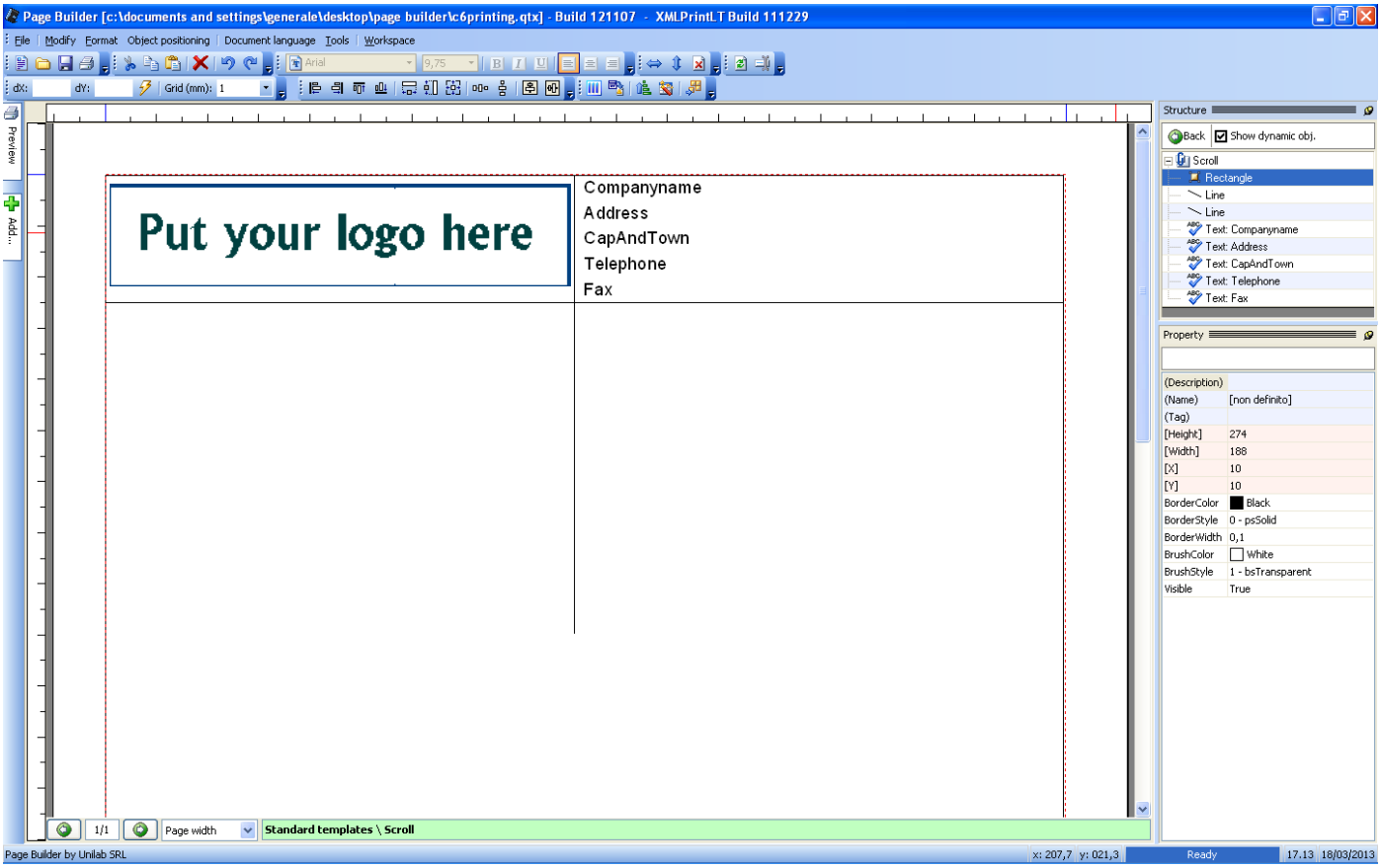


At this point, to insert the following elements in the template, following the instructions seen in the section "Principal graphic objects insertable in a page":

```
Rectangle:
X = 10
Y = 10
Width = 188
Height = 274

Line:
X = 10
Y = 35
X2 = 198
Y2 = 35

Line:
X = 102
Y = 10
X2 = 102
Y2 = 35

Text:
X = 104
Y = 10,5
Text = "=ClienteUnilab.NomeDitta"

Text:
X = 104
Y = 15,5
Text = "=ClienteUnilab.Indirizzo"

Text:
X = 104
Y = 20,5
```

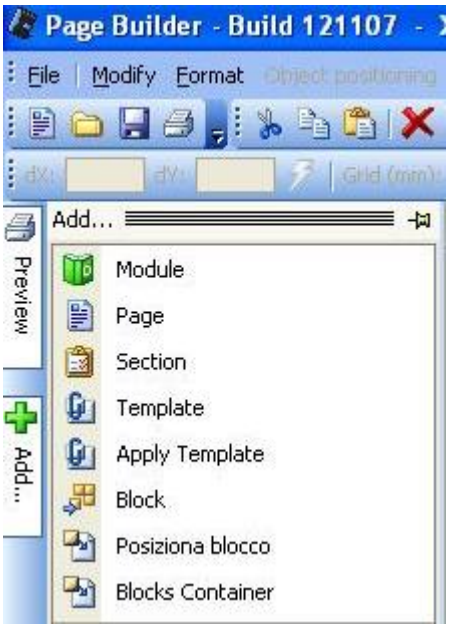
```
Text = "=ClienteUnilab.CapAndCitta"

Text:
X = 104
Y = 25,5
Text = "=ClienteUnilab.Telefono"

Text:
X = 104
Y = 30,5
Text = "=ClienteUnilab.Fax"
```

The result will be:

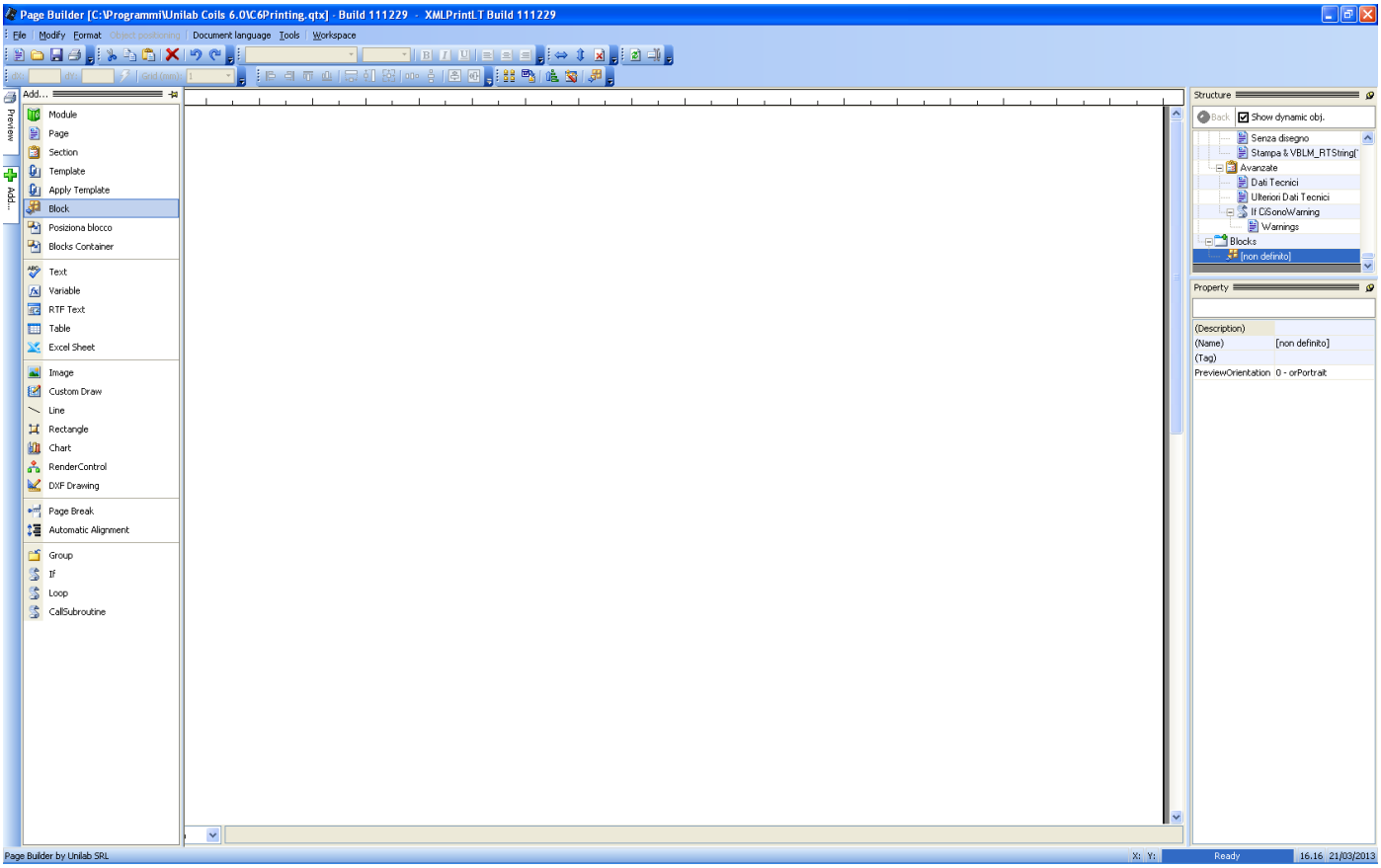


Creating a new block

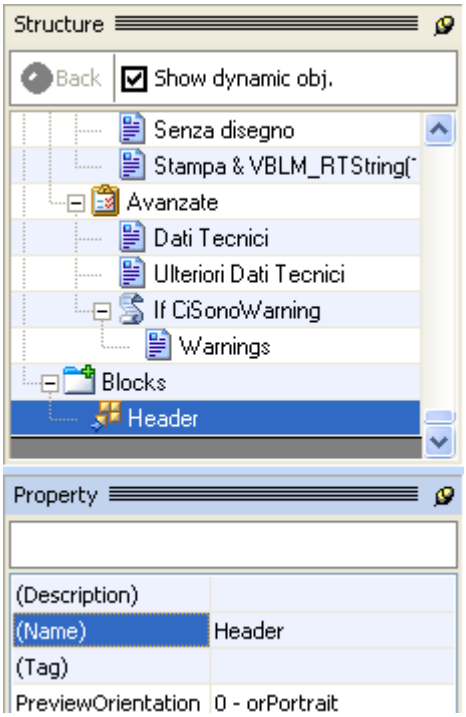
To create a new block, click on "Document" in the panel "Structure", then click on "Block" in the panel "Add":



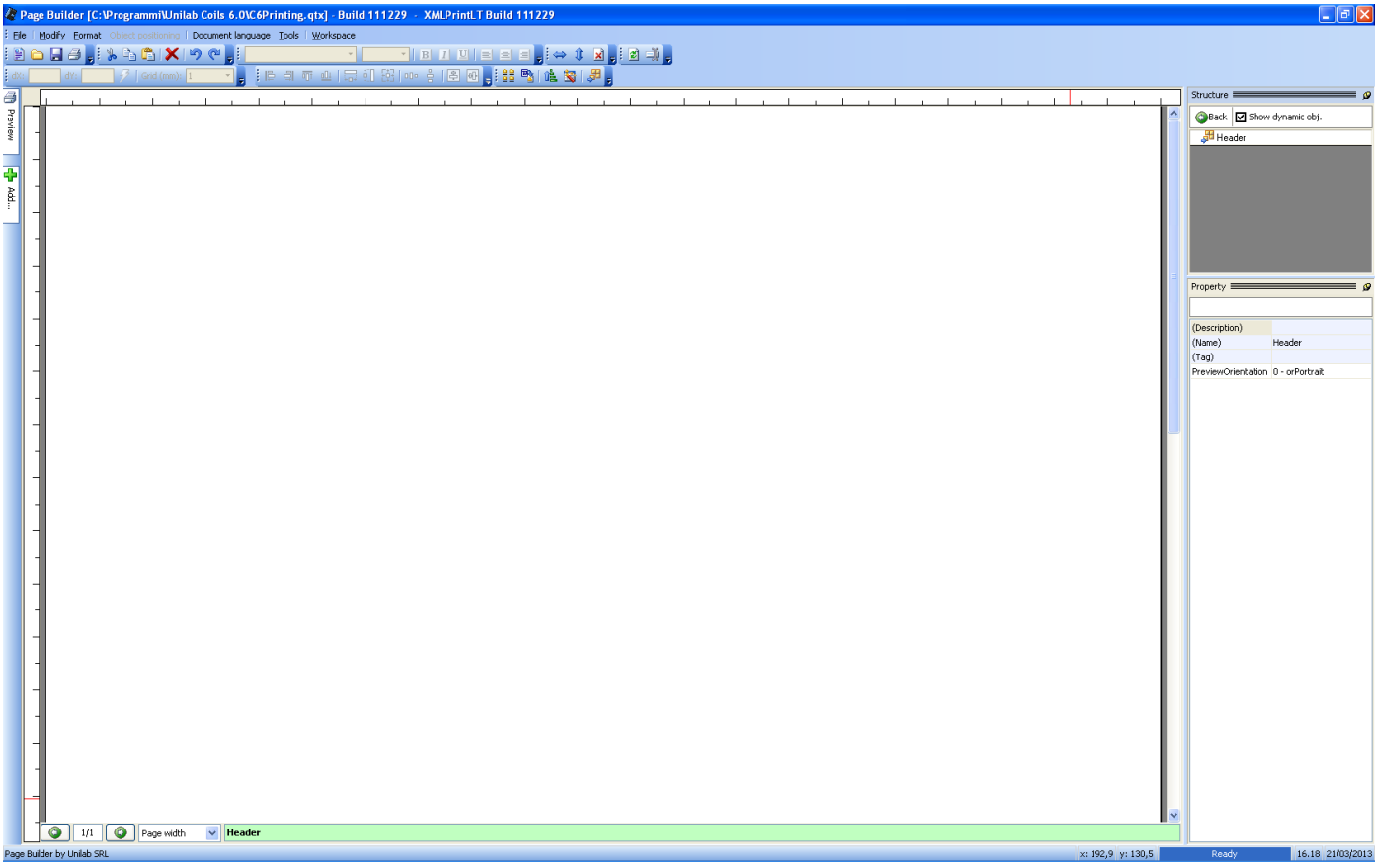
The new block will be located within the folder "Blocks":



Through the property "Name" set as name of the block "Header":



Double click on the block to modify it:

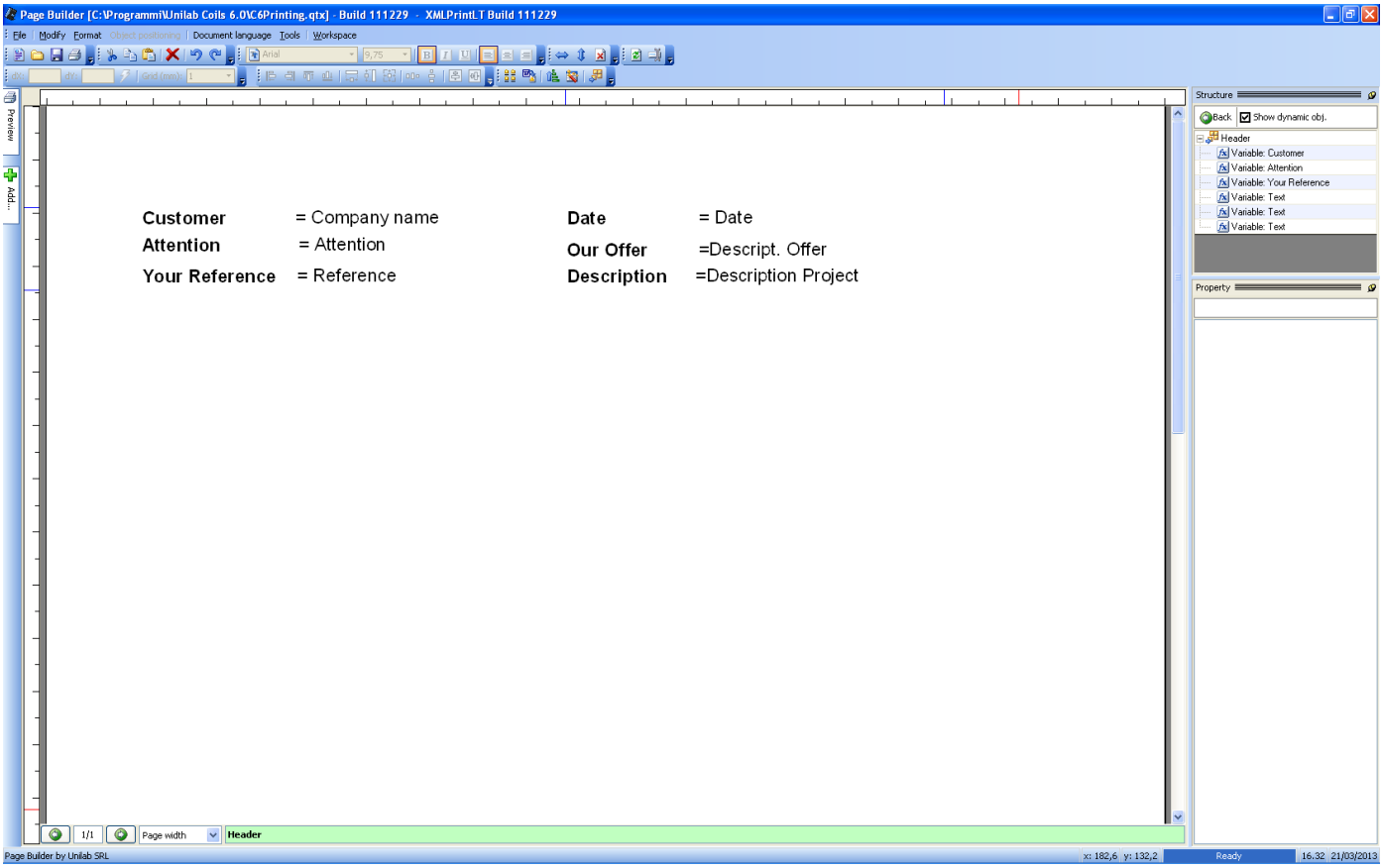


Following the same procedure as above, to insert the following texts with variable:

```
First column:
Text = "Customer",          Variable = "=Company Name"
Text = "Attention",         Variable = "=Attention"
Text = "Your Reference",    Variable = "=Reference"

Second column:
Text = "Date",              Variable = "=Date"
Text = "Our Offer",         Variable = "=Descript. Offer"
Text = "Description",       Variable = "=DescriptionProject"
```

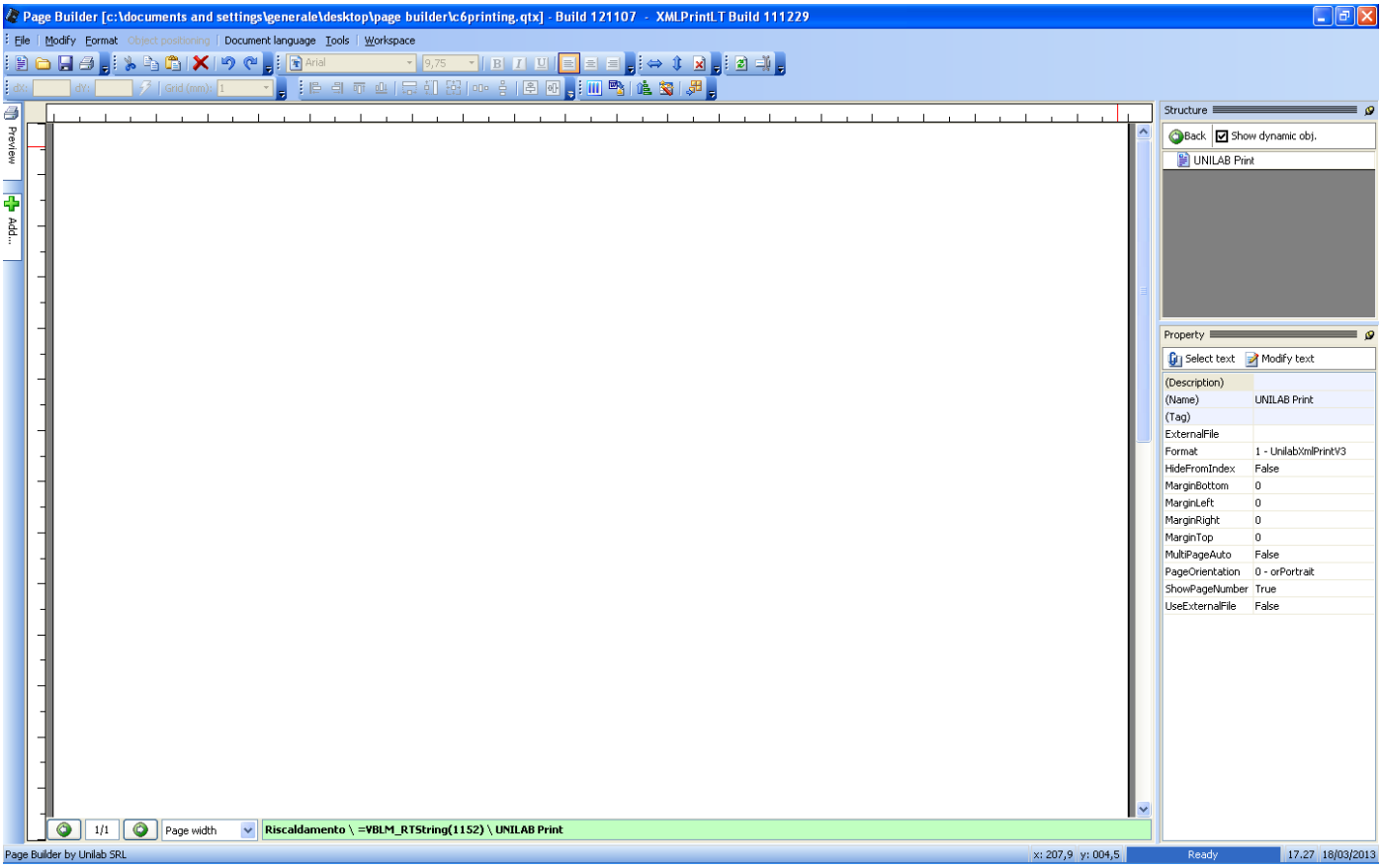
The placement (X, Y) of the first object is not important because the entire block will be placed within the page with new (X, Y), maintaining the relative positioning of other objects.

The result will be:

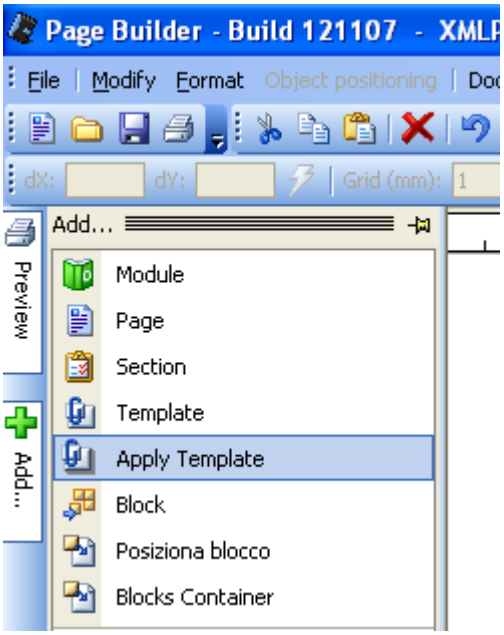


Using template

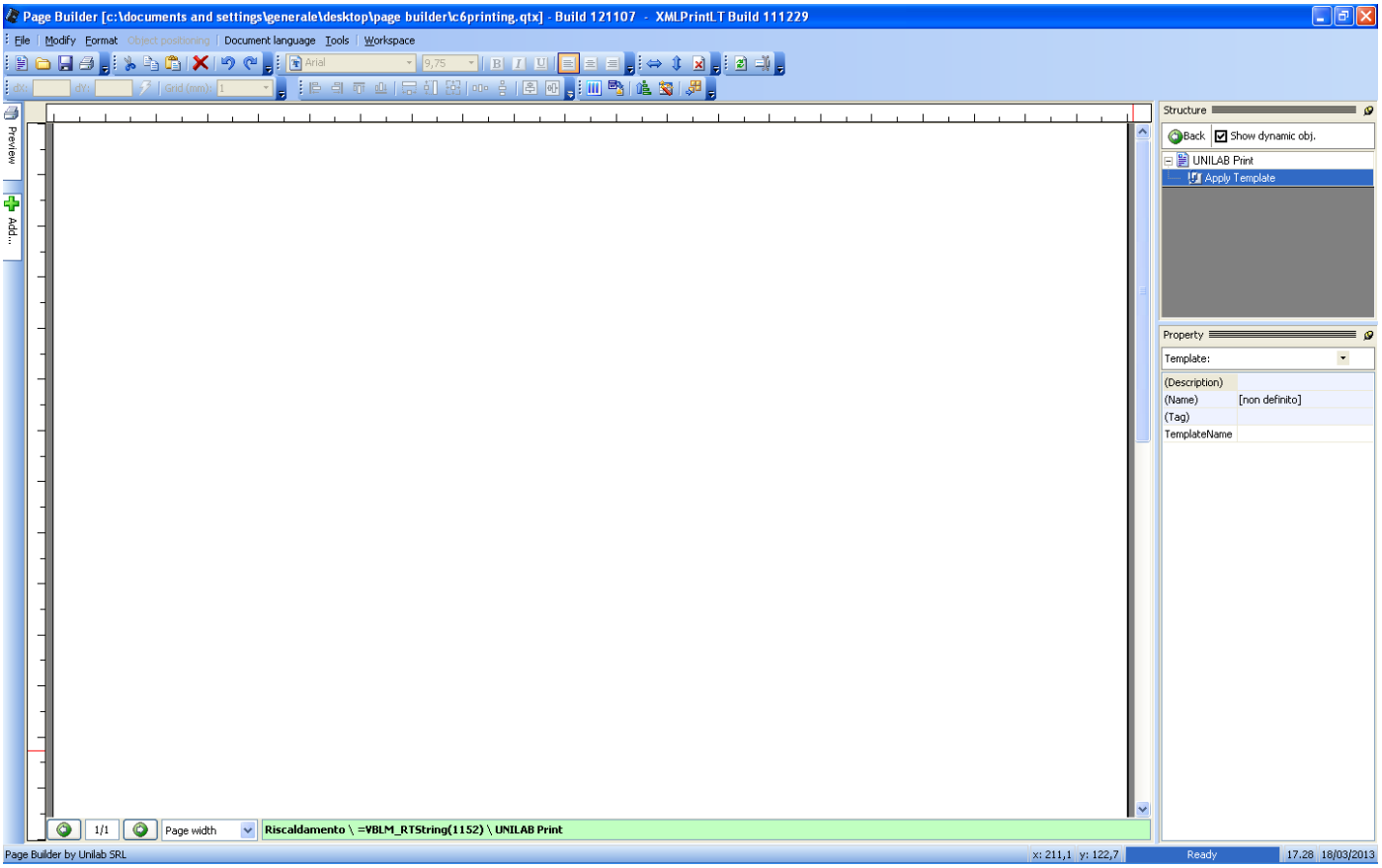
At this point, to return to the structure of the document and double-click on the page that we introduced earlier, "UNILAB print":



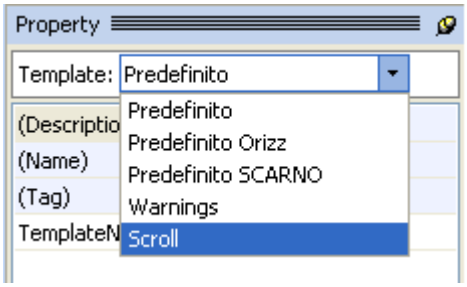
Insert the element "Apply schema" panel "Add":



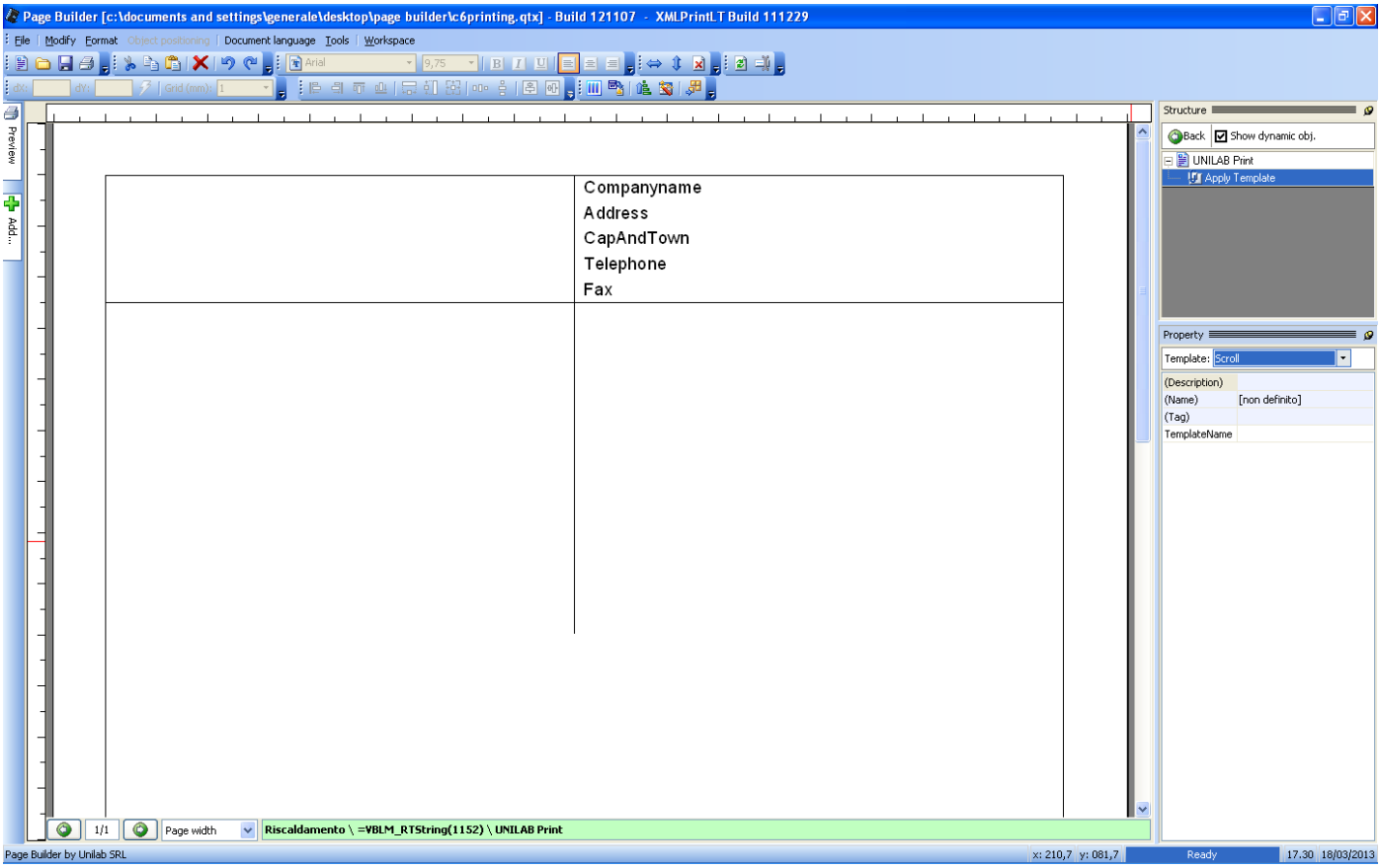
A new object will be added to the page, which is the link to the template you want to use:



From the "Properties" panel, click the drop-down menu "Template" and to select the template "Scroll" created before:

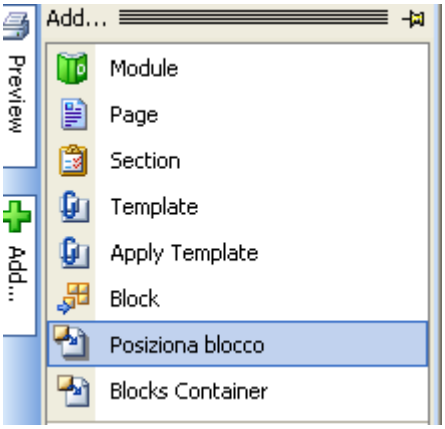


The template "Scroll" will be applicated to the page:

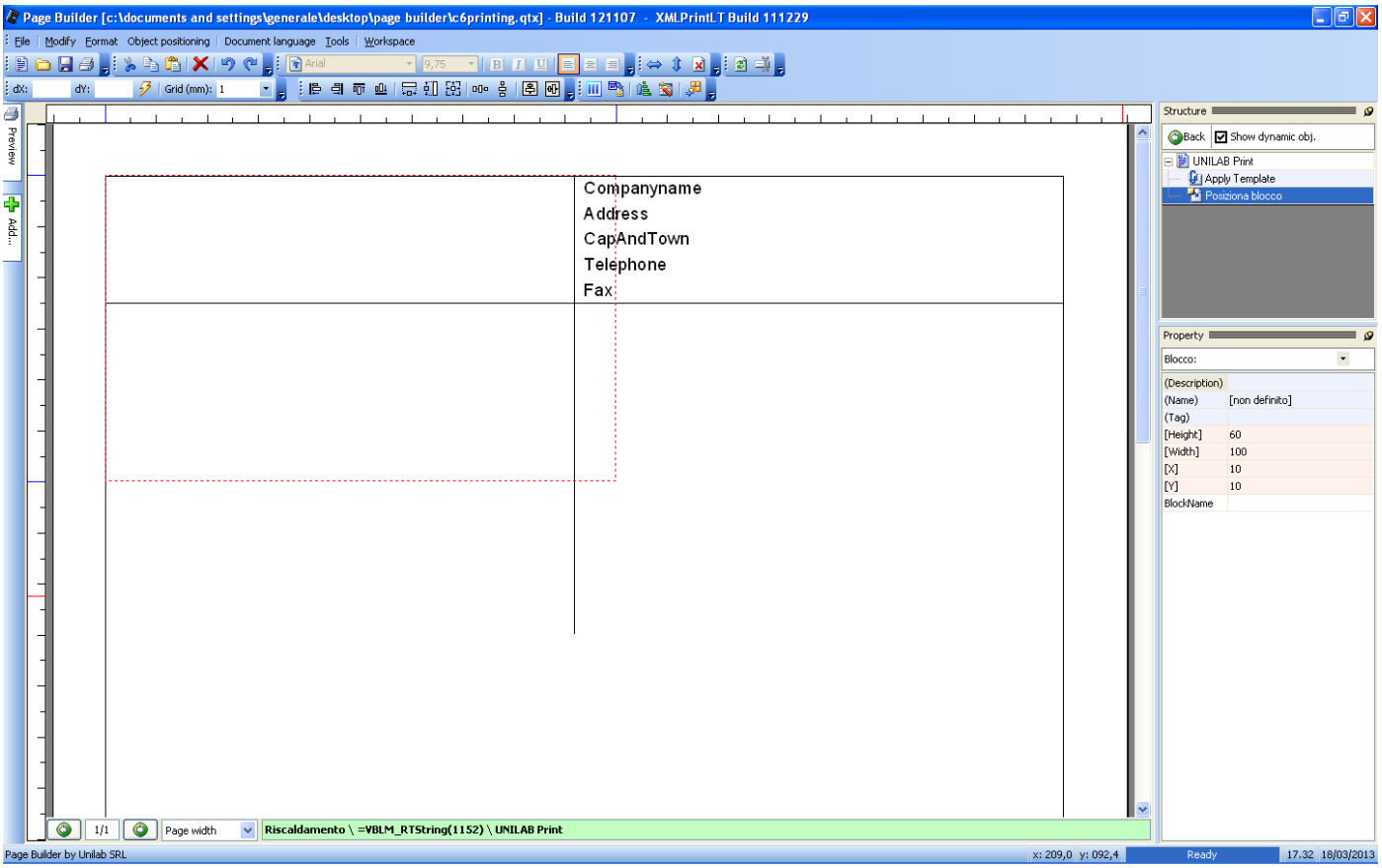

Page Builder [c:\documents and settings\generale\desktop\page builder\c6printing.qtx] - Build 121107 - XMLPrintLT Build 111229
File Modify Format Object positioning Document language Tools Workspace
Companyname
Address
CapAndTown
Telephone
Fax
Structure
Back
Show dynamic obj.
UNILAB Print
Apply Template
Property
Template: Scroll
(Description)
(Name) [non definito]
(Tag)
TemplateName
1/1
Page width
Riscaldamento \ =VBLM_RTString(1152) \ UNILAB Print
Page Builder by Unilab SRL
x: 210,7 y: 081,7
Ready
17.30 18/03/2013

Using modular blocks

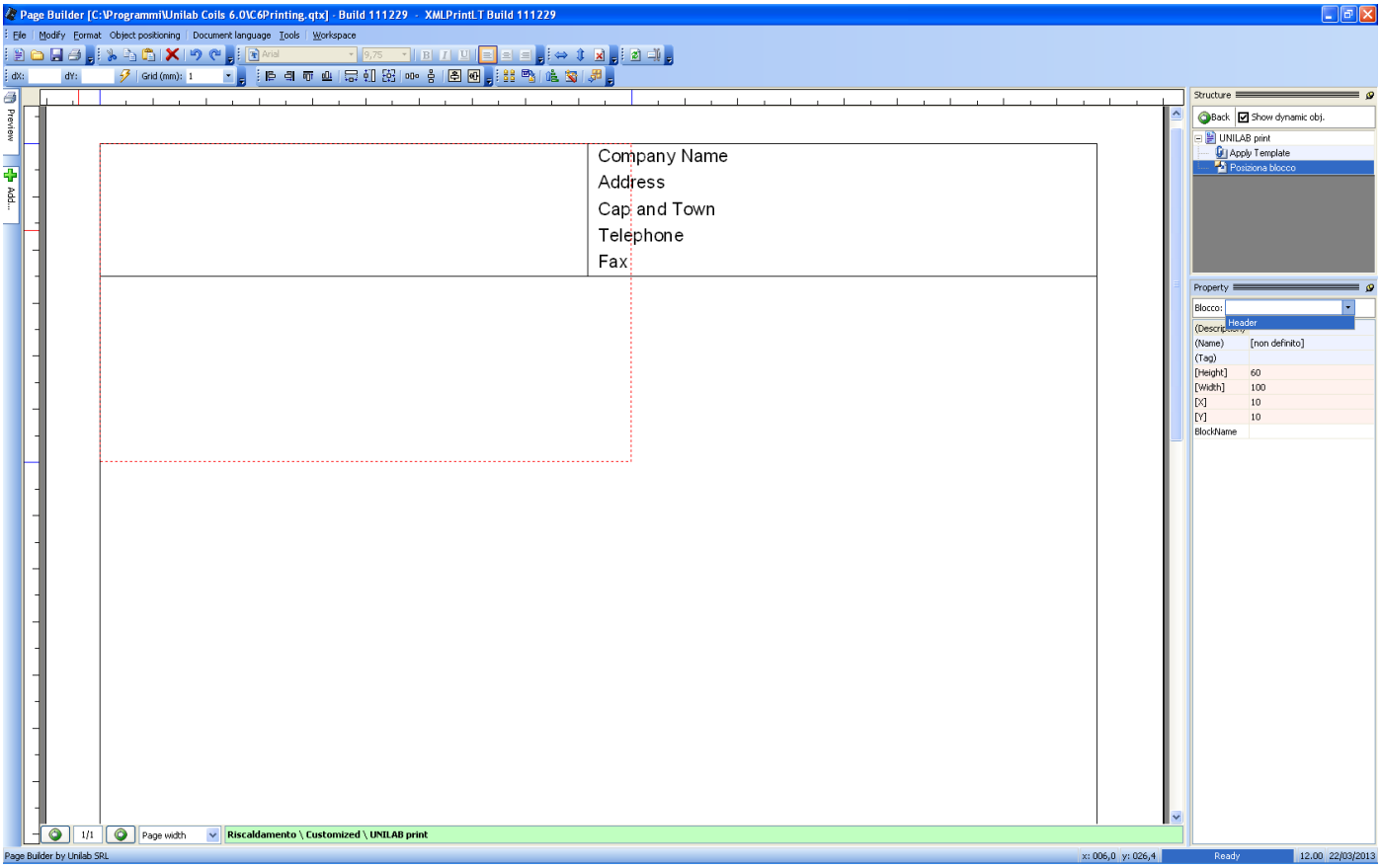
In the panel "Add" click on "Place block":



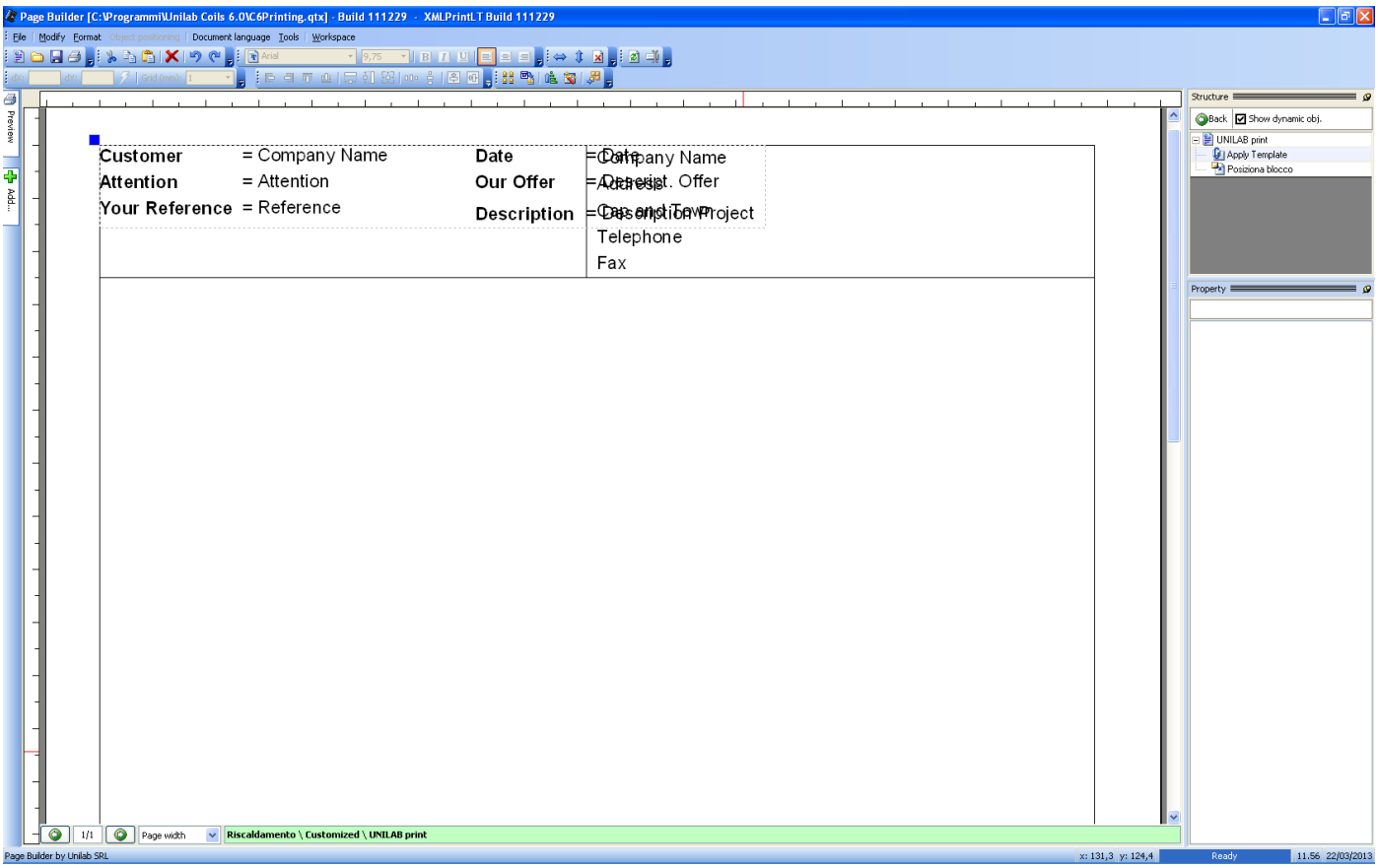
A new object will be added to the page, which is the link to the block that you want use:



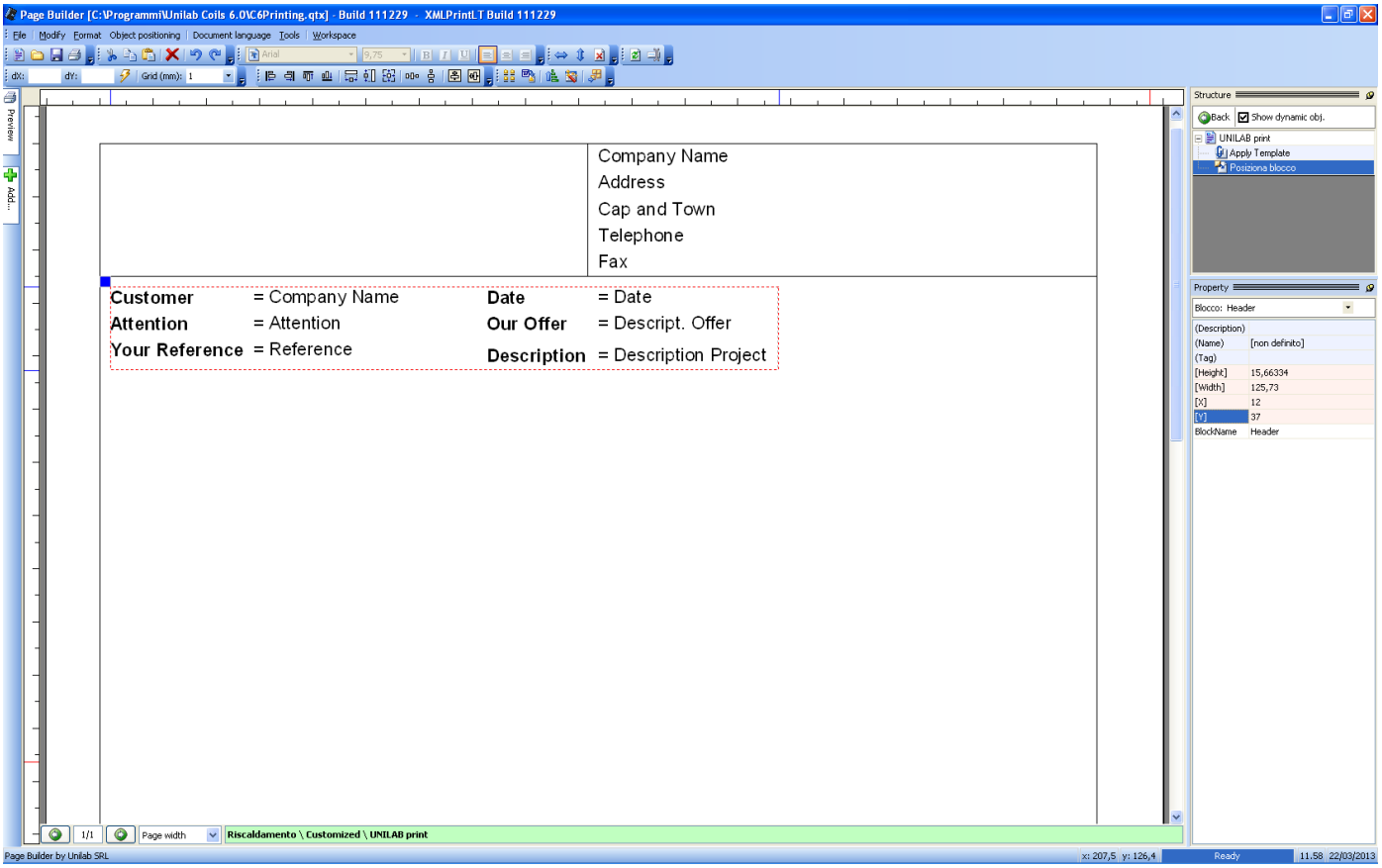
From the "Properties" panel, click the drop-down menu "Block" and select the block "Header" created before:



The block "Header" will be inserted in the page:



To place the block to the position (X = 12, Y = 37):



To repeat the same procedure until now to create and insert all the blocks needed to create the desired printable page.

Language management

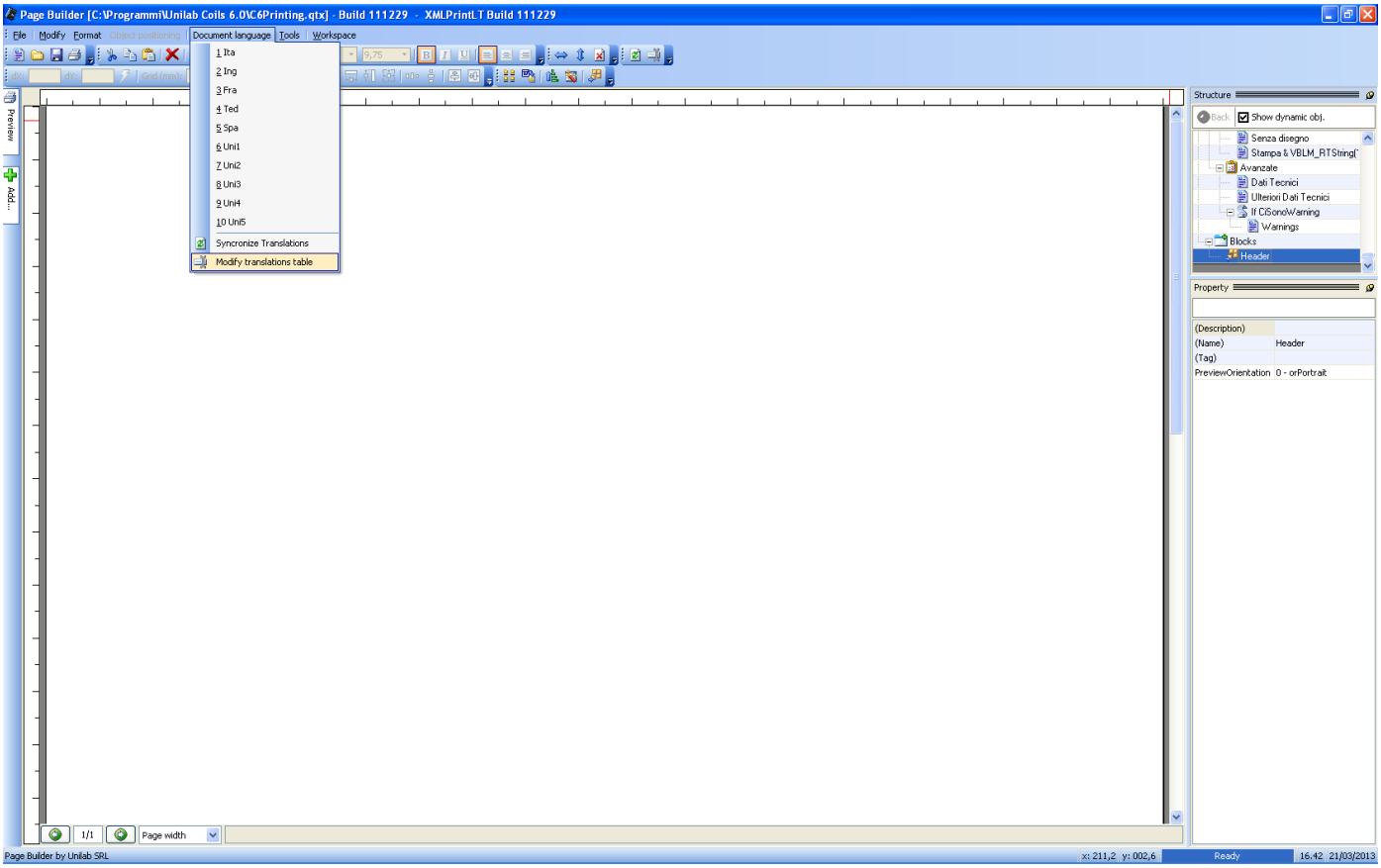
Page Builder provides the user with a powerful tool for translation management. This is a table in which each word or phrase inserted into the document has an identification code, and it can be translated into the languages you want, up to a maximum of 10.

When you set one of these translations in an object "Text" or "Text with variable", the corresponding property is put only the code of the translation, such as ^ 1002, and that the print page will be generated each time, the code is replaced with the corresponding text, translated into the language of your choice. You can also concatenate multiple translations at once: for example, by setting the "Text" in this way:

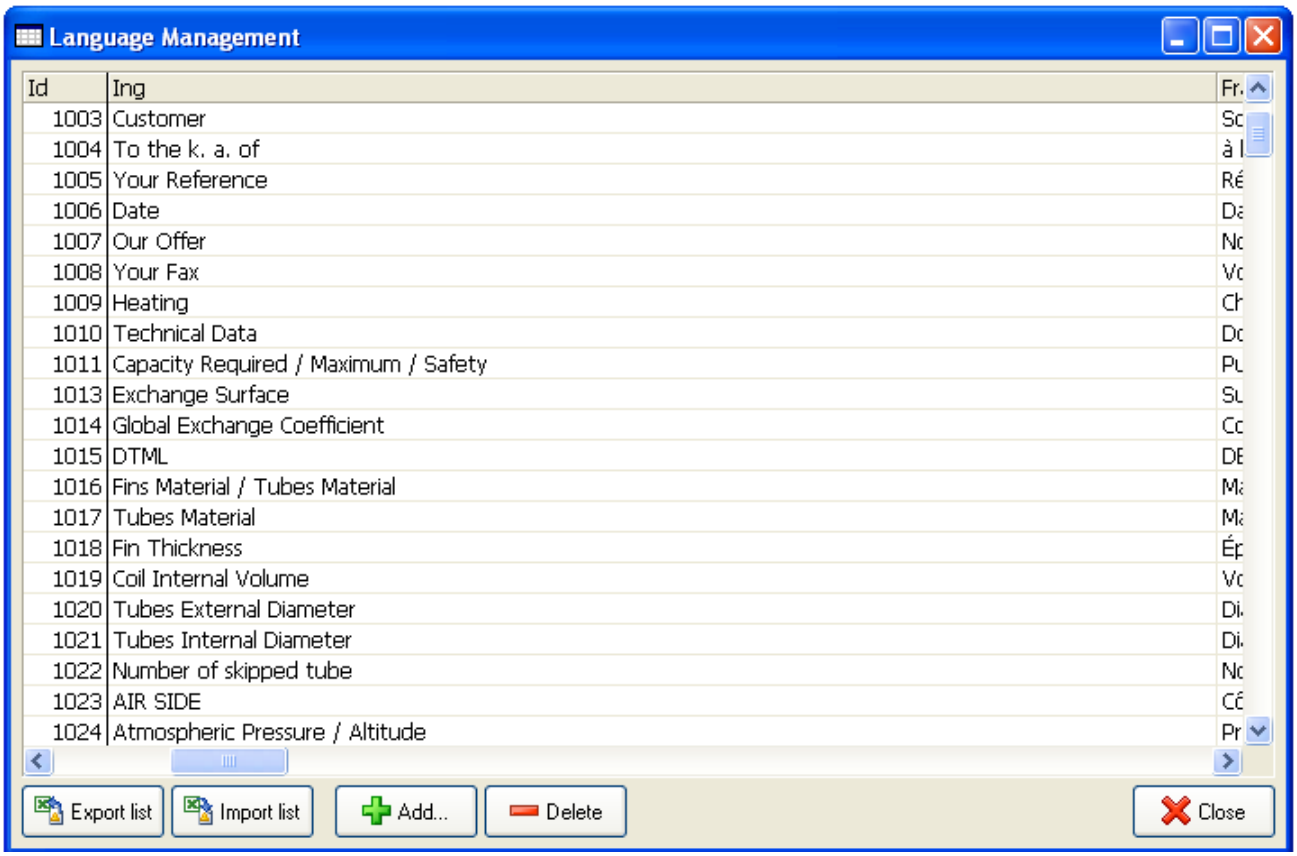
Text = "^1002 ^1004"

The two translations are concatenated, for example:

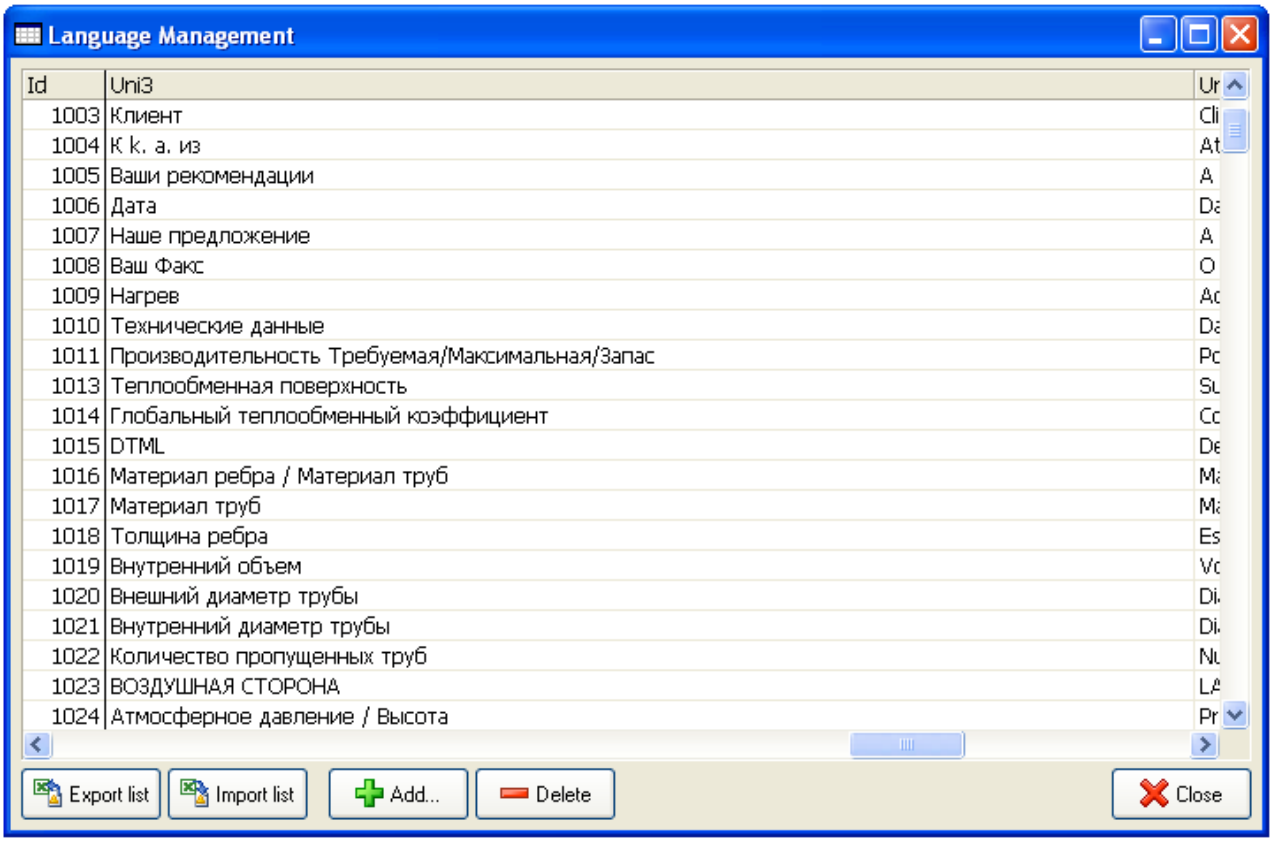
Text = "Customer OK"
The translation management tool is accessible via the menu "Language of document" under "Edit table translations":



This will open the mask translation management:



When you click to go to the left of the table, you have access to other languages set:



With this mask you can add new translations, delete, export the list to Excel for example to send a translation office and then import it.

Using plugin of Coils

Page Builder implements a mechanism to simplify the task of customization of printable pages of certain programs, such as coils. This mechanism allows the:

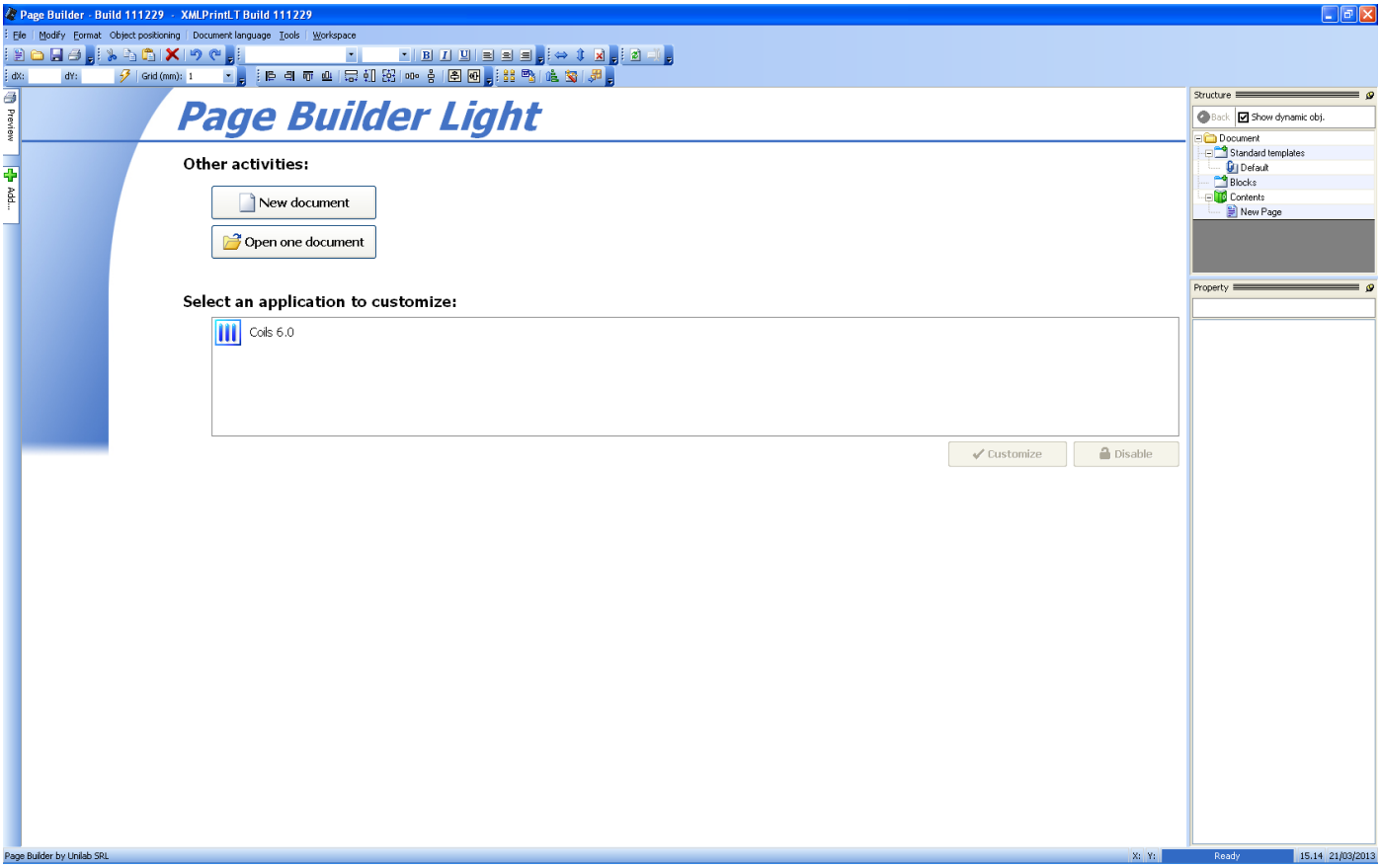
- access to translations of the program
- display the formulas and the variables of the program in a simpler format, translated into the language of the user.

To use this plugin, you must have Coils installed in the same location and the plugin installed correctly in Page Builder.

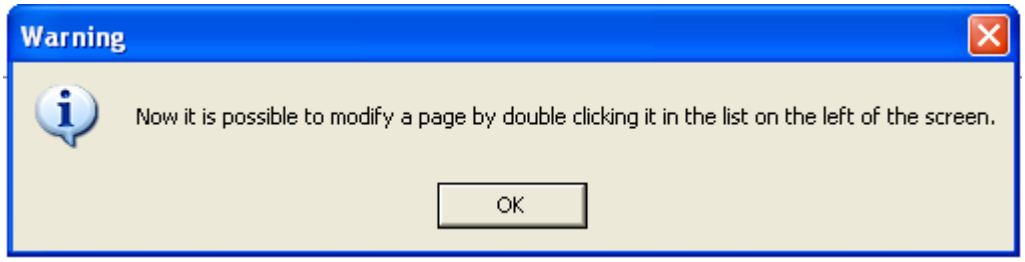
Once this is done, you can connect Page Builder to Coils.

Connection to Coils

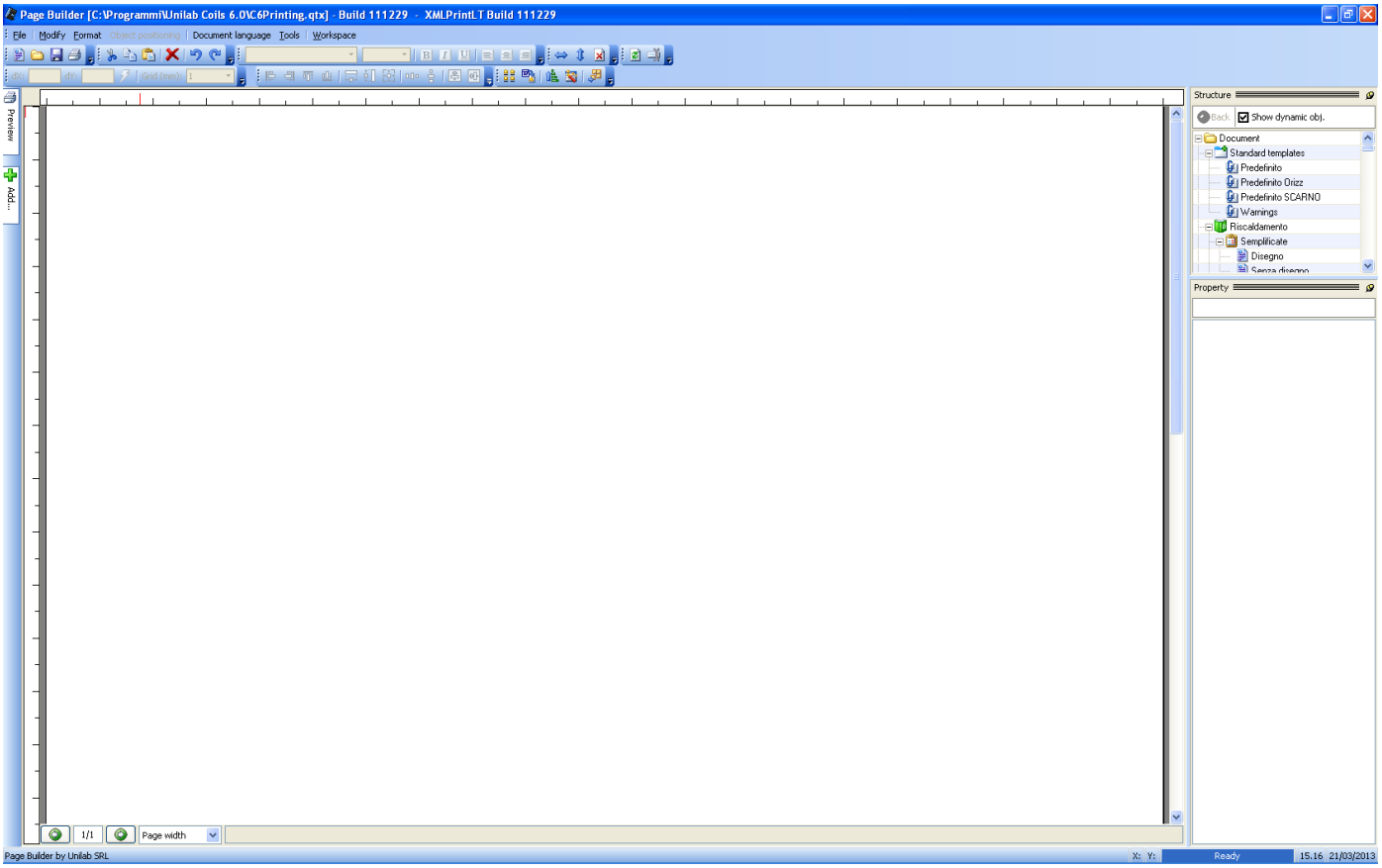
To start Page Builder. When the program is ready, you will see the Welcome screen:



Click on "Coils 6.0" in the list of programs to customize, and click on "Customize". After loading the document QTX corresponding the message will be displayed:

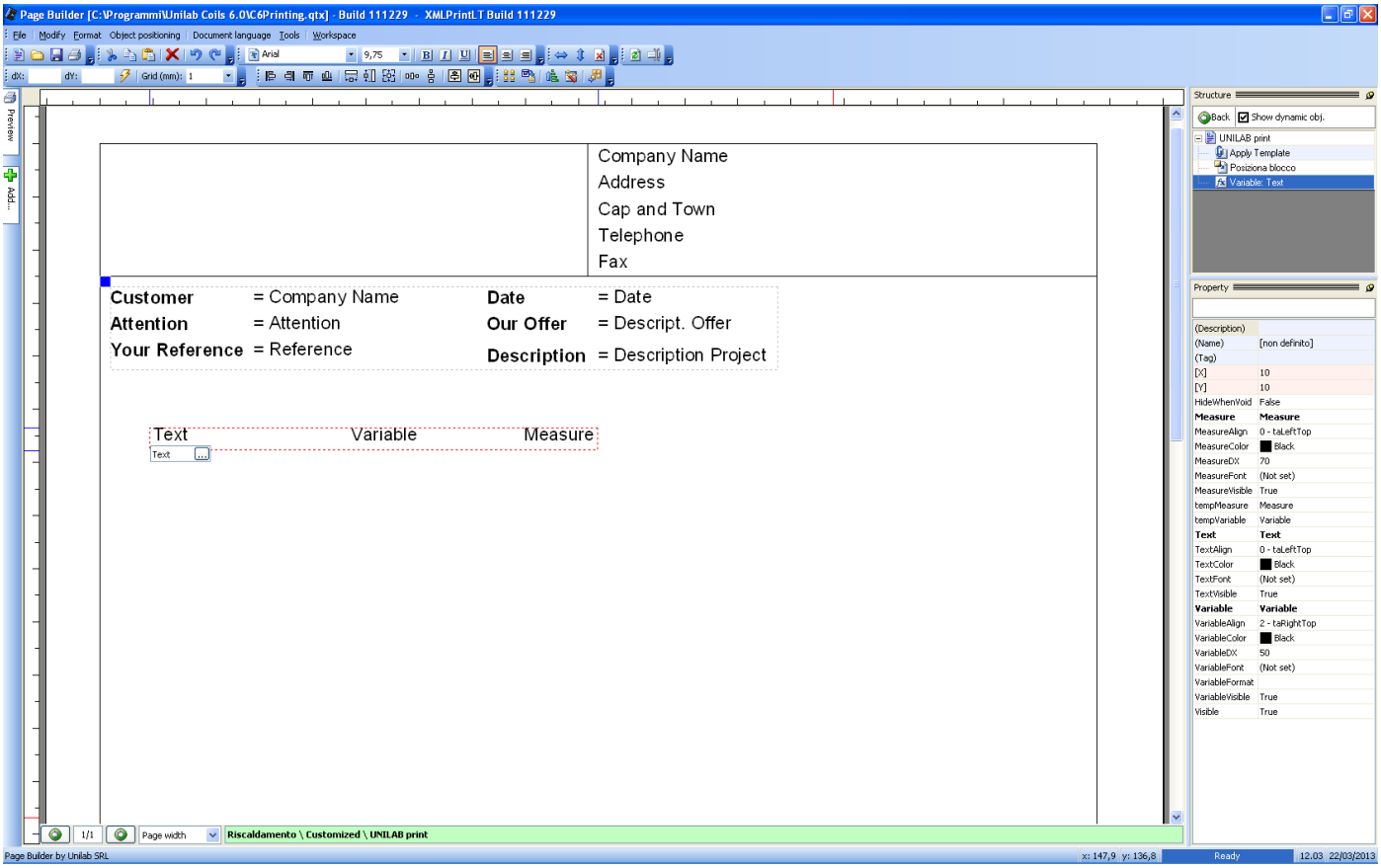


At this point you can change the printable pages of Coils:

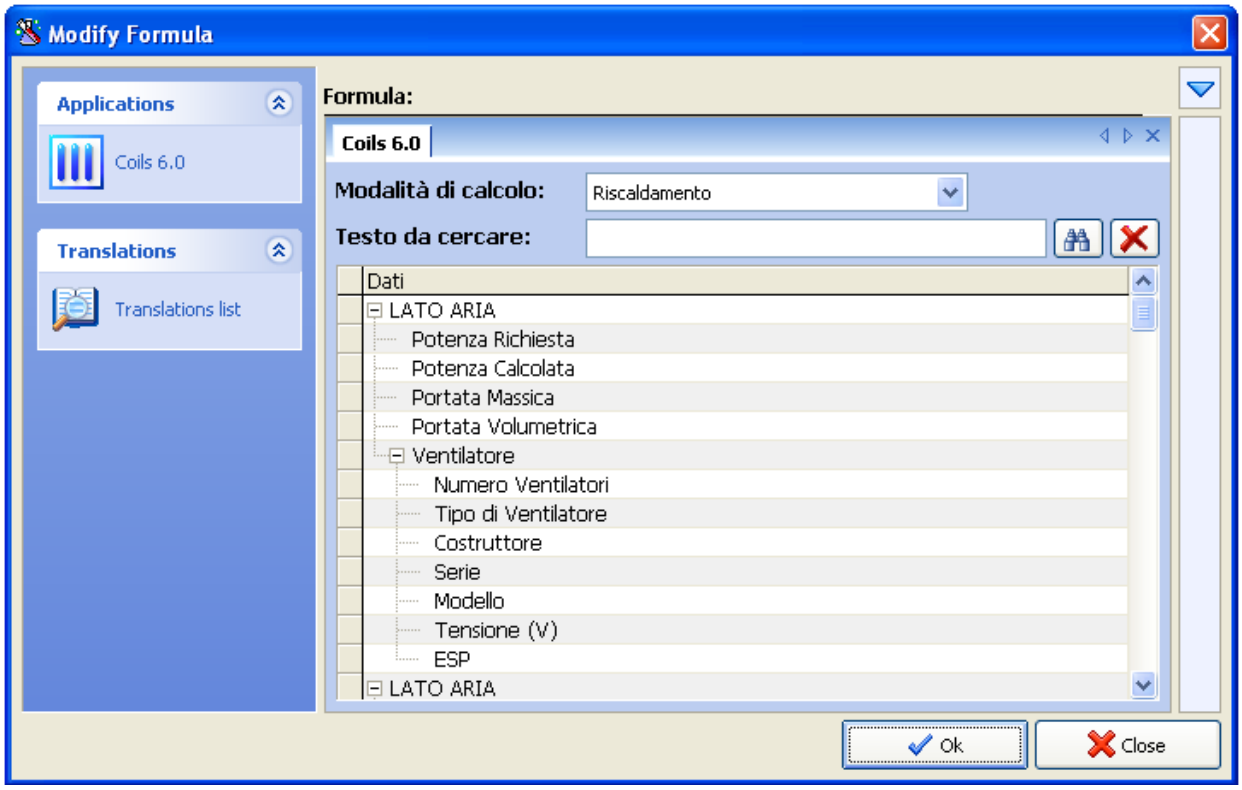

Page Builder [C:\Programmi\Unilab Coils 6.0\C6Printing.qtx] - Build 111229 - XMLPrintLT Build 111229
File
Modify
Format
Document language
Tools
Workspace
Preview
Add...
Structure
Back
Show dynamic obj.
Document
Standard templates
Predefinito
Predefinito Orizz
Predefinito SCARNO
Warnings
Riscaldamento
Semplificate
Disegno
Property
1/1
Page width
Page Builder by Unilab SRL
X: Y:
Ready
15.16 21/03/2013

Using formulas

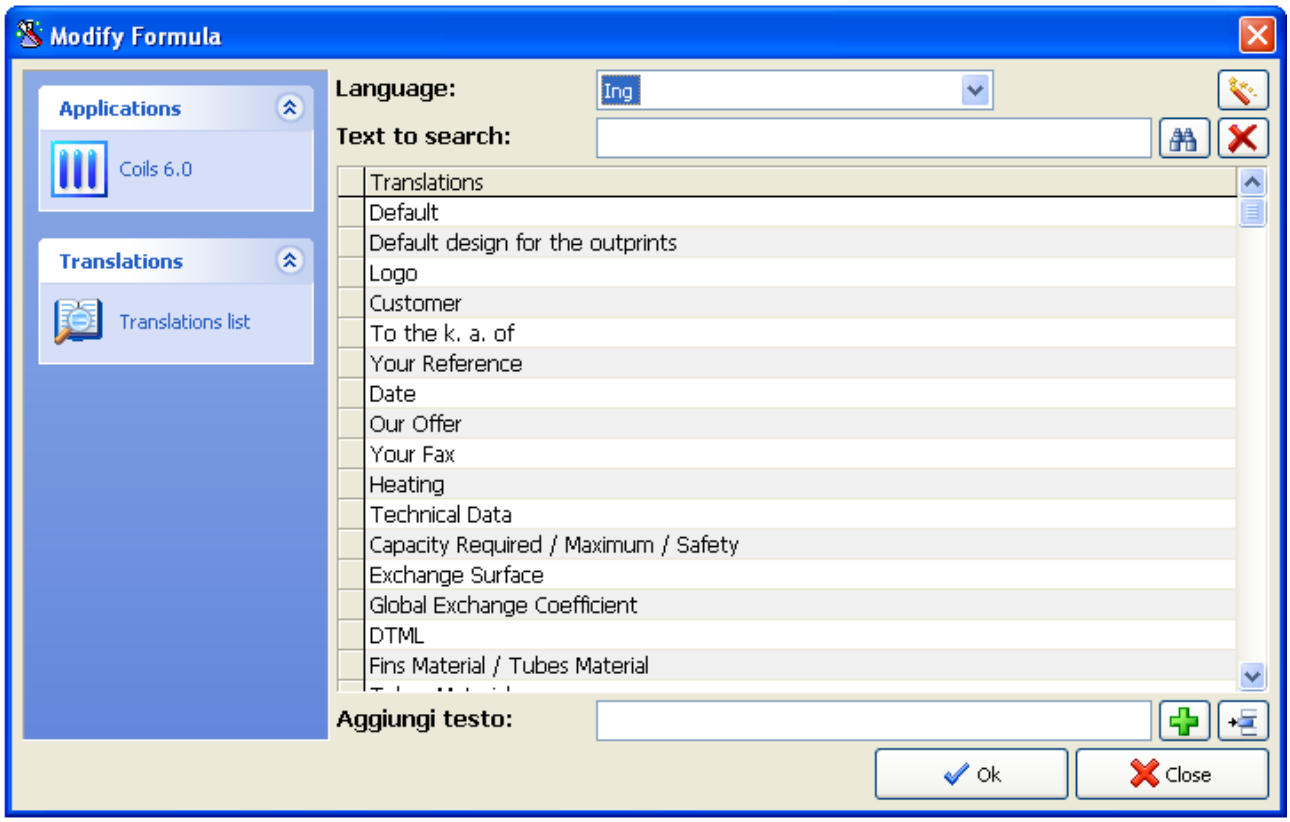
One of the biggest advantages of using the plug-in of Coils 6.5 is to access the list of variables and formulas Coils 6.5 in a simplified way. We suppose that you want to display in our printing page the total power calculated by the program. We insert an object on the page "Text with variable" following the above procedure:



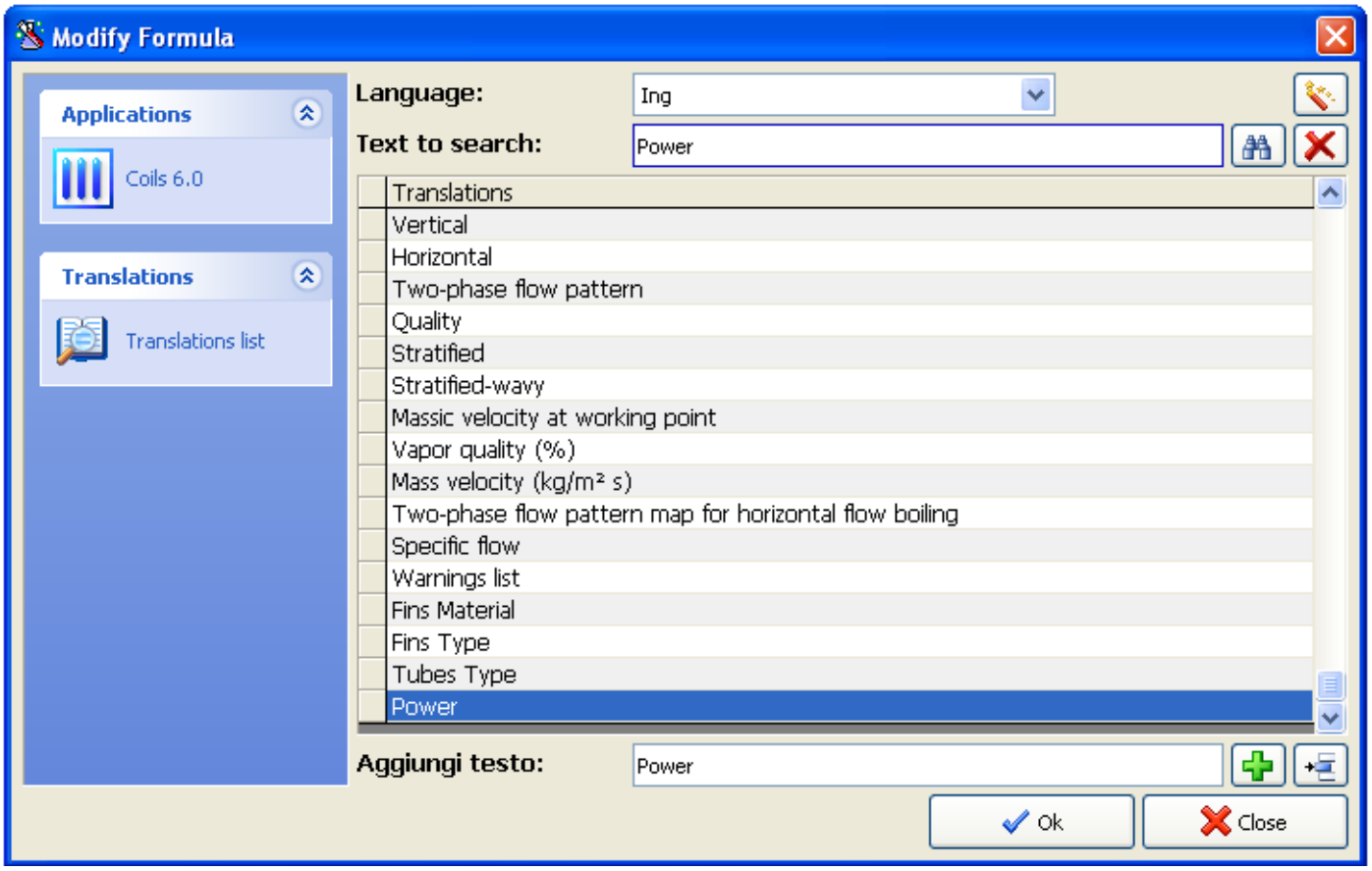
We set the translated text by clicking the button "…":



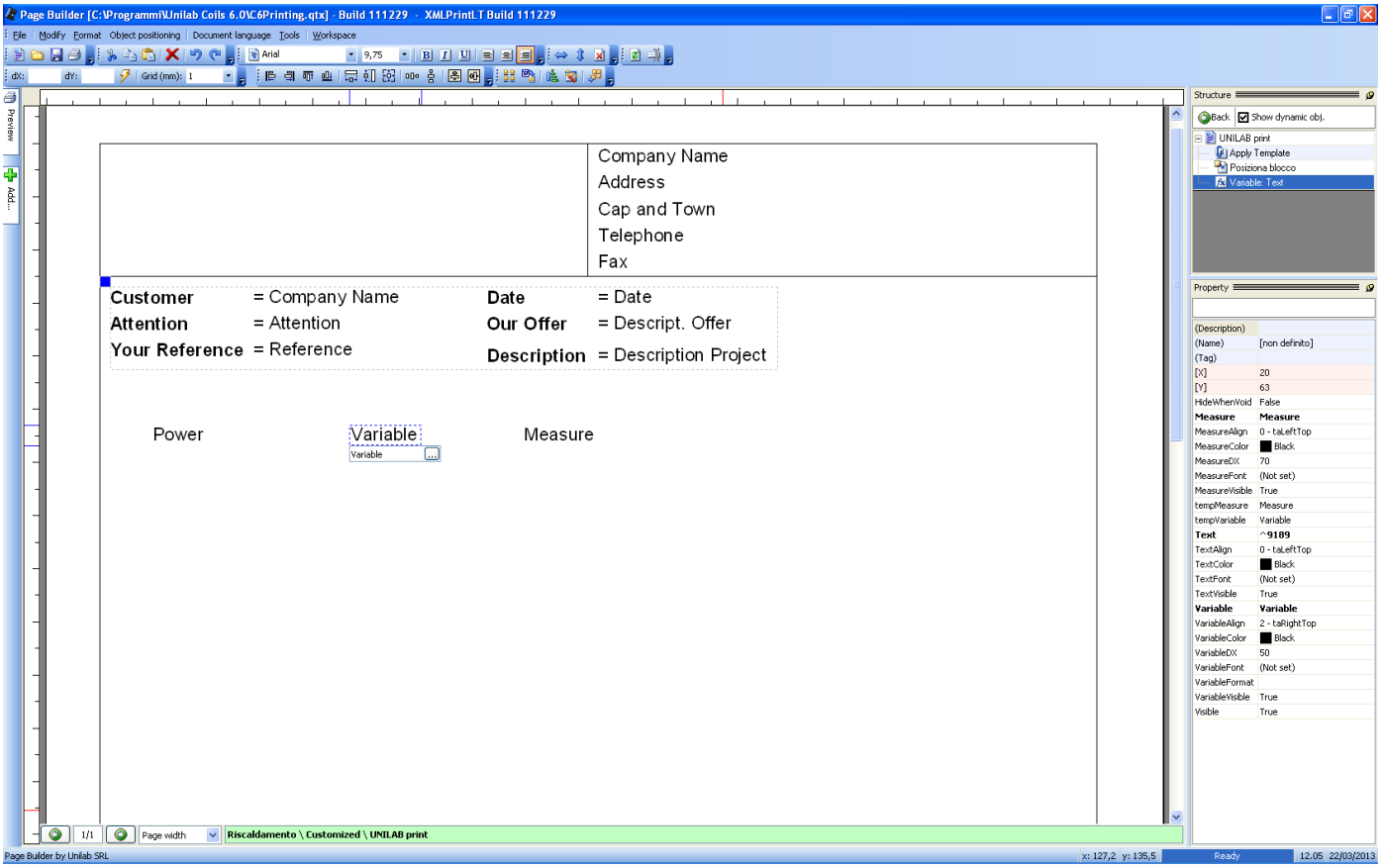
The program opens the list of variables, but we click on "List of translations" to display the table of translations:



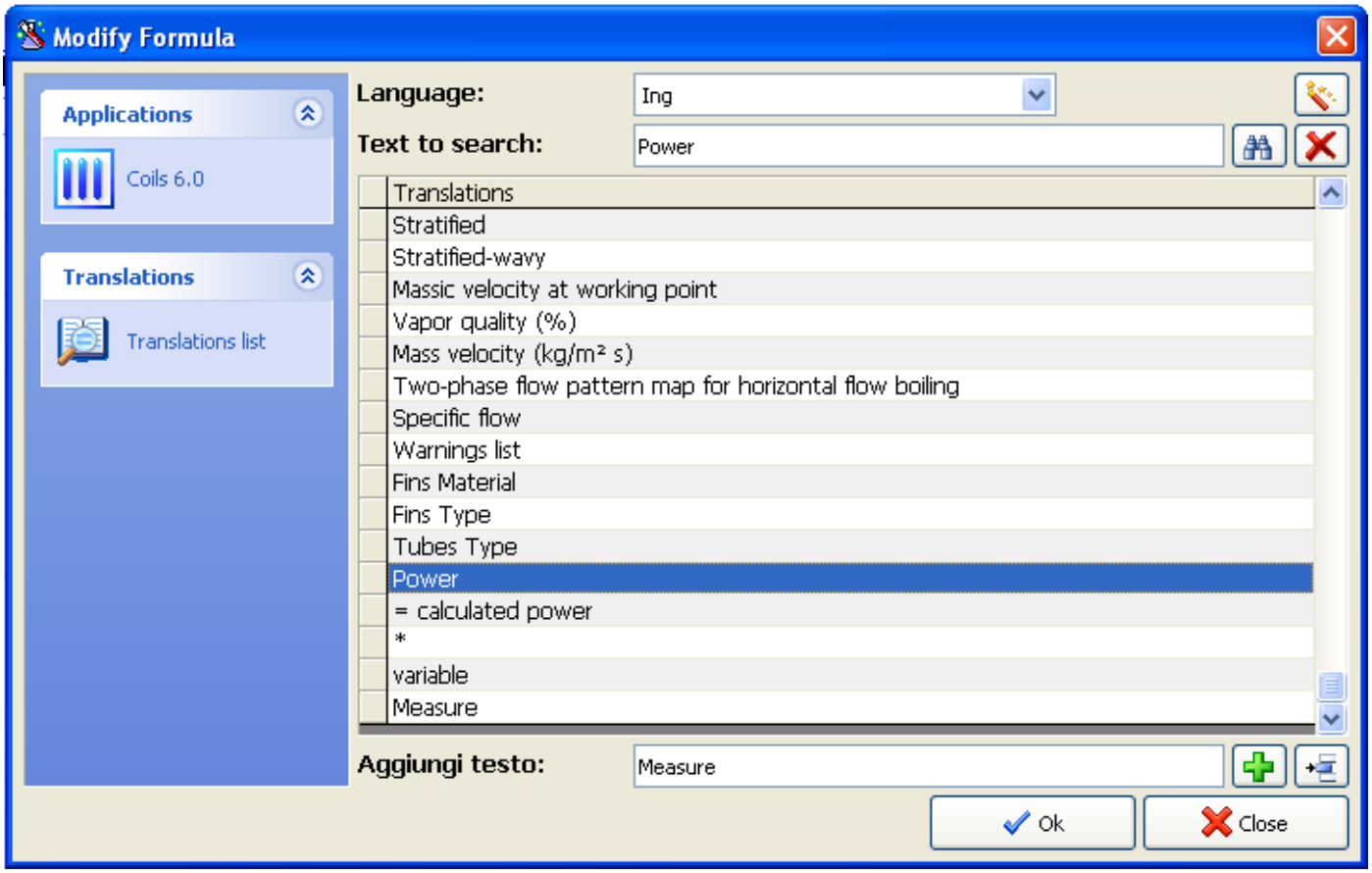
In the "Search Text" write "power" and we click on the button with the binoculars:



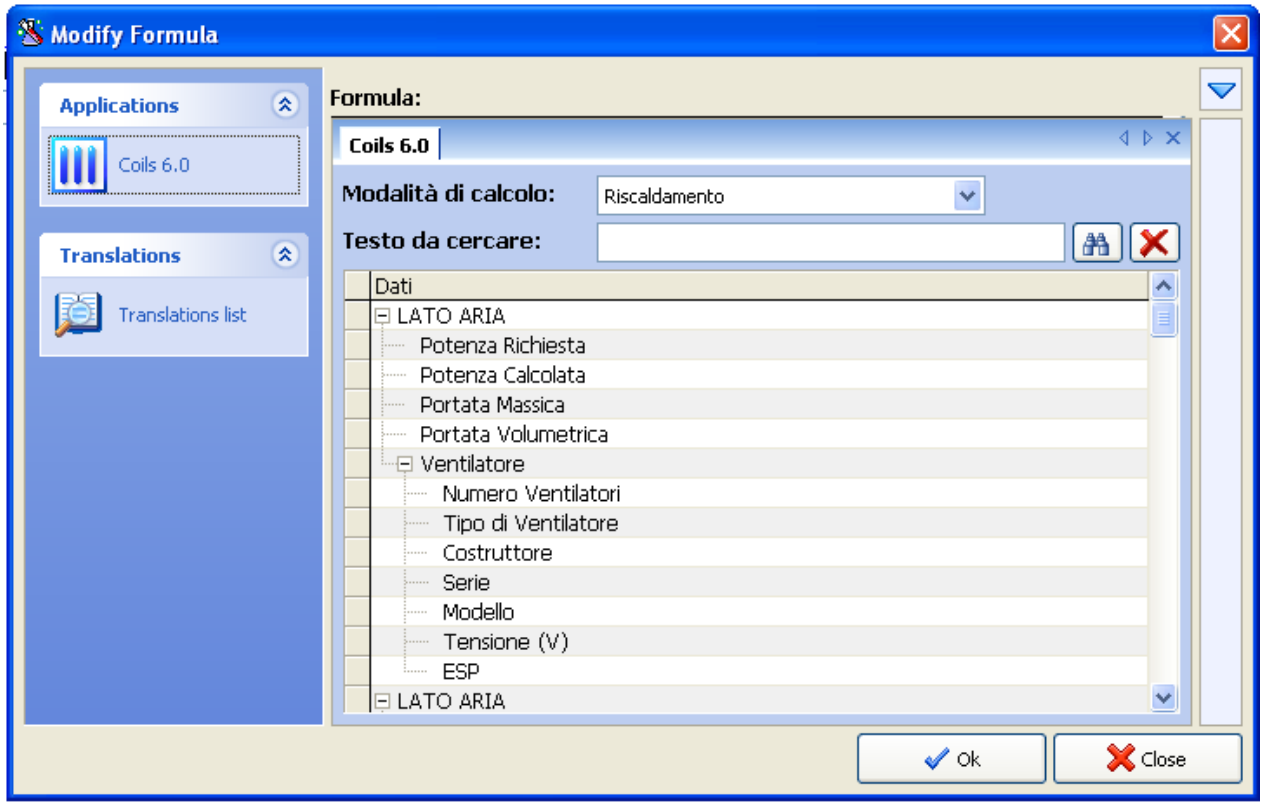
The program will search for all the translations that include the search text. To select "Power" and click "Ok":



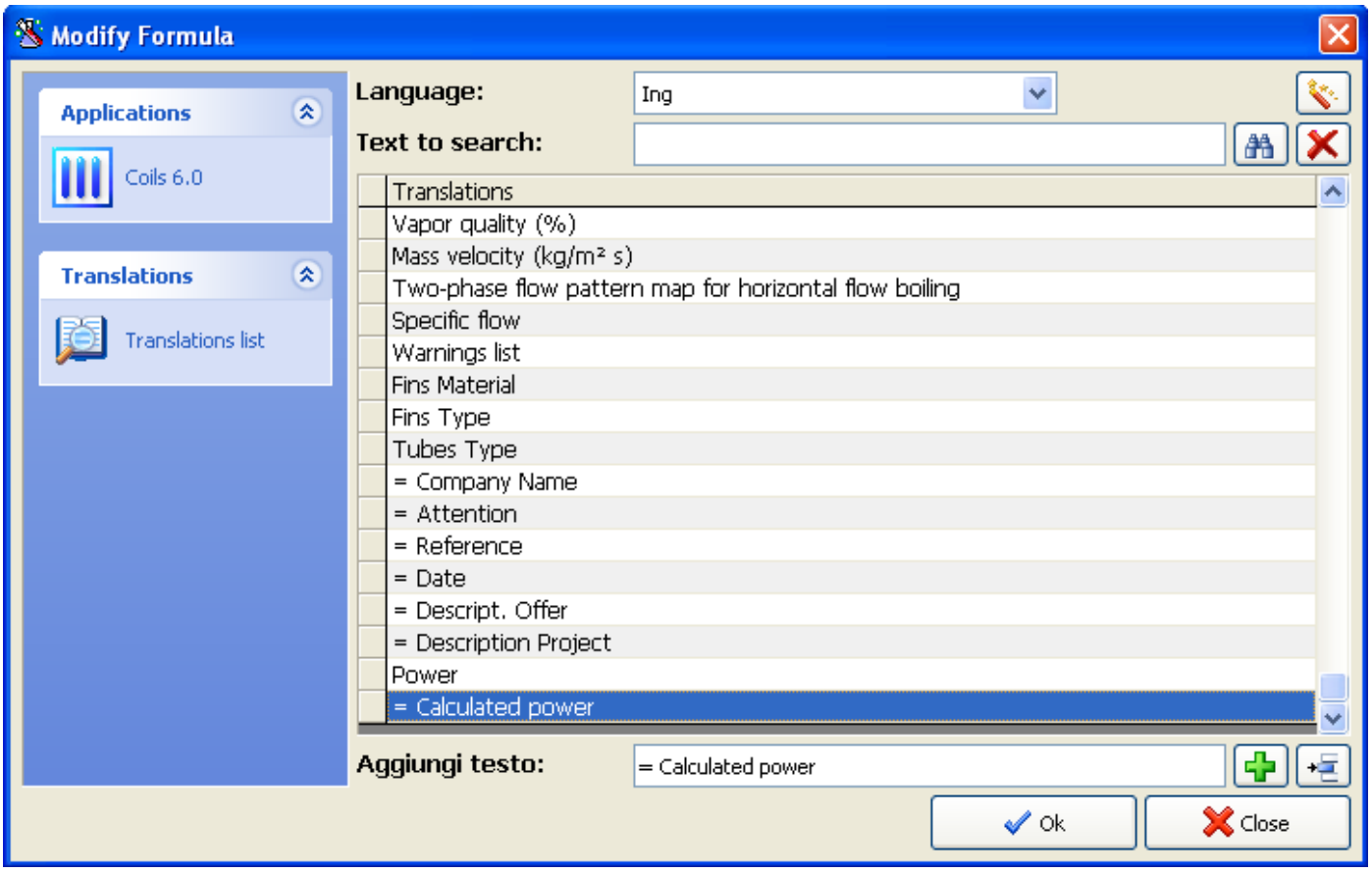
Clicck on "Variable" and click on button "…":



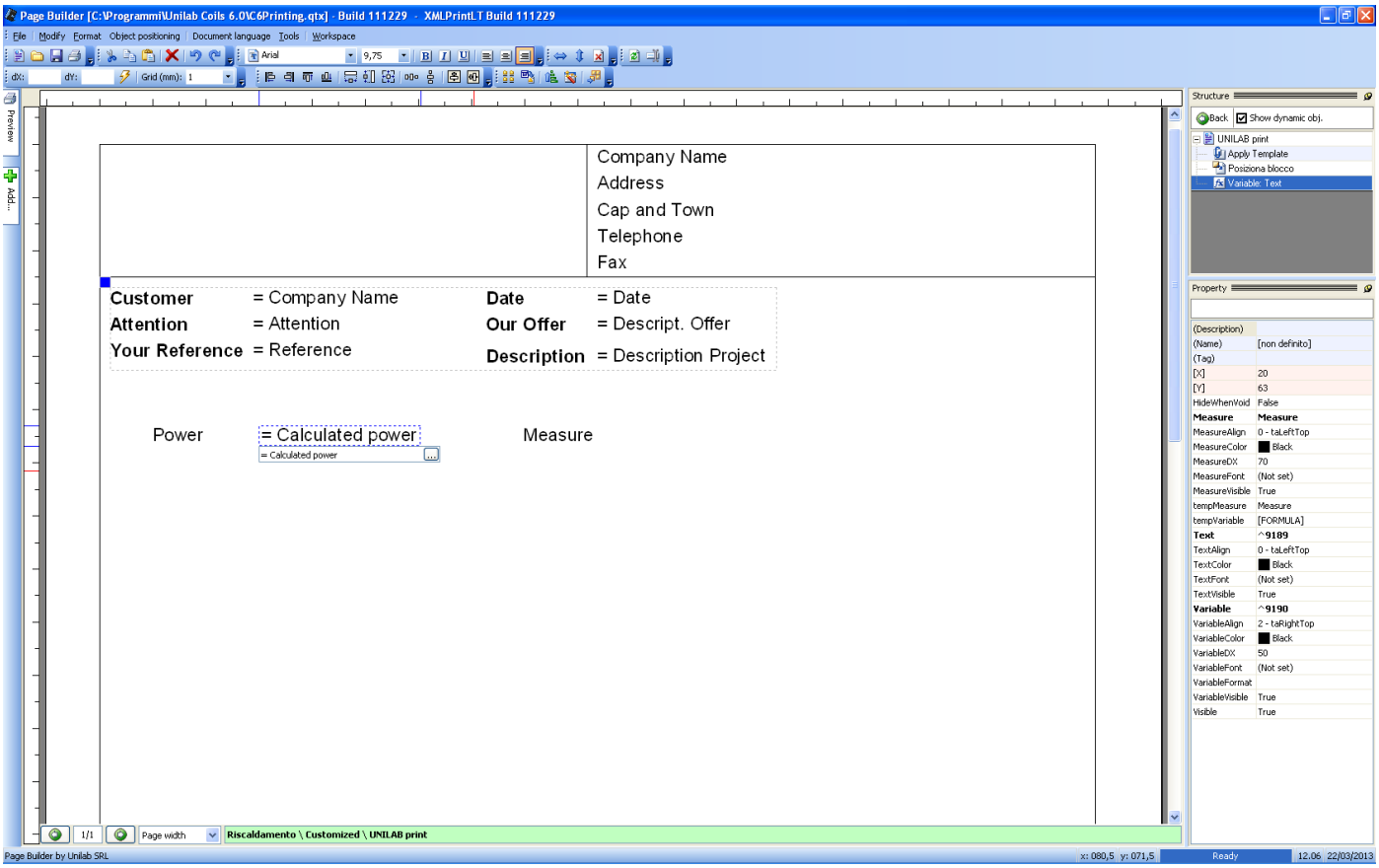
Click on "Coils 6.0" to display the list of the variables:



To select from the list "Calculated Power":

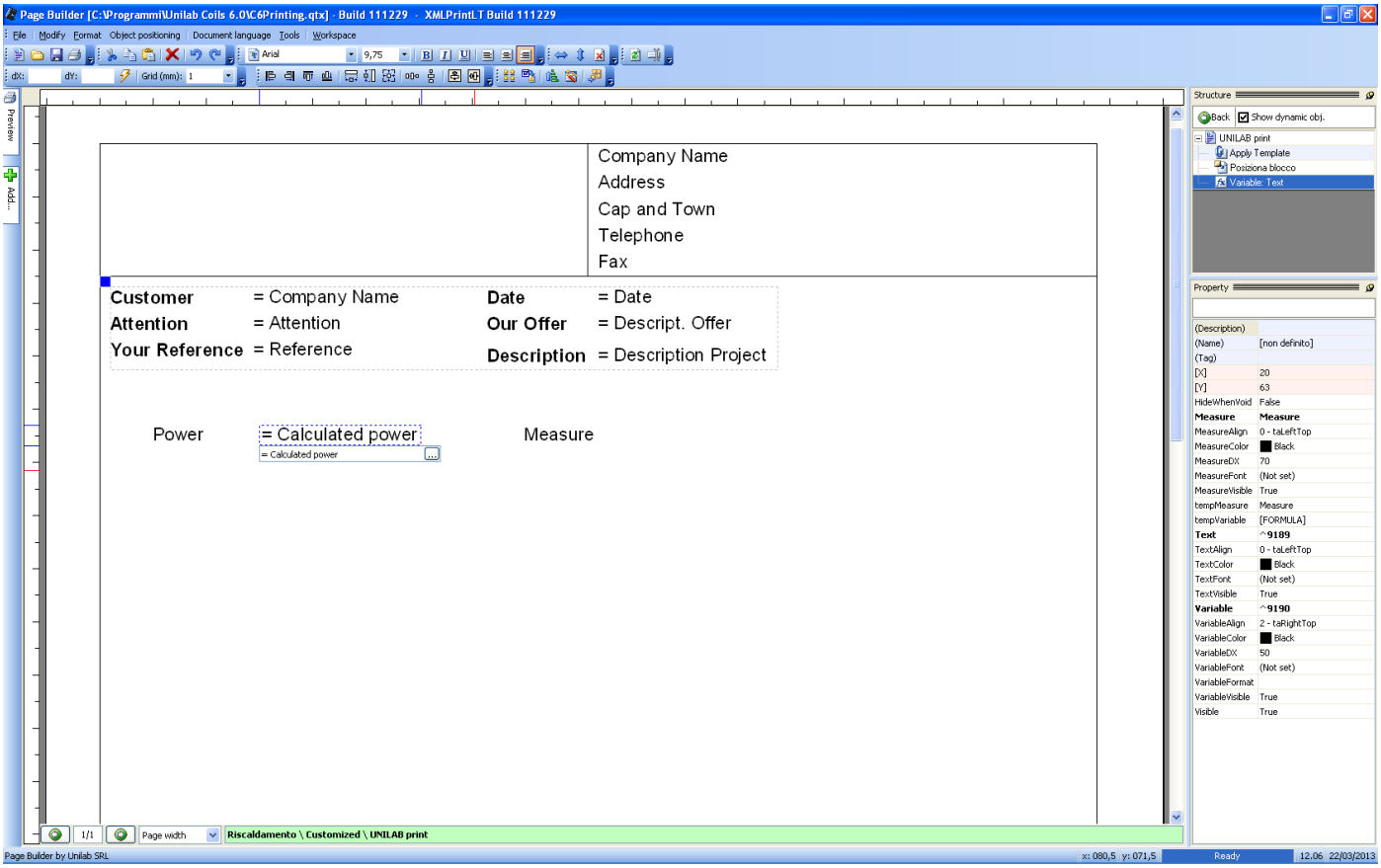


Click on "Ok":

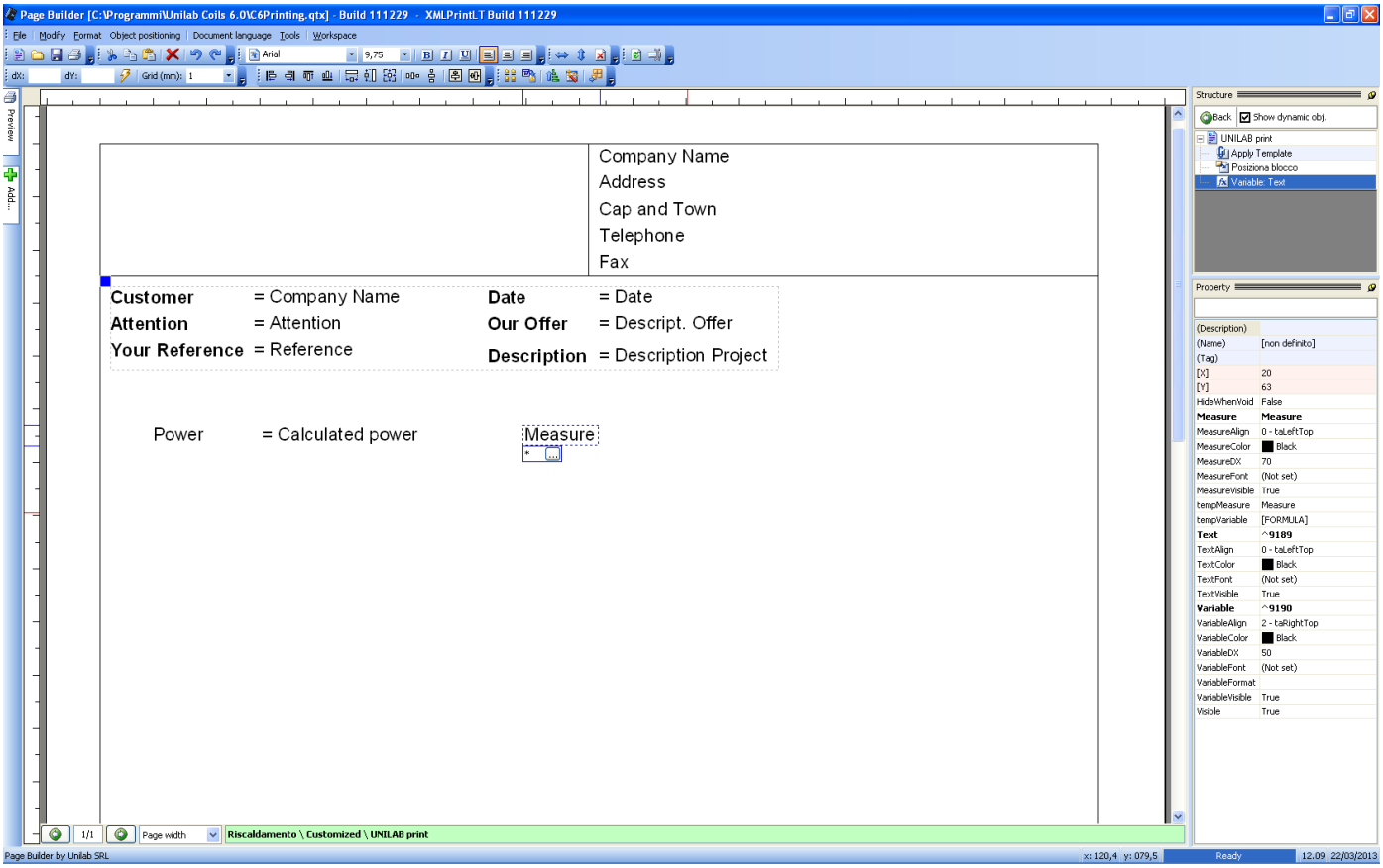


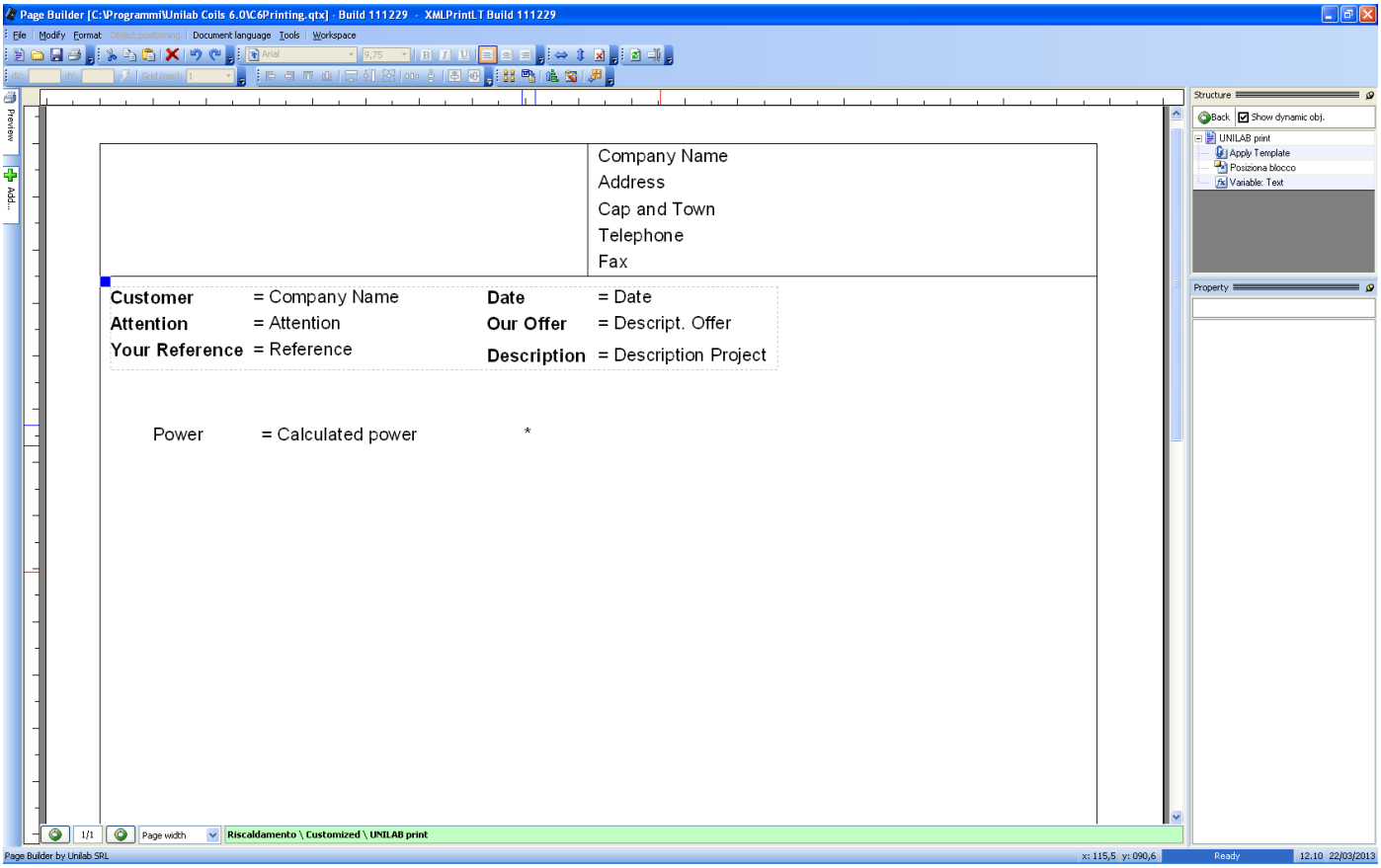
To move the variable so that it does not overlap the text, bringing it closer to the "Measure":

To select "Measure" and set to "*", because Coils can automatically set the unit of measure set by the user mask:



The result will be:





At this point you can add other variables in the same way, by searching in the list displayed by the plugin of Coils.