

EmbedDraw VCL & FMX STD



User Guide

3.2.0

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2.Introduction

EmbedDraw 3.2 is a graphical editor for label design, flow charts, generated diagrams and CAD-style technical drawings. Depending on the selected editor mode, users can create and edit objects, work with layers, copy and paste, zoom, preview, print, save or export documents, and use specialised drawing operations. Version 3.2 also adds Mermaid and PlantUML import, animated symbols, geographic GML/GPX layers, MCP integration and optional AI-assisted tools.

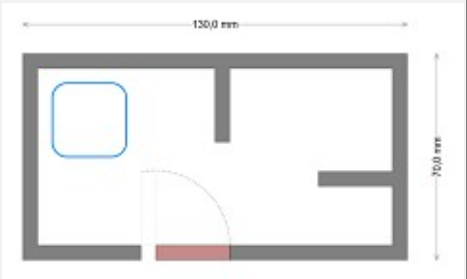
LABEL DESIGN	FLOW CHART	CAD DRAWINGS
TEDWEditor.EditorMode:= emLabelling	TEDWEditor.EditorMode:= emFlowChart	TEDWEditor.EditorMode:= emDrawing
		
Label design with text, paragraphs, lines, iages, barcodes, etc., which can be linked to a database, csv or json to fill in the data. Several can be printed on a page.	Flowchart design that uses special shapes to represent different types of actions or steps in a process. Various types of lines and arrows show the sequence of steps and the relationships between them.	Technical drawing editor, group objects by layers, set a drawing scale, extend, trim and join lines, draw equidistant lines, draw dimensions and dimensioning styles.
millimeters, centimeters and inches	millimeters, centimeters and inches	millimeters, centimeters, decimeters, meters, feet, yards and inches
Drawing scale 1	Drawing scale 1	We can set drawing scales different from 1, this affects the dimensions measurements and the size of the predefined symbols we insert.
We can rotate the label left or right	We can't rotate the drawing	We can't rotate the drawing
We can arrange the labels to be printed on a paper in rows and columns, or we can make the label size match the print size.	The drawing area matches the printing paper size	The drawing area matches the printing paper size

Table1 EmbedDraw modes

TEDWEditor.EditorMode:= emInteractive will be used to draw path animations.

3. Diagrams from Mermaid and PlantUML

EmbedDraw 3.2 can load a Mermaid or PlantUML text description and turn it into an editable drawing. This is different from importing an image: every generated node, connector, label and shape remains a normal EmbedDraw object that can be moved, restyled, connected, printed and exported.

Opening a diagram

1. Save or obtain the Mermaid or PlantUML source text.
2. Use the diagram-import command provided by the host application and select the file. Applications can also import source held in memory.
3. If the application offers a format choice, leave it on automatic detection unless the source has no recognisable extension or header.
4. After import, review the generated objects and edit them with the normal flow-chart and drawing tools.

Automatic detection recognises Mermaid files `.mmd` and `.mermaid`, plus PlantUML files `.puml`, `.plantuml`, `.pu`, `.iuml` and `.wsd`. Text files can also be detected from their content. UTF-8 is preferred; ANSI files are accepted as a fallback.

What can be imported

Language	Principal supported diagrams
Mermaid	Flow charts and graphs, sequence diagrams and basic Gantt charts. EmbedDraw 3.2 also recognises state, class, mind-map, entity/relationship, requirements, git graph, timeline, journey, C4 and other structured Mermaid families.
PlantUML	Activity, sequence and state diagrams; Gantt charts; mind maps; Archimate relationships; structural UML, WBS, C4, timing, network, chronology, data, wireframe, grammar, file-tree, Ditaa and Chen diagrams.

Common flow-chart shapes such as processes, decisions, databases, start/end nodes and data shapes are preserved as the nearest native EmbedDraw flow-chart shape. Solid, dotted and labelled connections are converted to editable connectors and text. Sequence diagrams create participants, lifelines, messages and supported notes. Gantt tasks and milestones, mind-map hierarchies and supported Archimate relationships are also converted into native elements.

Important behavior

- Importing a diagram replaces the current drawing. Save any existing work first.
- The page is resized automatically to fit the generated content.
- Flow-chart mode is recommended when reviewing or editing the result.
- A successful import requires at least one recognised item.

Partial support and diagnostics

Mermaid and PlantUML are large languages. EmbedDraw prioritises editable basic and medium-complexity diagrams. Unsupported styling or advanced blocks may be skipped or simplified while the recognised part is still imported. Depending on the host application, parser diagnostics can identify the source line and reason; strict validation can reject a partial diagram instead. Always review the generated result before relying on it for production output.

Typical current simplifications include Mermaid subgraph containers and style/class definitions, advanced PlantUML activity constructs, multiline sequence notes and sequence frames, activation bars, compound states and exact reverse ordering for BT/RL layouts.

4.Symbol path animations

Symbols can now move along configured geometric paths in interactive drawings. A path may be a line, polyline, circle, ellipse, arc or Bezier curve.

Animations can run once or repeat, move backwards and forwards, rotate the symbol to follow the path, use acceleration/deceleration curves, pause, resume, reset or jump to a selected position. Applications can also react when a path point, cycle or complete animation is reached.

4.1 Application controls

An application can expose individual Start, Pause, Stop, Reset and position controls, or apply them to every animated symbol. It can also select repeat count, start delay, ping-pong travel, automatic rotation, speed and easing. If the interface becomes temporarily blocked, the maximum delta setting prevents symbols from jumping a large distance on the next frame. Animation is intended for interactive drawing mode and does not alter the underlying path geometry.

You can see in Drawing demo how path animation works.

5.GML maps and cadastral data

EmbedDraw 3.2 can load cadastral GML polygon files and display them over an online map. The loader reads the coordinate system declared by the GML, positions the parcel correctly, calculates the drawing scale and creates separate map and parcel layers.

The map provider, zoom and geographic centre are saved with the map layer. The background can be printed or exported when its layer options allow it. Because the online map is downloaded asynchronously, the map and parcel layers become visible together when composition has finished.

5.1 What the import creates

The import creates separate map and parcel layers. Parcels remain selectable and editable while the map is kept underneath for printing and export. The chosen map provider and zoom remain assigned to the map layer and can be inspected later in layer properties. Files using an unsupported coordinate reference system require an application-provided coordinate transform.

6.GPX tracks, routes and waypoints

GPX 1.0 and 1.1 files can be loaded as editable geographic drawings. Recorded tracks and planned routes become polylines, while waypoints are shown as markers over an online map.

Automatic zoom fits the complete GPX recording on the page. Track segments remain independent, tracks are shown in blue, routes in red and waypoints in yellow. The selected map provider and location are stored with the layer and can be reviewed later in the layer properties.

6.1 What the import creates

Track segments are shown in blue, routes in red and waypoints as red/yellow markers. The map is stored on a separate background layer. Zoom 0 fits all GPX content automatically; a fixed zoom may be supplied when identical scale is required across several imports. Elevation and timestamps are parsed even though the initial drawing represents the geographic path in two dimensions.

7.MCP Server

The new **TEDWMCPServer** component lets compatible applications and AI assistants interact with an EmbedDraw document through the Model Context Protocol (MCP).

An MCP client can inspect the drawing, add or modify elements, manage layers, create diagrams, work with symbols, render a preview and save or export the result. The server listens on localhost by default and should only be exposed to a network after authentication and allowed origins have been configured.

7.1 Basic configuration and security

Setting	Recommended use
DrawLabel	Select the EmbedDraw document exposed by the server.
Port / EndpointPath	Default connection is port 3001 at <code>/mcp</code> .
BindAddress	Keep <code>127.0.0.1</code> unless remote access is required.
AuthToken	Required automatically when binding outside localhost; store it as a runtime secret.
AllowedOrigins	Restrict browser origins explicitly for remote use.
Request/image limits	Keep finite limits to prevent unexpectedly large JSON or image requests.
LogPayloads	Leave disabled when logs could contain drawings, prompts or confidential data.

8.AI tools

EmbedDraw 3.2 includes optional AI-assisted tools that can use Anthropic, OpenAI or Gemini models. They use the same controlled drawing operations as the MCP server, so generated content remains made from editable EmbedDraw objects.

An image can be analysed to create a reusable `.lyp` symbol library, and applications can build tool-driven workflows for creating or editing drawings. AI access requires a provider, model and API key configured by the host application. Generated results should always be reviewed before use.

8.1 Operational notes

API keys are runtime secrets and are not stored with the visual component. The host application must execute and validate every requested drawing tool; the AI service does not receive direct unrestricted access to the computer. Limit input image size, review generated symbols and drawings, and display provider errors to the user without exposing the key or complete confidential payloads.

9.Drawing editor

To design labels, diagrams or technical drawings, a complete editor is available with different functionalities depending on the type of drawing. For example, the ability to rotate the drawing left or right is only available in label mode.

You can change the zoom by using the bottom left list of the editor and selecting the desired zoom, or you can hold down the CTRL key and scroll the mouse wheel up (zoom in) or down (zoom out). Without any key pressed, we can scroll the drawing up or down by moving the mouse wheel up or down. With the SHIFT key pressed we will scroll to the right or left.

You can activate orthogonal line drawing by pressing F8, snap to grid can be activated and deactivated with F9.

9.0.1 Labelling mode

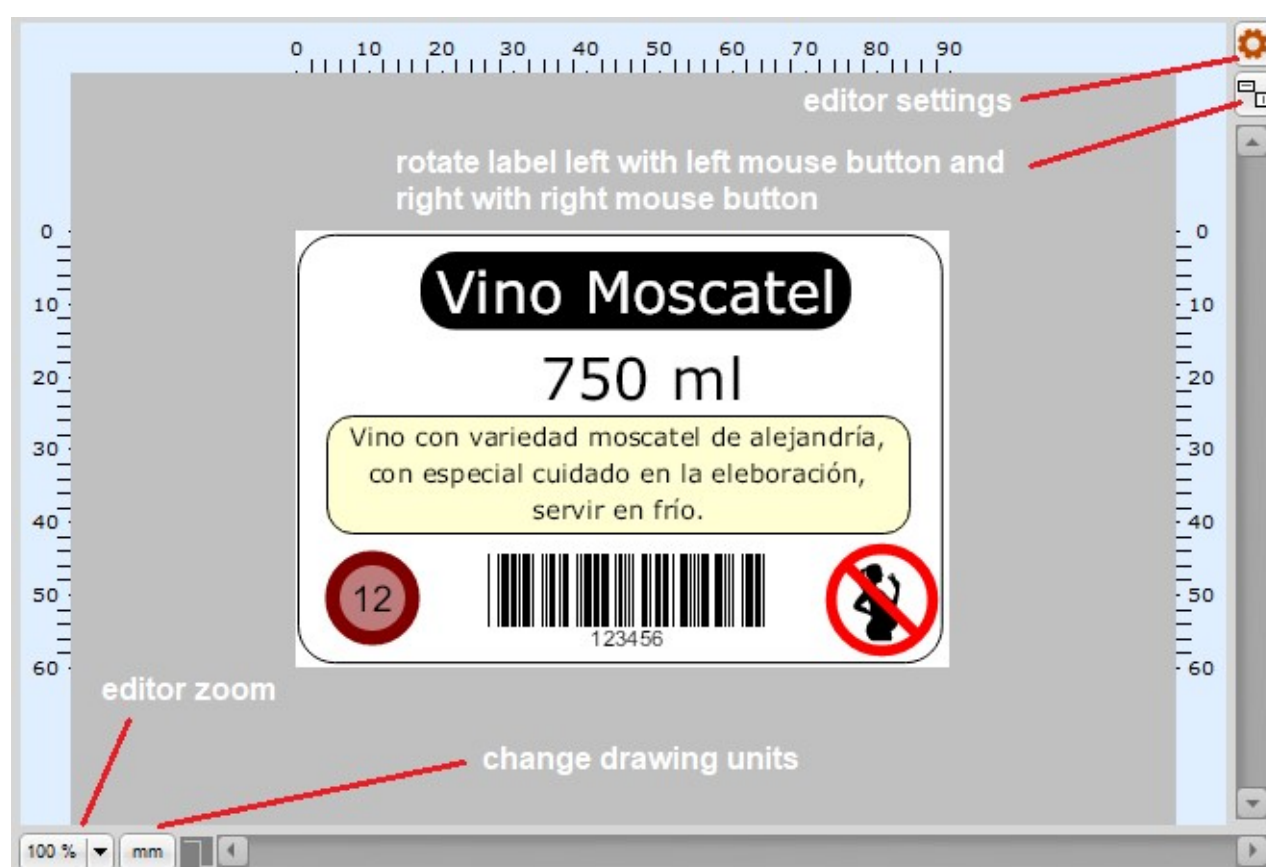


Fig.1 Label editor

10.Component integration reference

Applications can integrate the visual editor through a small set of public component properties and methods. These members are useful when creating custom toolbars, previews and symbol browsers without replacing the standard EmbedDraw interface.

10.1 TEmbedDrawVCL and TEmbedDrawFMX

Task	Member	Use
Inspect content	ItemsCount, Item[Index]	Enumerate all elements in the drawing.
Inspect selection	SelectionCount, Selection[Index], ElementByID	Read the current selection or find a named element.
Manage changes	Modified, Undo, Redo, IsUndoEmpty, IsRedoEmpty	Enable Save, Undo and Redo commands correctly.
Batch updates	BeginUpdate, EndUpdate	Apply several changes without intermediate repainting.
Layers	AddLayer, SetActiveLayer, DeleteLayer, LayersCount, ActiveLayer	Build and control document layers programmatically.
Serialization	GetJsonString, SaveToFile, SaveSVG, ExportDoc	Store or export the drawing.

10.2 Auxiliary components

Component	Main properties /methods	Use
TEDWEditor	EmbedDraw, Zoom, Grid, Snap, Rulers, alignment methods	Provides interactive editing, rulers, grid and selection commands.
TEDWInspector	EmbedDraw, InspectProp, Options, color properties	Displays and edits properties of the current selection.
TEDWPreview	EmbedDraw, ViewType, ContentWidth, ContentHeight, Margin	Shows a synchronized document preview.

TEDWViewLibrary	LoadSymbols, Selection, IdSelection, SymbolWidth, SymbolHeight, OnChangePos	Displays categories and symbols from a reusable library.
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Connect each auxiliary component by assigning its `EmbedDraw` property to the same drawing component. This also ensures that component notifications are detached safely when the drawing is destroyed.

11.Drawing settings

We make the label and paper size adjustments from the settings dialog box, depending on the type of drawing we are going to make, there will be two types:

11.0.1 Dialog box for labels

Labelling

Flow Chart

CAD drawing

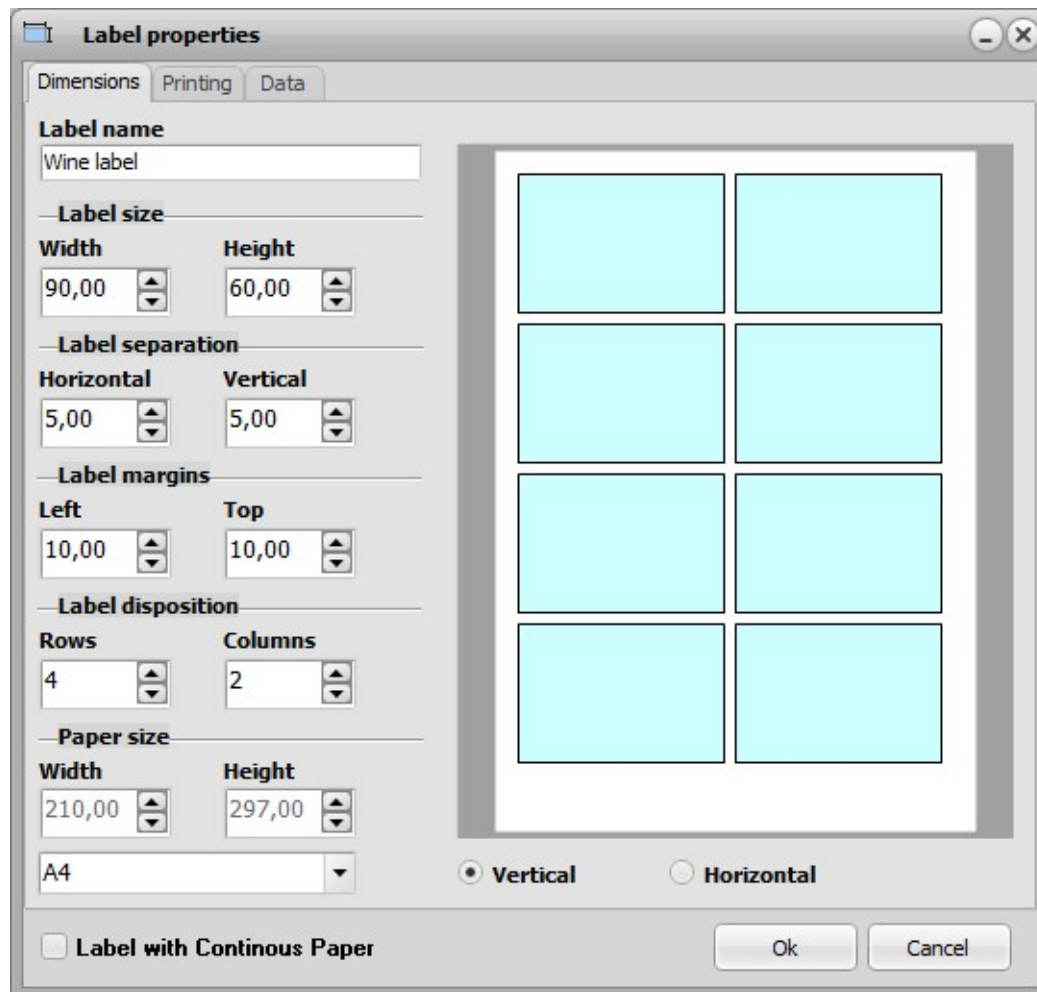


Fig.2 Label settings

In label editor mode we can distribute several labels in rows and columns on the printing paper, we can also indicate the position of the first label to be printed

property	description	units
Label size: Width	label width	drawing units
Label size: Height	label height	drawing units

Label separation: horizontal	horizontal separation between labels	drawing units
Label separation: vertical	vertical separation between labels	drawing units
Label margin: left	gap between the labels in the first column of labels and the left margin of the paper	drawing units
Label margin: top	gap between the labels in the first row of labels and the top margin of the paper	drawing units
Label disposition: Rows	number of rows of labels on the printing paper, on continuous paper it will be 1	
Label disposition: Columns	number of columns of labels on the printing paper, on continuous paper it will be 1	
Paper size: Width	paper width, when we select a paper from the list, the width is assigned here	millimeters
Paper size: Height	label height, when we select a paper from the list, the width is assigned here	millimeters
Paper list	list of different paper sizes that we can select, when we do so the paper width and height are assigned. If we select the user paper size, we can assign the paper width and height manually	
Vertical - Horizontal	paper orientation	
Label with Continuous Paper	When true, forces single label layout (1x1), zero gaps/margins, and label size equals paper size. This occurs when the label size matches the paper size; it is the standard configuration for industrial printers.	

Table2 Label settings

11.0.2 Dialog box for Flow Chart and Drawings

Labelling
Flow Chart
CAD drawing

Drawing properties

Dimensions

Drawing name
Floor Plan

Drawing scale
100 *Drawing Area: 21,00 m x 29,70 m*

Paper size
Width 210,00 mm **Height** 297,00 mm
 A4

Title
Floor Plan

Author
Sarah K. Wilson

Date
24-05-2024

Project
Greenfield Development

Promoter
Evergreen Real Estate

Note
☒ **Vertical** ☐ **Horizontal**
 This plan is subject to approval by local authorities. Ensure compliance with all safety regulations.

Ok Cancel

Fig.3 Drawing settings

property	description	units
Label size: Width	label width	drawing units
Label size: Height	label height	drawing units
Label separation: horizontal	horizontal separation between labels	drawing units
Label separation: vertical	vertical separation between labels	drawing units
Label margin: left	gap between the labels in the first column of labels and the left margin of the paper	drawing units
Label margin: top	gap between the labels in the first row of labels and the top margin of the paper	drawing units
Label disposition: Rows	number of rows of labels on the printing paper, on continuous paper it will be 1	
Label disposition: Columns	number of columns of labels on the printing paper, on continuous paper it will be 1	
Paper size: Width	paper width, when we select a paper from the list, the width is assigned here	milimeters
Paper size: Height	label height, when we select a paper from the list, the width is assigned here	milimeters

Paper list

list of different paper sizes that we can select, when we do so the paper width and height are assigned. If we select the user paper size, we can assign the paper width and height manually

Table3 Drawing settings

12.Drawing operations

12.0.1 Select objects

You can select objects in the editor by clicking on them with the mouse. When selecting shapes like circles, rectangles, etc., the selection only works on the border if Fill = false. Holding down the *Shift* key allows you to add more elements to the selection, or remove them by clicking on them again. If you click and drag a selection area with the mouse, all elements completely within the area will be selected. If you drag in an inverted rectangle shape, the selection will include all elements partially inside the area.

12.0.2 Move objects

With the left mouse button pressed, you can move the selected objects by dragging the mouse. You can also move them using the arrow keys; the horizontal and vertical increments will be as specified in the editor settings.

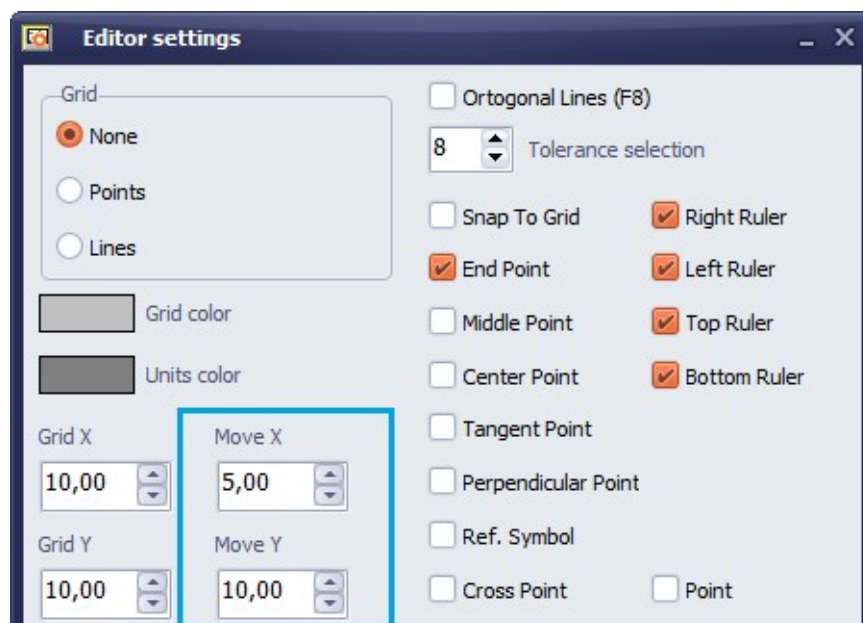


Fig.4 Horizontal and vertical movement of objects

12.0.3 Delete objects

Press the delete key to remove the selected objects

12.0.4 Equidistance

We select the objects to which we want to draw an equal, equidistant one. After selecting with the right button, we proceed to define the separation distance, with the mouse or by keyboard, entering the value (enter to finish), then we indicate the side towards which we draw the equidistant object.

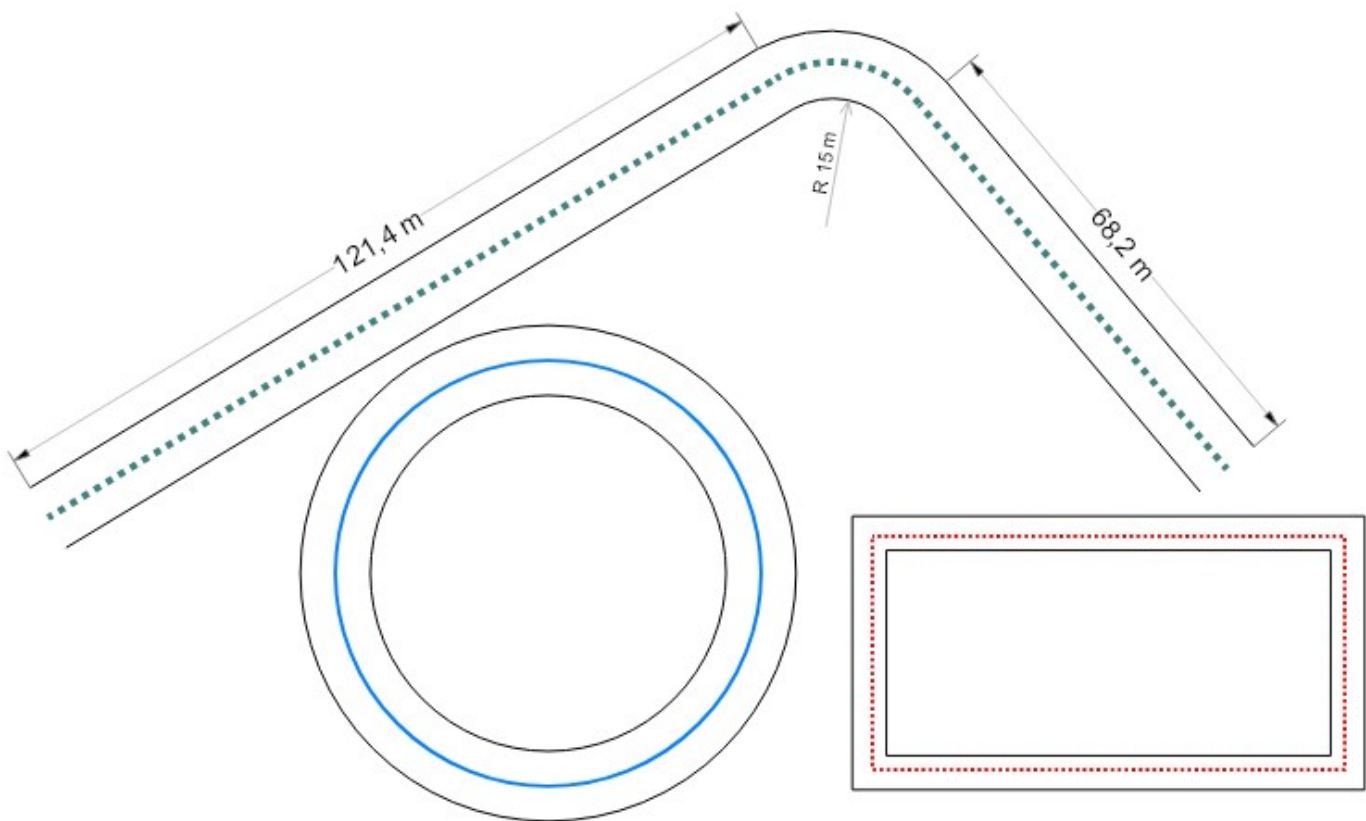


Fig.5 Equidist action

12.0.5 Extend

Extends to a series of reference objects (lines, rectangles, circles, ellipses, arcs, polylines, polygons), elements such as arrows, lines, polyline endpoints or arcs. First, select the reference object, then right-click, and finally select the object to extend.

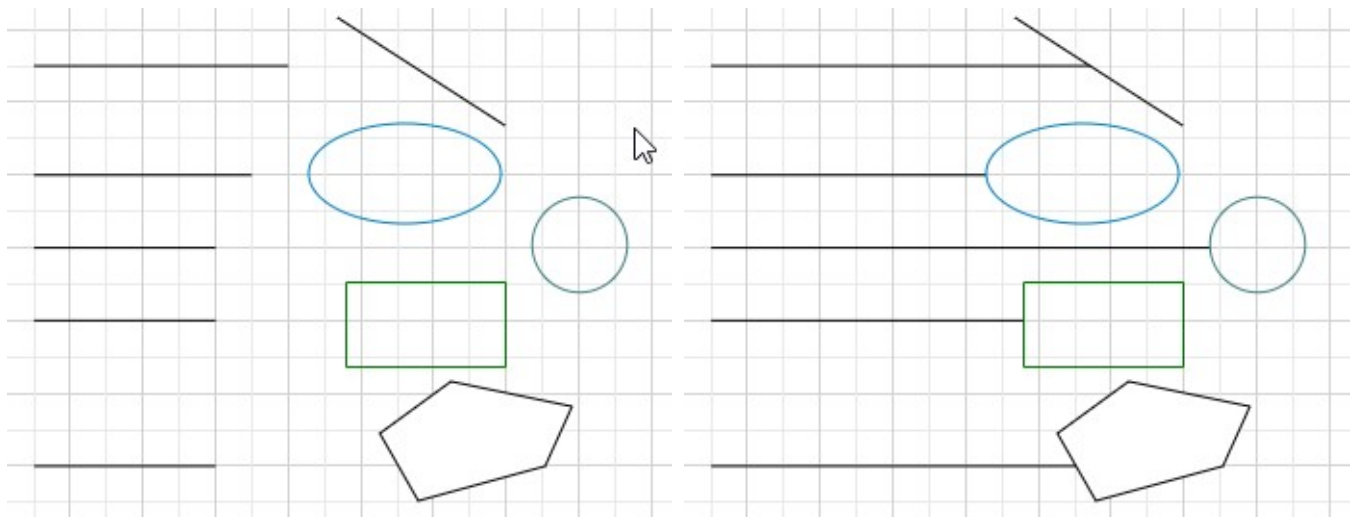


Table4 Extend operation

12.0.6 Trim

Clip to selected reference objects (lines, rectangles, circles, ellipses, arcs, polylines, polygons), elements such as arrows, lines, polyline endpoints, or arcs. First, select the reference object, then right-click, and finally select the object to trim.

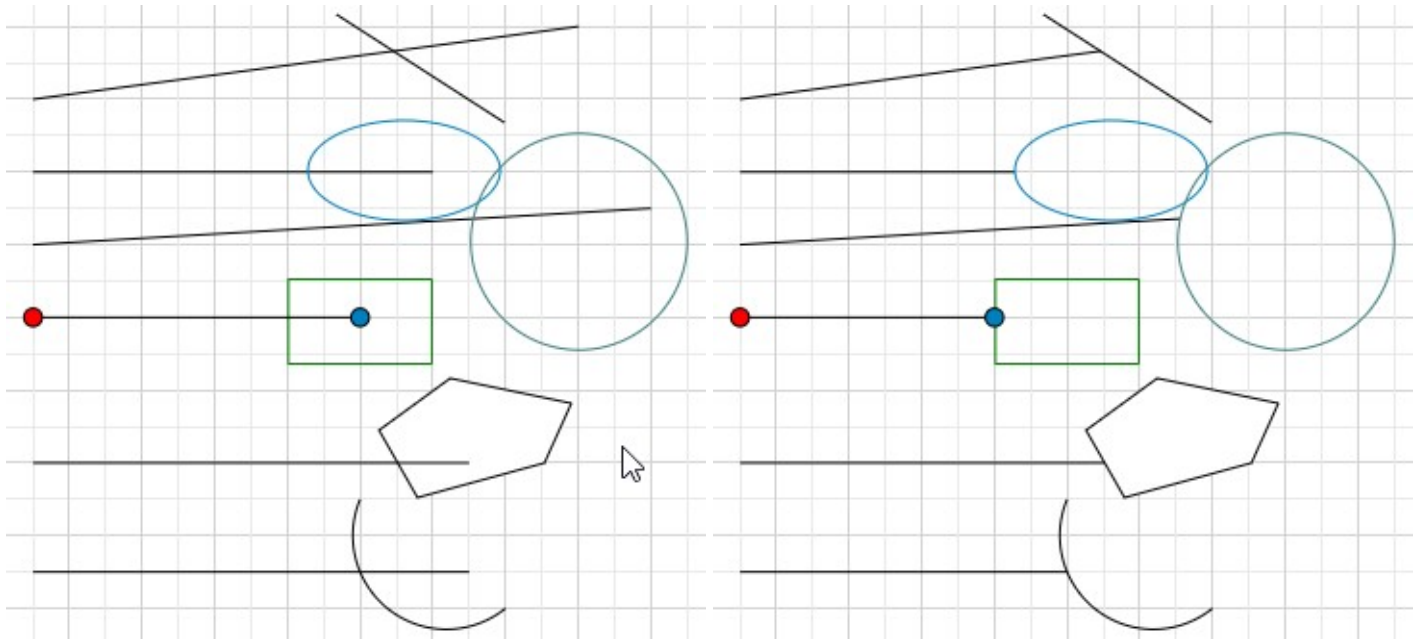


Table5 Trim operation

12.0.7 Join

Extends two selected lines or arrows to their intersection

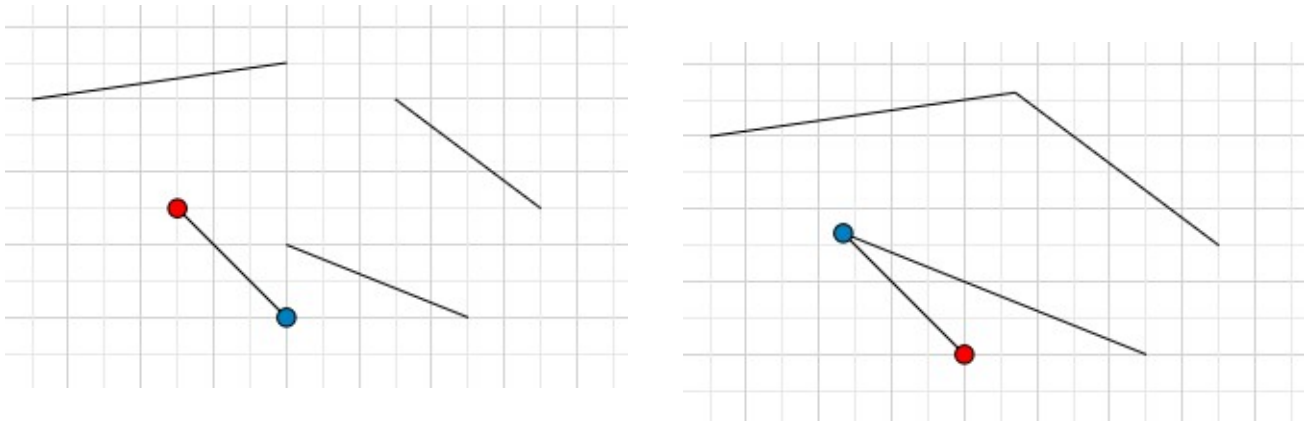


Table6 Join operation

13.Link data

One of the options for linking label elements to data is through TDataSet descendants that we have included in the program. These can be linked to a multitude of databases such as SQL Server, Interbase, Firebird, MySQL, SQLite, etc. We can also link to detail tables that we use in the table label element. We select the **Data Source** from the Data tab in the label properties box. If you want to link data to the tag, in addition to selecting the Data Source, you must check the Link Data box.

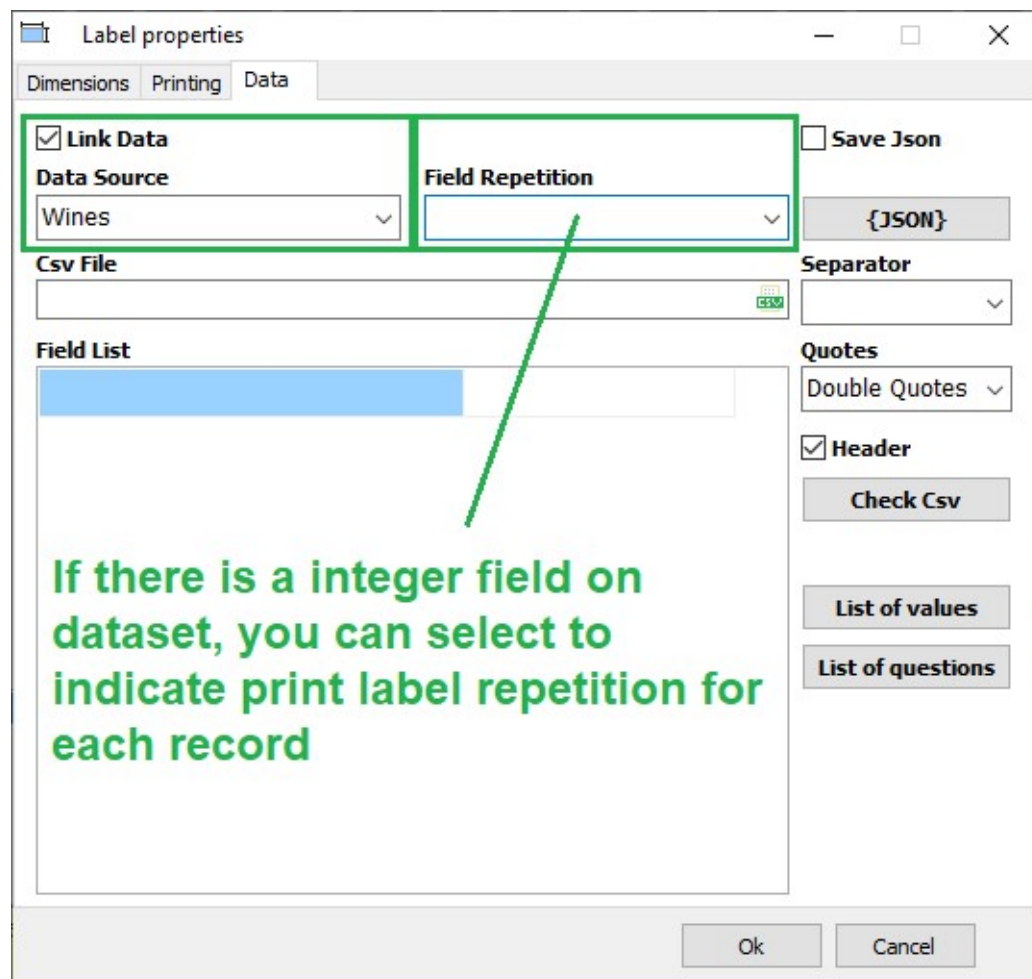


Fig.6 Link to dataset

We will assign the **Field** to the elements (level, text, paragraph, image, barcode, richtext) that we want to link to the data, and optionally, for numeric values or dates, we can specify a **Format**.

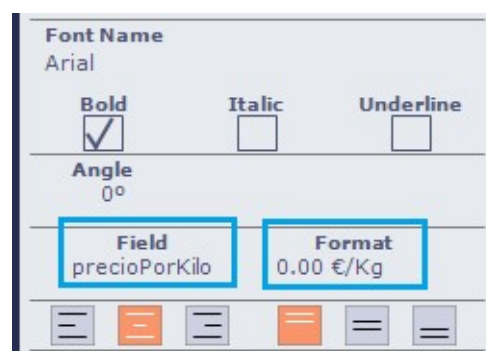


Fig.7 Assign field and format properties

When we use a detail table, we select it in the **Data** property of the Table element of the label

Identifier Table002		
Layer Default		
X1 119,59 mm	Y1 34,33 mm	
X2 229,39 mm	Y2 97,57 mm	
Pen Width 0,10 mm	Color 	
Fill Color 	Alpha 255	Fill ☒
Width 109,80 mm	Height 63,24 mm	
Padding Horz. 0,00 mm	Padding Vert. 0,00 mm	
Data nutrientes	...	
Grid Both	Fixed Size ☐	
Grid Width 0,10 mm	Grid Color 	

Fig.8 Table properties

variedad	categoría	cajas	confección
Melocotón	I	40	Caja de cartón 5 Kg Alveolo 48
Nectarina	II	30	Bandeja plástica 2kg
		70	

variedad	categoría	cajas	confección
Albaricoque	Extra	25	Caja de madera 8 kg granel
Ciruela	I	35	Caja de cartón 8 kg alveolo 32
Paraguay	II	20	Bandeja plástica film 800 gr
		80	

Fig.9 Table element

13.1.Link to json

To load a json we will go to the Data tab of the label properties. The link to json is made by selecting in the label as a data source an Array contained in the json object. This array will contain a list of objects with the fields that we can assign as properties of the elements (**Field** property). We can check if we want to save the json data source along with the label file (if we are going to share the file it is better to do it this way, since we will not have to attach

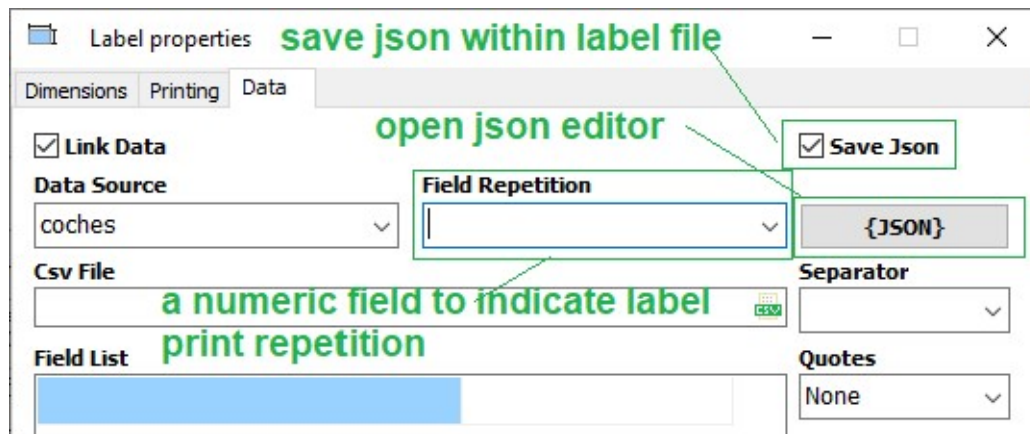
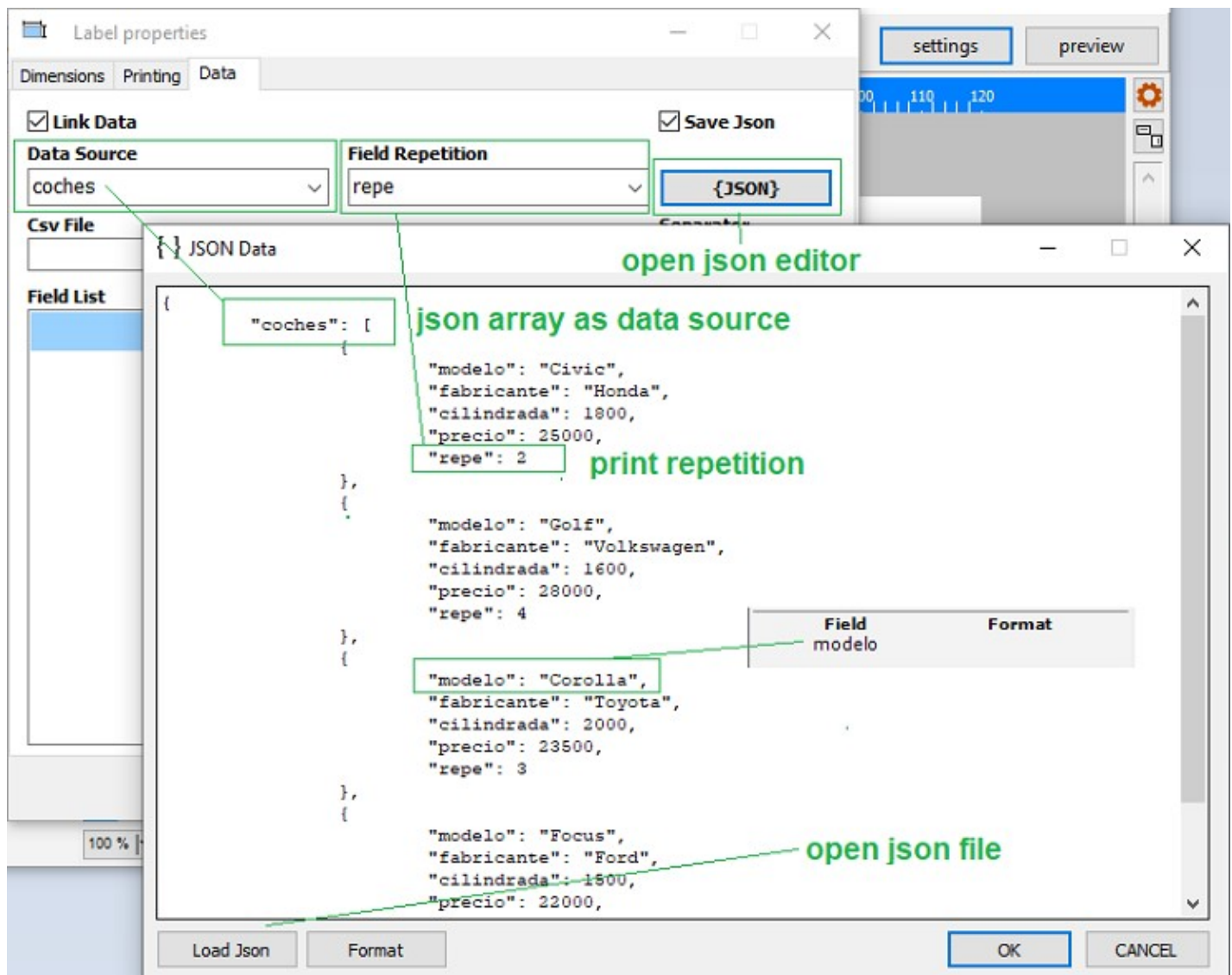


Fig.10 Load json file

When we select any data source (dataset descendant, json or cvs), we can indicate an integer field that is used to indicate the number of labels to print (Field Repetition).

**Fig.11** Link json data

13.2.Link to csv

EmbedDraw allows you to link label elements with records from a csv file. To do this, from the Data tab of the label properties, select the csv file from which the data originates, indicate whether it has a first line with field headers (check **Header** is recommended), indicate whether the texts are delimited by quotes, double quotes or not, indicate the character that separates the records in each row, finally press the check csv button to read the fields. You can then modify the default field types by selecting from the list. If there is a numeric integer field that indicates the number of labels to print for each record, mark the field as integer and then select **Field Repetition** from the list above.

Label properties

Dimensions Printing Data

☒ Link Data 7 ☐ Save Json

Data Source 6 CsvFile Field Repetition {JSON}

Csv File 1 C:\Components\Plabel\STD\3.0\Demos\Data\productos.csv

Separator 2 Semicolon

Quotes 3 Double Quotes

☒ Header 4

5 Check Csv

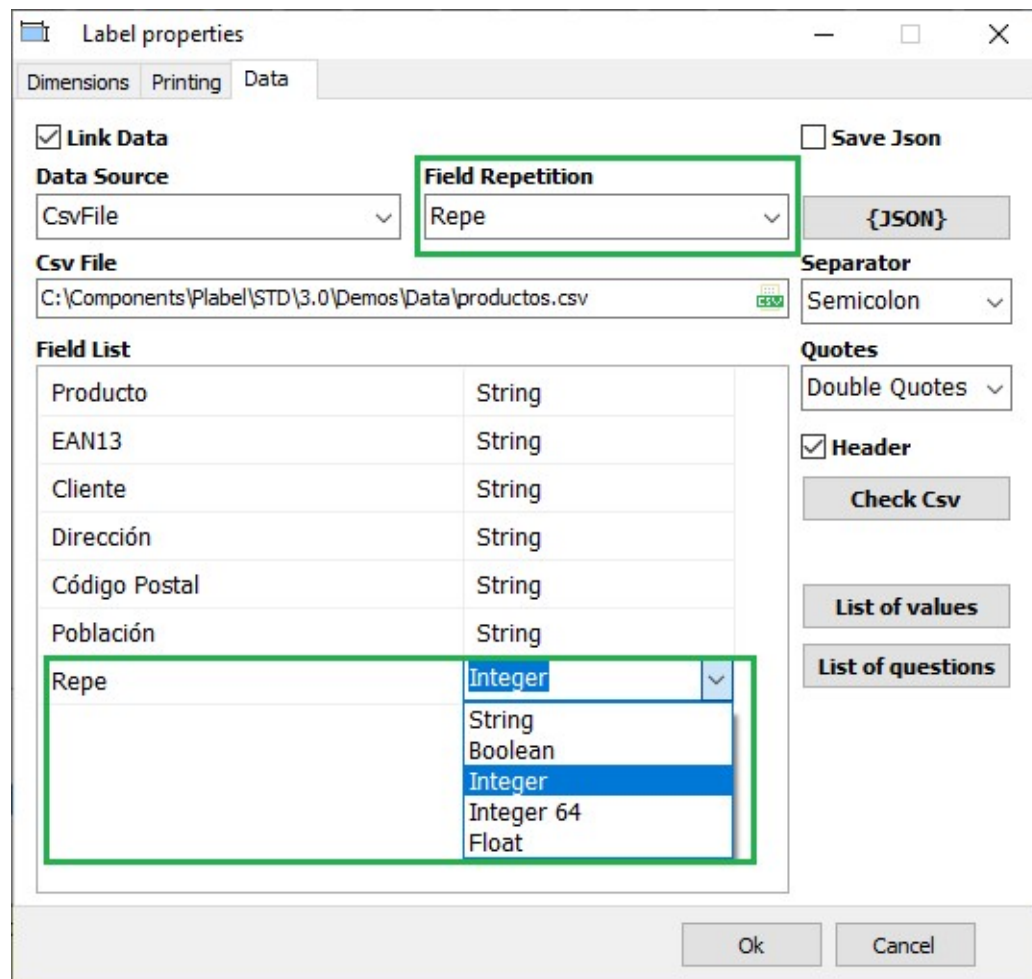
List of values

List of questions

Field List	
Producto	String
EAN13	String
Cliente	String
Dirección	String
Código Postal	String
Población	String

Ok Cancel

Fig.12 Link to a csv file

**Fig.13** Csv repetition field

14.Layers

A new feature of **EmbedDraw** VCL version 3.0 is the possibility of defining one or more drawing layers where elements are placed. By default there is always one layer defined that cannot be deleted or moved. Elements inserted into the drawing are added to the active layer from which they take their properties (color, background color, text font, text height, line thickness, and properties to indicate whether it is active, whether it is printed, whether it is visible, whether it is selectable, and whether we include the elements of that layer in the export (these properties are changed by double-clicking on the editor). The layer of an element can be modified from the properties inspector.

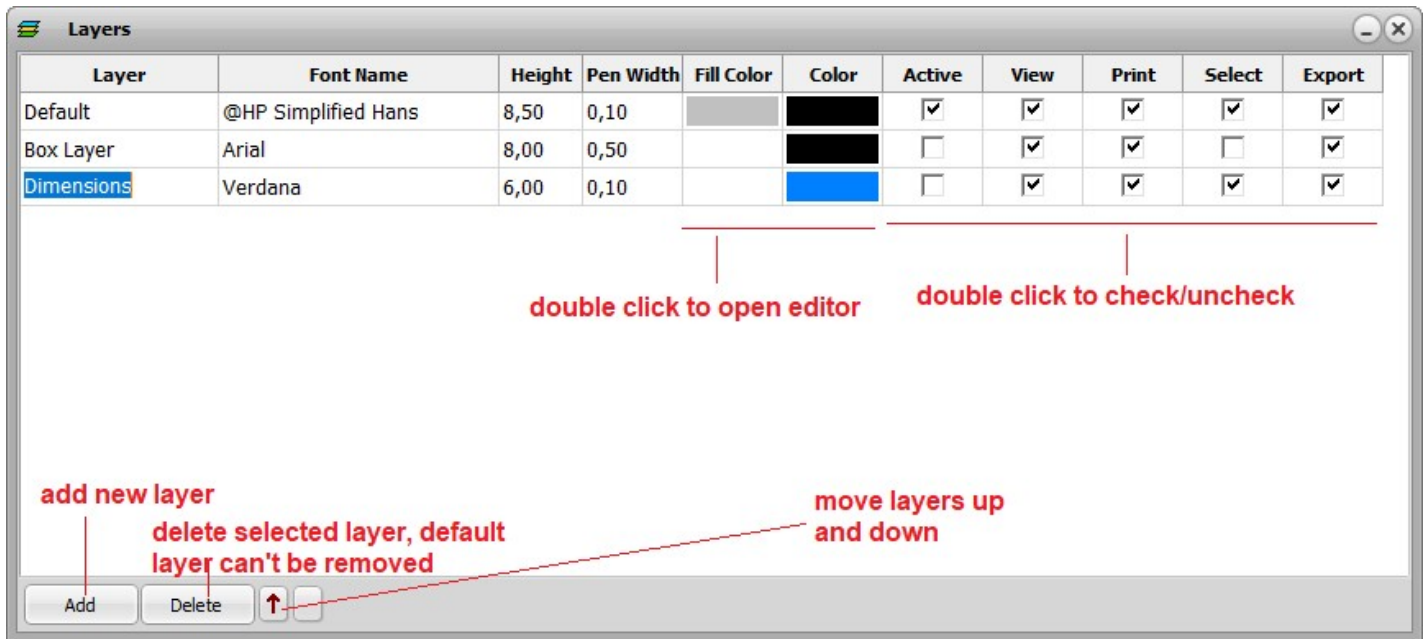


Fig.14 Layers

Once an element has been added, we can modify its properties so that they no longer coincide with those of the layer to which it belongs. If we want to assign the values of the layer to the elements that have it assigned, from the layer editor, we position ourselves on the layer and right-click to open popumenu and press "apply values to elements of this layer".

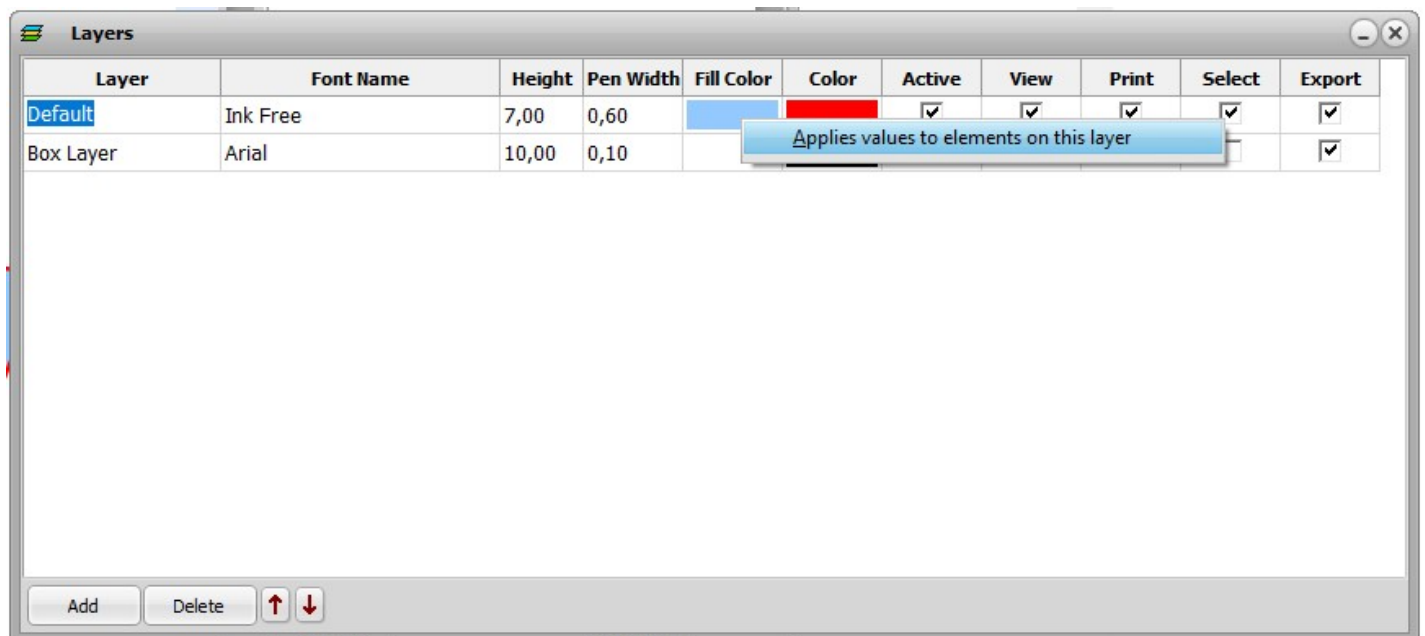


Fig.15 Applies values from layer

In version 3.1, you can add an image, either from a file or a map service, as the layer's background. You can also set the image's margins relative to the page edges. To request the map, select the service, the zoom level, and the latitude and longitude coordinates of the map's center, indicating whether you want to display a marker indicating the map's center. The coordinates can be obtained by searching a service using place names (included in the editor itself).

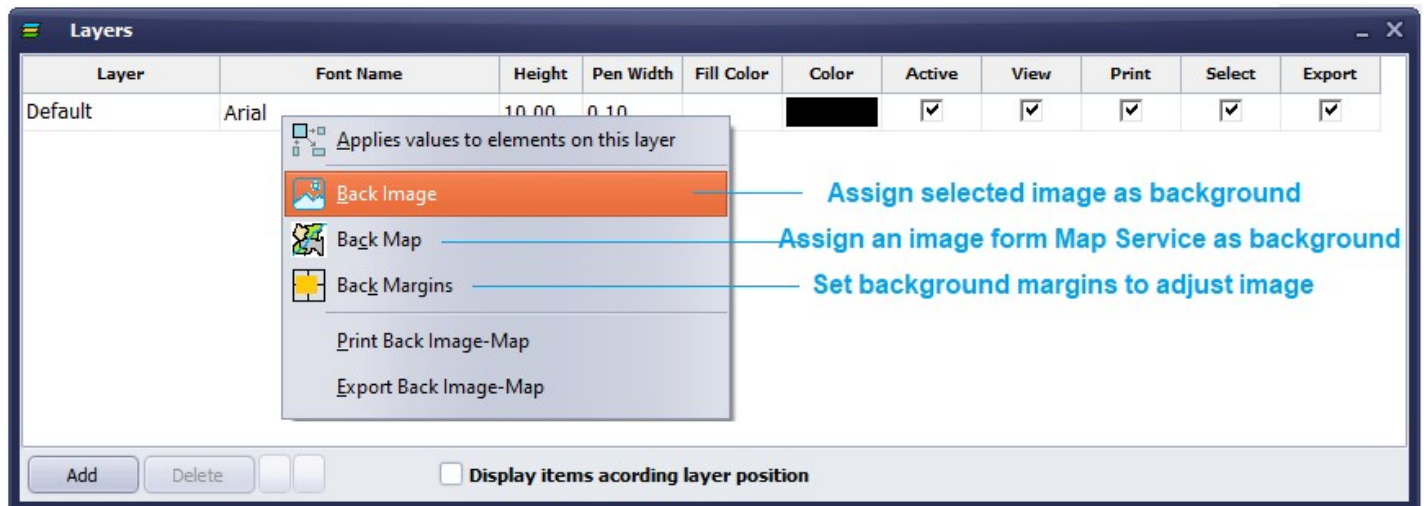


Fig.16 Select background image or map

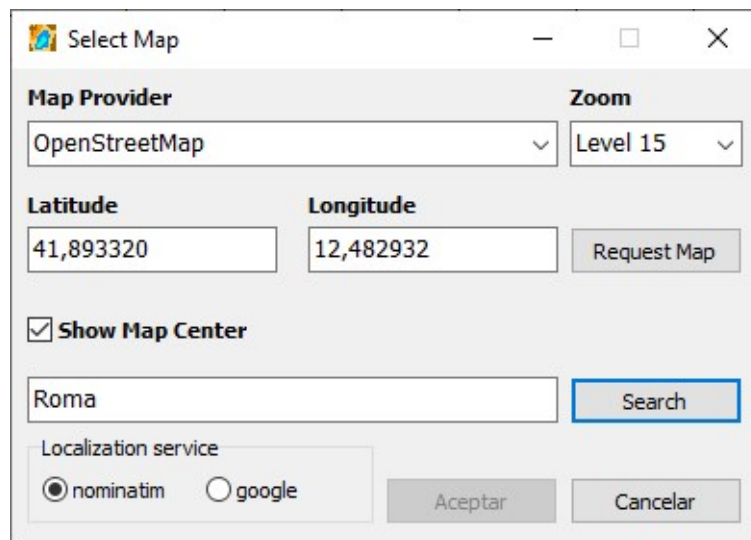


Fig.17 Request image from Map Service

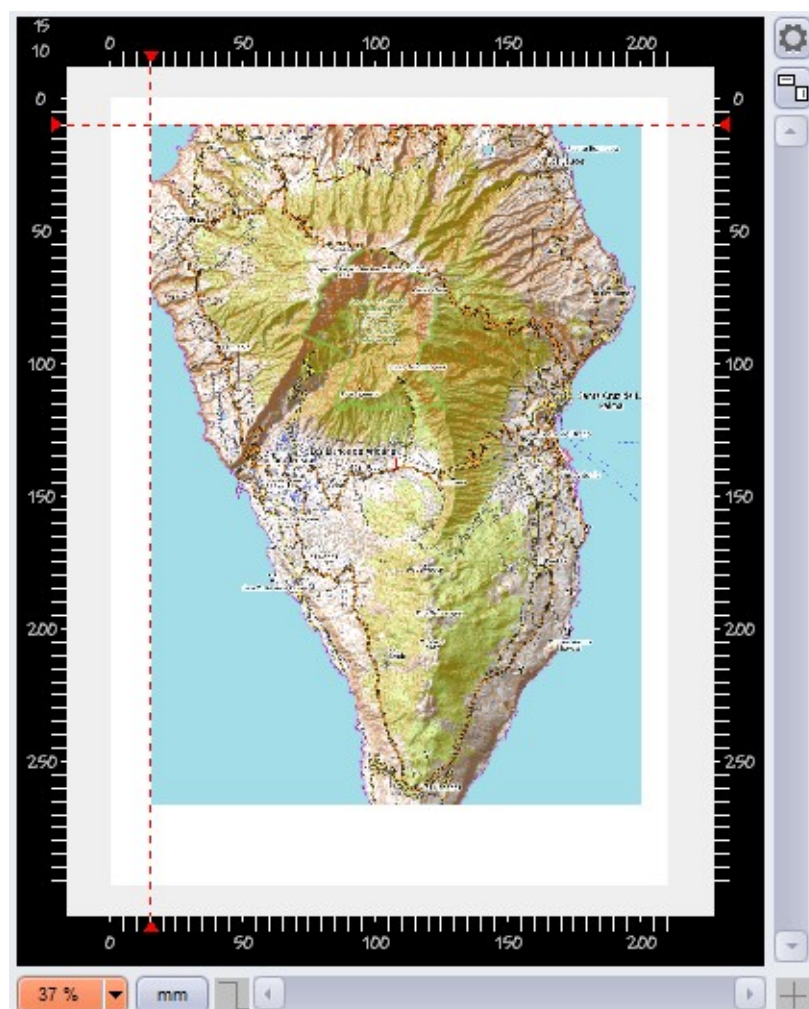


Fig.18 Background image with page margins requested from online service

15. Preview, print and export

We can print the editor's content directly with the selected printer, or we can preview its content before printing. In the preview screen there are options to view all the editor's content adjusted to the page, or adjusted to the page width. There are options to export in various graphic formats: in the case of jpeg images we can assign the quality of it, and for png files we can indicate that the background should be transparent. We can also mark whether we want the file dimensions to be adjusted to the positions of the drawn elements (FIT check).

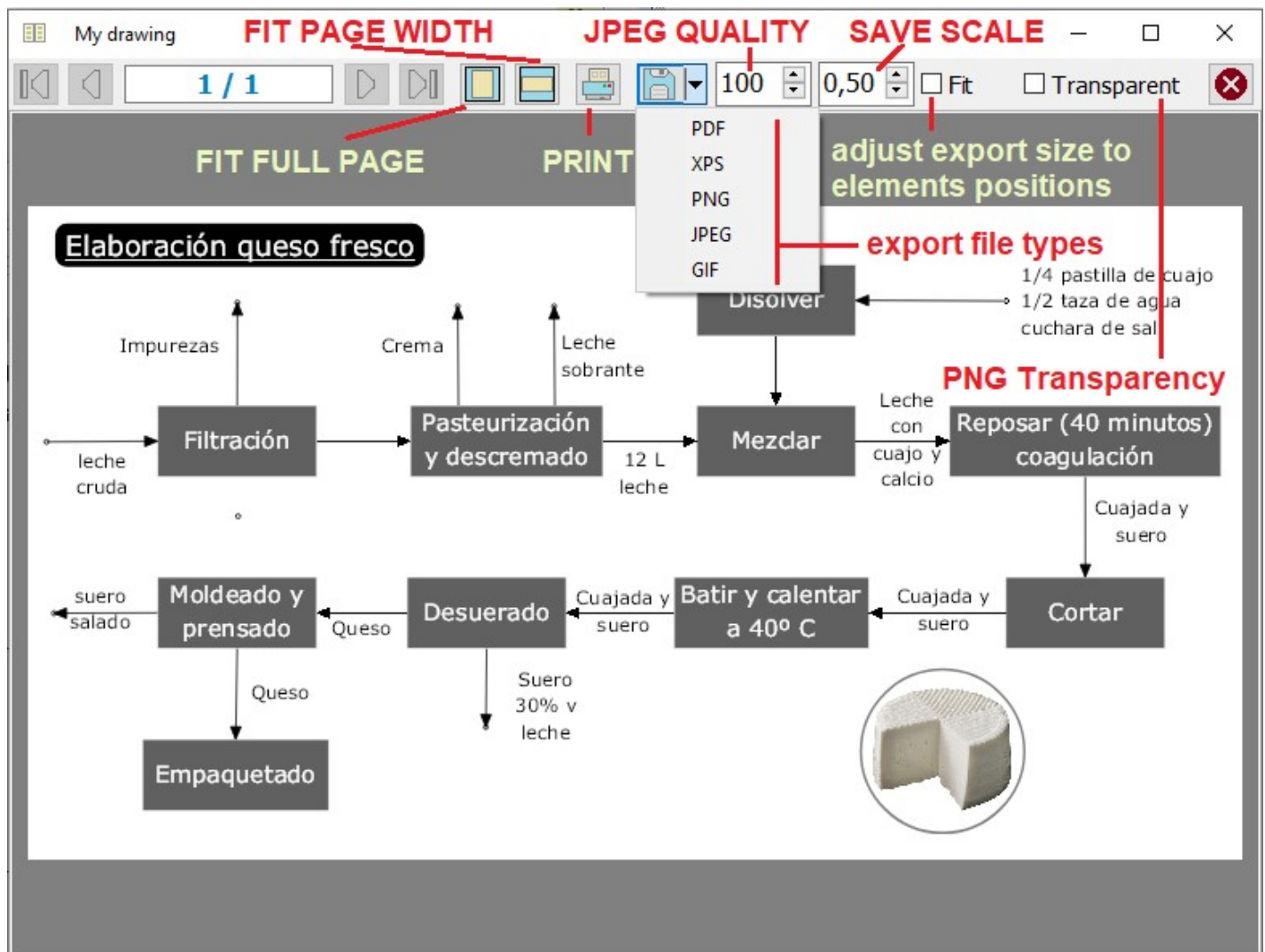


Fig.19 Preview, print and export

16. Drawing elements

Font Support in Skia:

- Skia is primarily designed to work with TrueType (TTF) and OpenType (OTF) fonts. These formats contain vector information that Skia can interpret to render text in a scalable and anti-aliased manner.
- Raster fonts, such as the original Windows Courier font, do not contain vector information. Instead, they have a bitmap for each predefined font size. Skia cannot render these fonts correctly because it does not have the necessary vector information.

When you insert elements in the editor, you use mouse clicks to position points (you can use different snaps to help). Another way to indicate these points is by keyboard, specifying *absolute coordinates* (separated x and y by a comma), or *relative coordinates* (relative to the last inserted point) with the @ symbol in front.

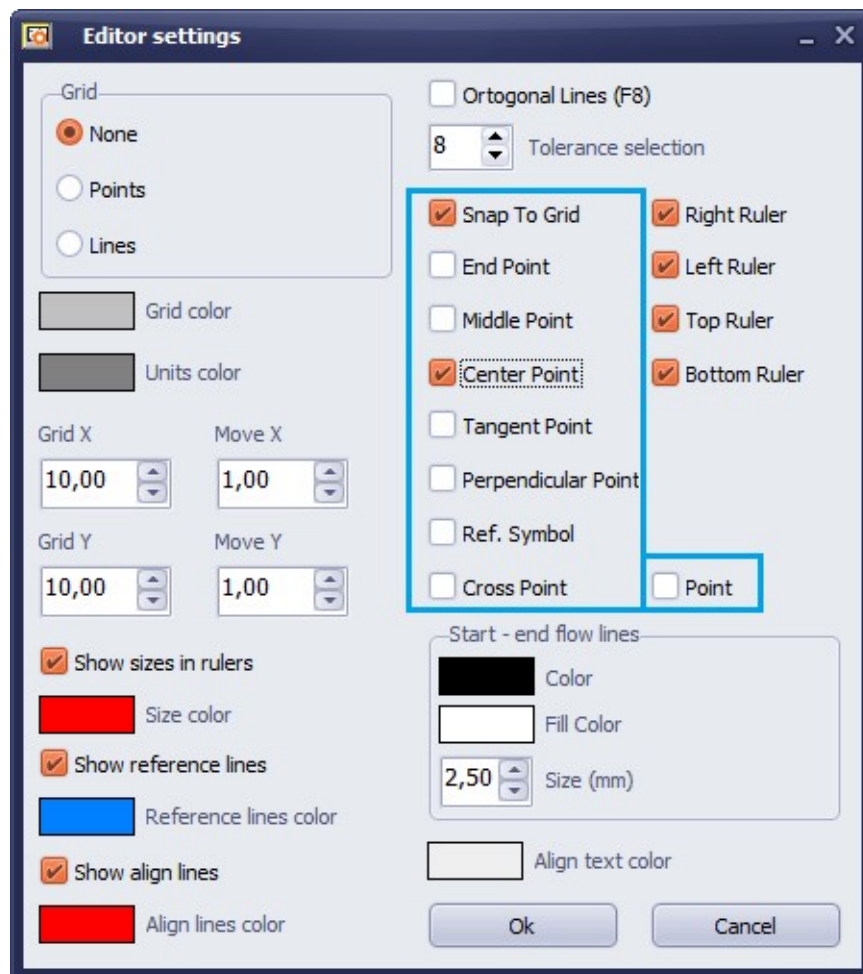


Fig.20 Input absolute coordinates with keyboard



Fig.21 Input relative coordinates with keyboard

To help position the points of the shapes, you can set different Snap options in the editor properties, allowing them to snap to the grid or to other reference points of the other entities. Another helpful feature when drawing is to activate (F8) the drawing of vertical or horizontal lines.

**Fig.22** Snap options

16.1.Line

Labelling

Flow Chart

CAD drawing

To draw a line, we indicate the start and end points of the line with the mouse on the editor (or with the keyboard writing the coordinates). We can move a line by selecting it and changing its position with the mouse pressed. If we click on the start and end points, we can move them by holding the mouse down on them.

Identifier		
Line		
Layer		
Default		
X1	Y1	
81,23 mm	143,40 mm	
X2	Y2	
188,38 mm	53,18 mm	
Pen Width	Color	Line Type
0,10 mm		

Fig.23 Lines properties

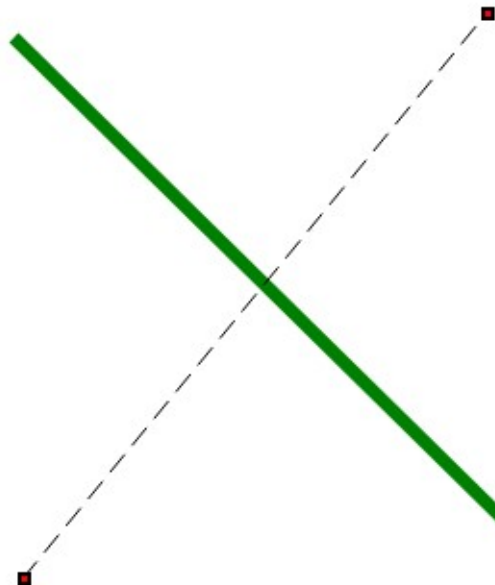


Fig.24 Draw line

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the first point of the line	drawing units
x2,y2	x and y coordinates of second point of the line	drawing units
Pen Width	Line thickness in millimeters	always millimeters
Color	Line color	
Line Type	line stroke style used, we select from a list of predefined styles	

Table9 Line properties

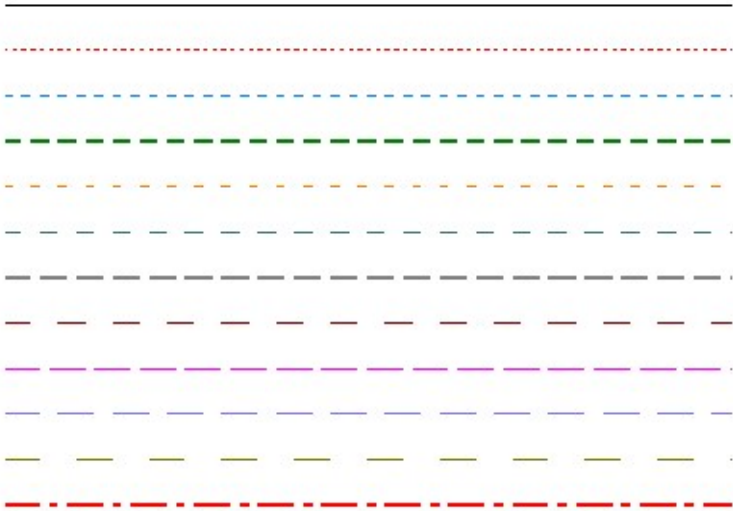


Fig.25 Line types

16.2.Polyline

Labelling

Flow Chart

CAD drawing

To draw a polyline, click on each point in the editor and finish with right-click. You can move a polyline by selecting it and changing its position with the mouse. If you click on the points, you can move them by clicking on them or changing their coordinates from the property inspector. With the polyline selected in the editor, if we right-click on the lines, we add new points to it. When we select a point, we can modify its coordinates, or we can delete it by pressing the DELETE key.

X 162,19 mm		Y 92,07 mm	
Identifier PolyLine001			
Layer Default			
Pen Width 0,10 mm	Color 	Line Type - - - -	
Source 		Destination 	
From Color 		To Color 	
Size From (mm) 2,00 mm		Size To (mm) 4,00 mm	
X 95,78 mm		Y 137,89 mm	

Fig.26 Polyline properties

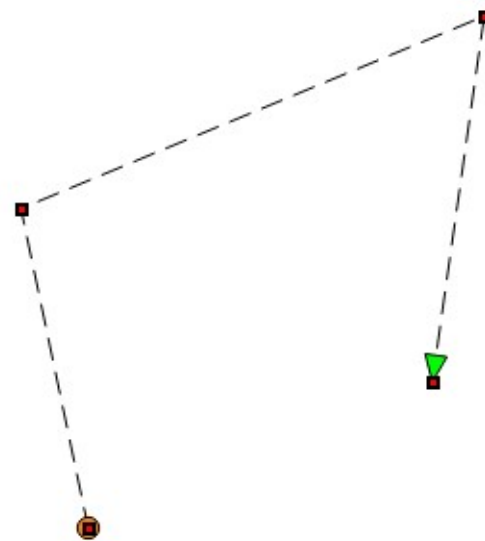


Fig.27 Draw Polyline

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Thickness of the Polyline in millimeters	always millimeters
Color	Polyline color	
Line Type	Polyline stroke style used, we select from a list of predefined styles	
Source	We can indicate a figure to draw at the start point of the polyline.	
Destination	We can indicate a figure to draw at the end point of the polyline.	
From Color	Color used to fill the figure assigned at first point	
To Color	Color used to fill the figure assigned at end point	
Size From	Size in millimeters of the figure designated in the first point	always millimeters
Size To	Size in millimeters of the figure designated in the end point	always millimeters

x	x coordinates of the selected point	drawing units
y	y coordinates of the selected point	drawing units

Table12 Polyline properties

In the new version 3.1 you can extend or trim the lines that cut the segments of the polyline, as well as extend and trim the initial and final segments of the polyline.

16.3.Arrow Line

Labelling

Flow Chart

CAD drawing

This element represents a line, where we can also indicate the initial and final endings (various types), its size, and we can add a text that can be the measurement of the line taking into account the units and scale of the drawing.

Identifier ArrowLine003		
Layer Default		
X1 37,83 mm	Y1 163,51 mm	
X2 145,79 mm	Y2 128,06 mm	
Pen Width 0,10 mm	Color 	Line Type _____
Font Height 3,50 mm	Color 	
Font Name Arial		
Bold ☐	Italic ☐	Underline ☐
Source 	Destination 	
From Color 	To Color 	
Size From (mm) 2,50 mm	Size To (mm) 2,50 mm	
Text Position Above	Text Measure ☒	
Text		
Field	Format	

Fig.28 ArrowLine properties

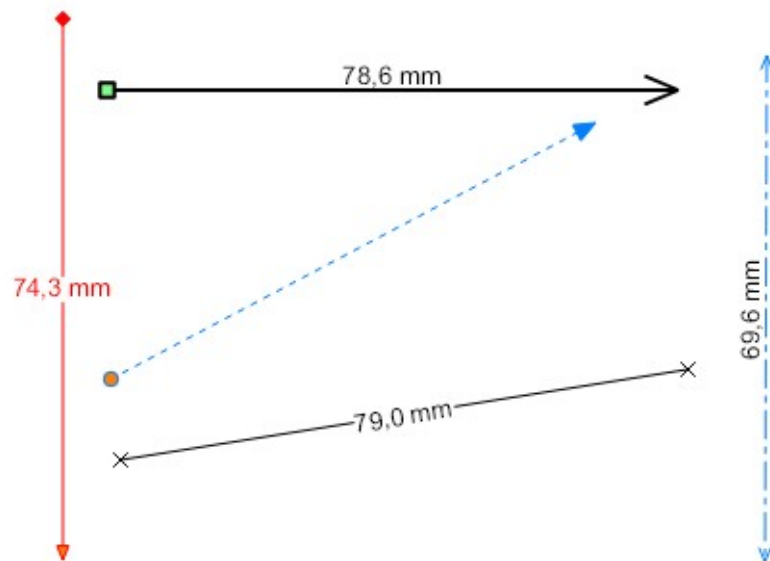
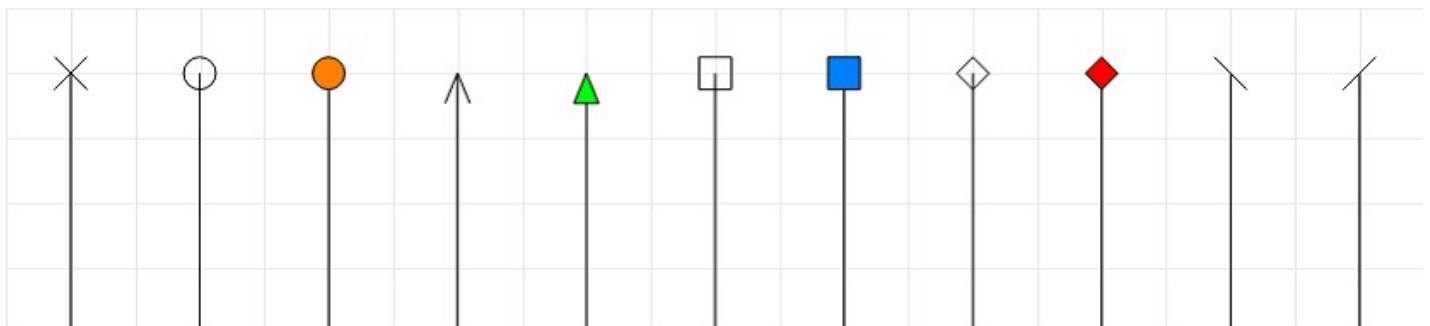


Fig.29 Draw Arrowline

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the first point of the line	drawing units
x2,y2	x and y coordinates of second point of the line	drawing units
Pen Width	Line thickness in millimeters	always millimeters
Color	Line color	

Line Type	line stroke style used, we select from a list of predefined styles	
Font Height	Text font height	always millimeters
Color	Font color used to draw the text	
Font Name	We select the font type of the text from the list	
Bold	Check the property if you want the text in bold	
Italic	Check the property if you want the text in italic	
Underline	Check the property if you want to display an underline below the text	
Source	We can indicate a figure to draw at the start point of the line. (Circle, square, arrow, etc)	
Destination	We can indicate a figure to draw at the end point of the line. (Circle, square, arrow, etc)	
From Color	Color used to fill the figure assigned at first point	
To Color	Color used to fill the figure assigned at end point	
Size From	Size in millimeters of the figure designated in the first point	always millimeters
Size To	Size in millimeters of the figure designated in the end point	always millimeters
Text position	If we set the check to write the line measurement or if we want to put a fixed text, with this property we establish the position of the text: above or below the line, in the middle, in the middle removing the part of the line that coincides with the text, horizontal position or vertical position.	
Text measure	Check the property if you want represent as text property the line measurement	Drawing and scale measurement units
Text	If the textmeasure check is not checked, the element will display this text	
Field	Name of the field or variable in the linked data source. Determines which data is read. The meaning of associating an ArrowLine with data is so that if the field has text, it is displayed, and if the text is empty, the line is not displayed.	
Format	Format string (FormatFloat / FormatDateTime) applied to the read value. Determines how the data is presented.	

Table15 ArrowLine properties**Fig.30** line endings

16.4.Dimension

Labelling

Flow Chart

CAD drawing

This element is used to represent distance measurements between two points. It is drawn according to the dimension style assigned to it. By default there is a dimension style, which we can modify or add new ones.

Identifier	
Dimension008	
Layer	
Default	
X1	Y1
146,84 mm	36,78 mm
X2	Y2
225,95 mm	43,66 mm
Dimension Style	
Default	
Text Measure	Text
☒	

Fig.31 Dimension properties

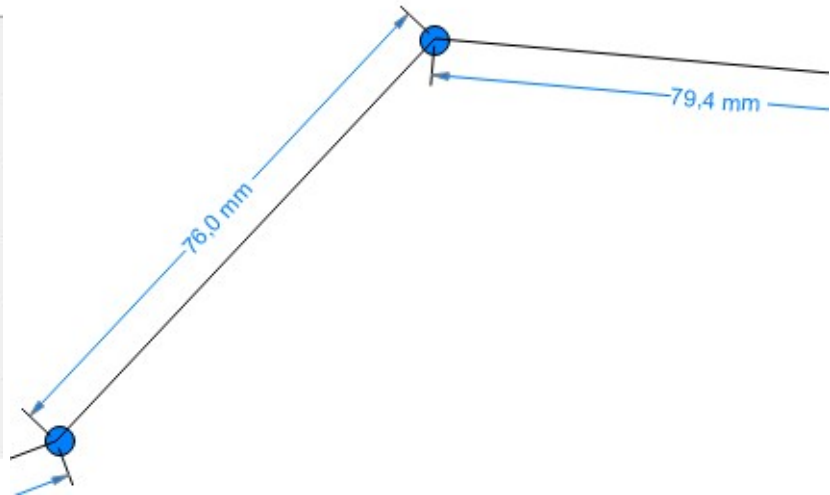


Fig.32 Draw Dimension

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the first point of the dimension line	drawing units
x2,y2	x and y coordinates of second point of the dimension line	drawing units
Dimension Style	dimensioning style that this element uses to draw itself (line type, thickness and color, type and size of endings, separation of extension lines), we can change the default style or add new ones	
Text measure	Check the property if you want represent as text property the line measurement (using dimension style settings)	Drawing and scale measurement units
Text	If the textmeasure check is not checked, the element will display this text	

Table18 Dimension properties

In the dimension style editor, we set the dimension properties, termination types, extension line lengths, etc. We can modify the default style or add new ones, we cannot delete the default style.

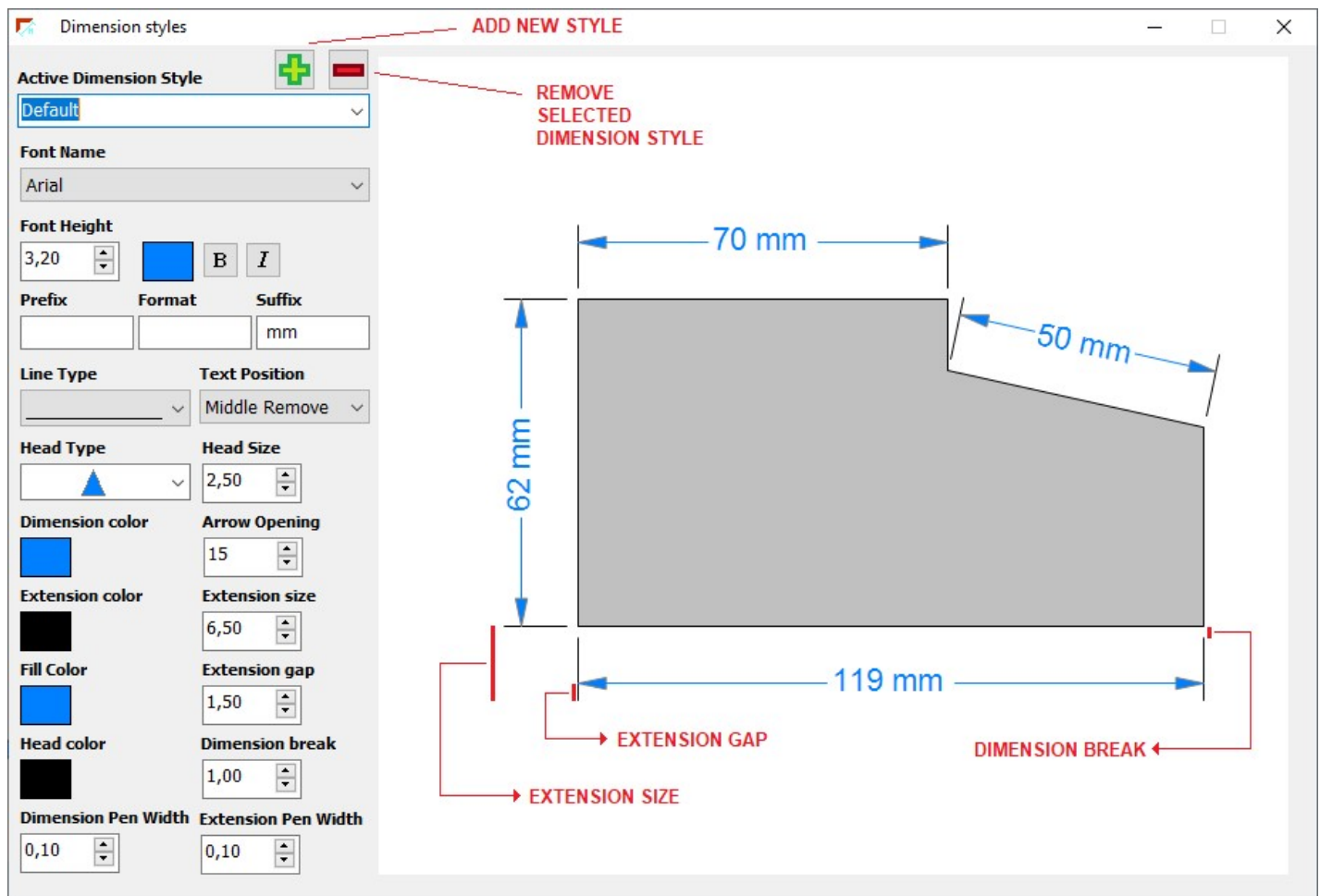


Fig.33 Dimension styles editor

Version 3.1 adds two styles for dimensioning diameters and two more for radii. Additionally, there is a new style for dimensioning the angle between two lines.

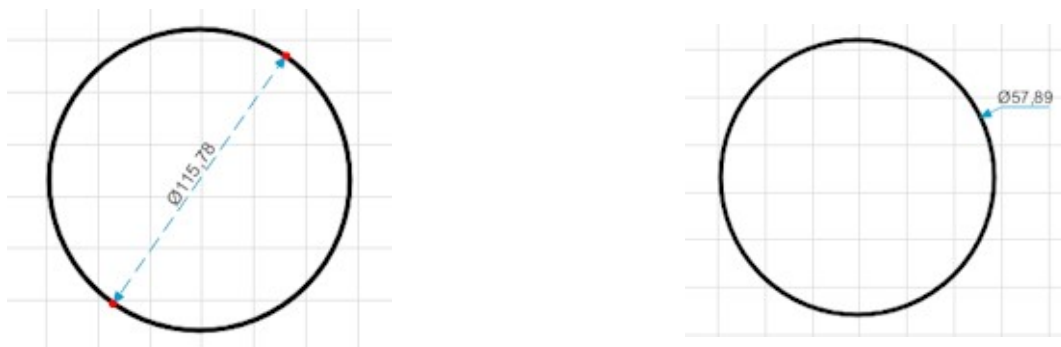


Table19 Diameter dimensioning styles. Select circle and line position.

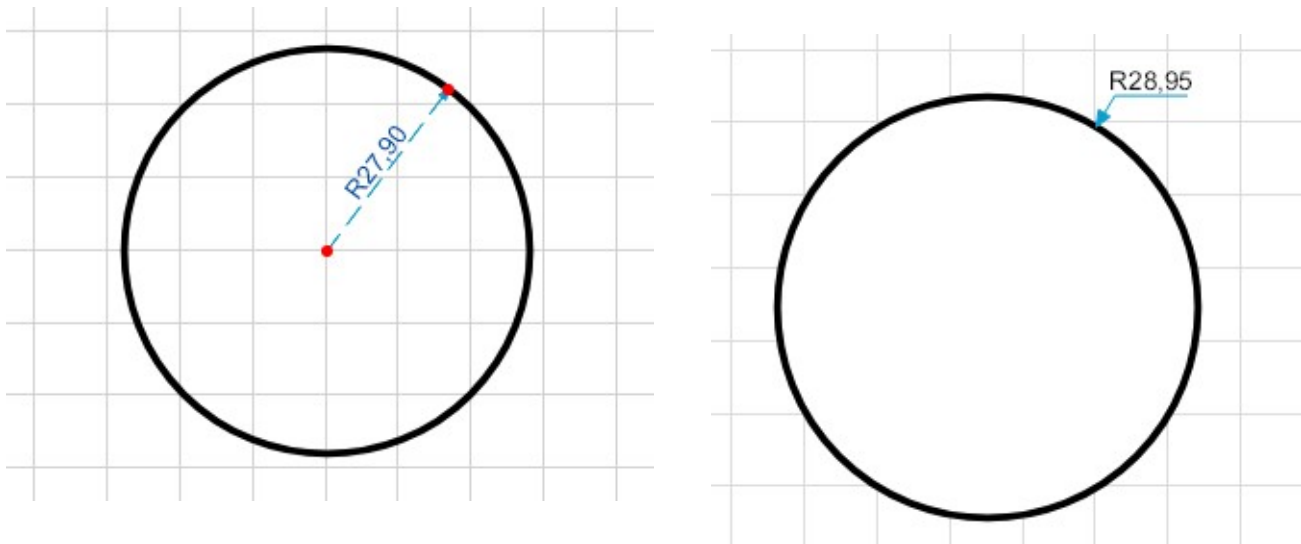


Table20 Radio dimensioning styles. Select circle and line position.

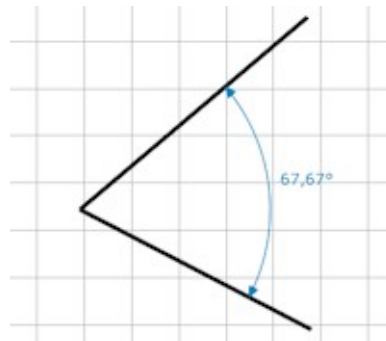


Fig.34 Angle dimensioning between two lines

16.5.Bezier

Labelling

Flow Chart

CAD drawing

Identifier		
Layer Default		
X1 96,31 mm	Y1 139,43 mm	
Pen Width 0,10 mm	Color 	Line Type 
Fill Color 	Alpha 255	Fill ☐
Source 	Destination 	
From Color 	To Color 	
Size From (mm) 3,80 mm	Size To (mm) 4,70 mm	

Fig.35 Bezier properties

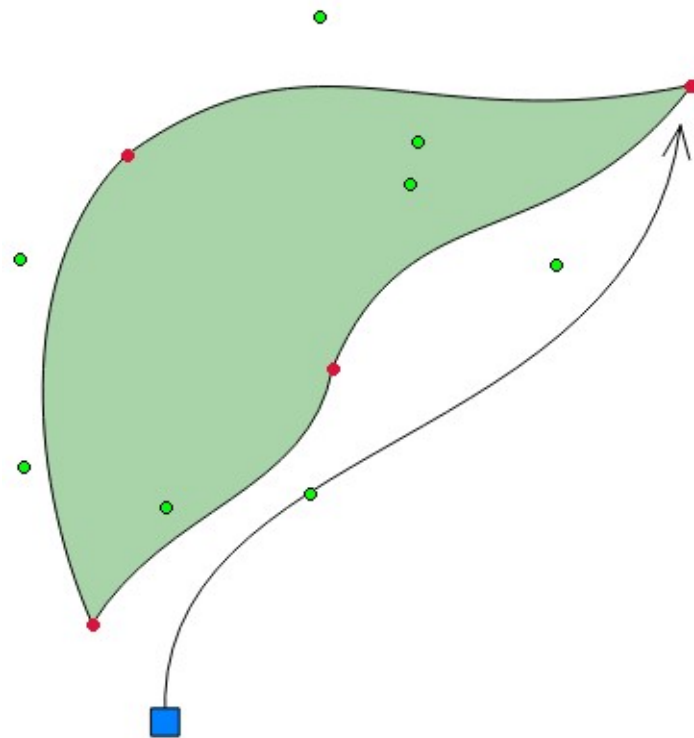


Fig.36 Draw Bezier

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Bezier line thickness in millimeters	always millimeters
Color	Bezier line color	
Line Type	line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the bezier curve when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	check this property if you want to close the Bezier and fill with Fill color	
Source	We can indicate a figure to draw at the start point of the bezier. Figures are drawn if the Fill property of the Bezier curve is unchecked (false)	
Destination	We can indicate a figure to draw at the end point of the bezier. Figures are drawn if the Fill property of the Bezier curve is unchecked (false)	
From Color	Color used to fill the figure assigned at first point	

To Color	Color used to fill the figure assigned at end point	
Size From	Size in millimeters of the figure designated in the first point	always millimeters
Size To	Size in millimeters of the figure designated in the end point	always millimeters
Table23 Bezier properties		

16.6.Circle

Labelling

Flow Chart

CAD drawing

To draw circles in the editor you can use three methods: define the center and radius, define two points through which the circle passes or define three points through which it passes.

Identifier Circle		
Layer Default		
Pen Width 0,70 mm	Color 	Line Type - - - - -
Fill Color 	Alpha 255	Fill ☒
Center X 121,97 mm	Center Y 78,85 mm	
Radio 22,45 mm		

Fig.37 Circle properties

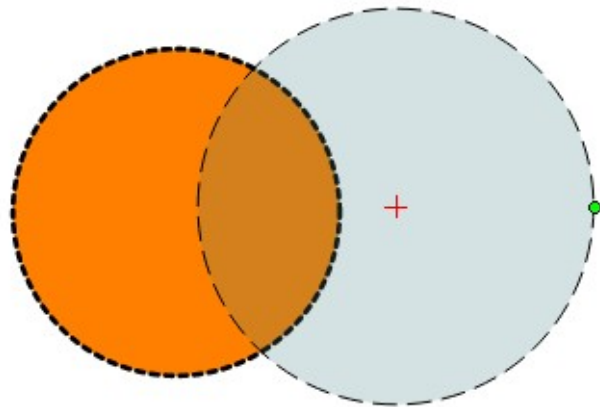


Fig.38 Draw circle

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Thickness of the edge of the circle expressed in millimeters	always millimeters
Color	Edge of the circle color	
Line Type	Edge of the circle line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the circle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the circle with Fill color	
Center X	x-coordinate of the center of the circle	Drawing units
Center Y	y-coordinate of the center of the circle	Drawing units
Radio	circle radio	Drawing units

Table26 Circle properties

In version 3.1 you can draw lines tangent to circles by enabling Snap to Tangent in editor's settings. With Snap to Center, you can draw lines to the center of the circle.

16.7.Ellipse

Labelling

Flow Chart

CAD drawing

To draw an ellipse in the editor, first place the center with the mouse, then the distance from the X axis and finally the distance from the Y axis.

Identifier Ellipse002		
Layer Default		
Pen Width 0,10 mm	Color 	Line Type 
Fill Color 	Alpha 092	Fill ☒
Center X 186,00 mm	Center Y 72,64 mm	
Radio X 38,63 mm	Radio Y 11,91 mm	

Fig.39 Ellipse properties

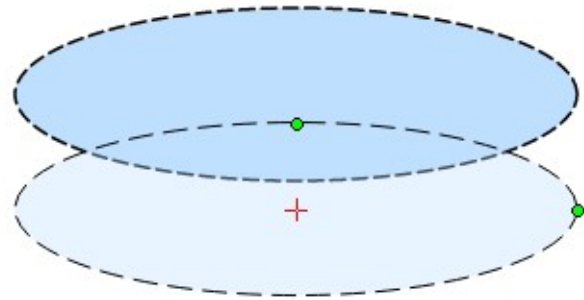


Fig.40 Draw ellipse

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Thickness of the edge of the ellipse expressed in millimeters	always millimeters
Color	Edge of the ellipse color	
Line Type	Edge of the ellipse line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the ellipse when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the ellipse with Fill color	
Center X	x-coordinate of the center of the ellipse	Drawing units
Center Y	y-coordinate of the center of the ellipse	Drawing units
Radio X	ellipse radio in X axis	Drawing units
Radio Y	ellipse radio in Y axis	Drawing units

Table29 ellipse properties

In version 3.1 you can draw lines tangent to ellipses by enabling Snap to Tangent in editor's settings. With Snap to Center, you can draw lines to the center of the ellipse.

16.8.Arc

Labelling

Flow Chart

CAD drawing

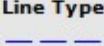
Identifier Arc		
Layer Default		
Pen Width 0,10 mm	Color 	Line Type 
Source 		Destination 
From Color 	To Color 	
Size From (mm) 4,00 mm	Size To (mm) 4,00 mm	

Fig.41 Arc properties

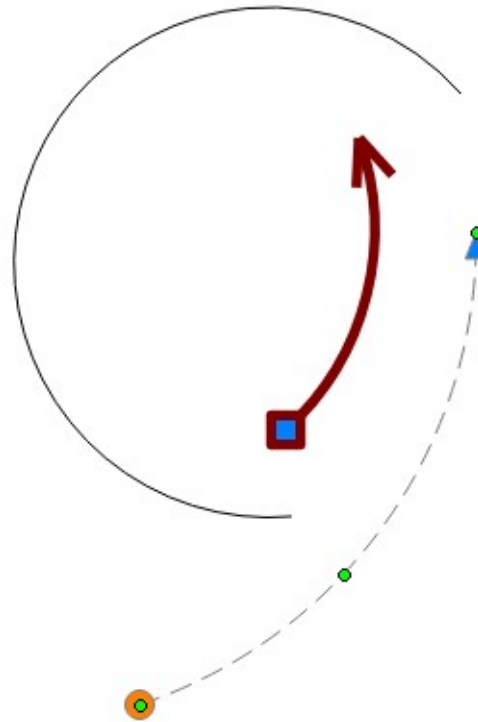


Fig.42 Draw Arc

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Arc line thickness in millimeters	always millimeters
Color	Arc line color	
Line Type	line stroke style used, we select from a list of predefined styles	
Source	We can indicate a figure to draw at the start point of the arc.	
Destination	We can indicate a figure to draw at the end point of the arc.	
From Color	Color used to fill the figure assigned at first point	
To Color	Color used to fill the figure assigned at end point	
Size From	Size in millimeters of the figure designated in the first point	always millimeters
Size To	Size in millimeters of the figure designated in the end point	always millimeters

Table30 Arc properties

In version 3.1 you can draw an equidistant inside or outside arc with the Equidist tool, you can also extend and trim arcs, taking other shapes as a reference, and you can draw lines tangent to arcs by activating Snap to Tangent in editor's settings.

16.9.Sector

Labelling

Flow Chart

CAD drawing

Identifier Sector		
Layer Default		
Pen Width 2,60 mm	Color 	Line Type 
Fill Color 	Alpha 255	Fill ☒
Center X 143,23 mm	Center Y 91,16 mm	
Angle 0°	Radio 20,14 mm	
Start Angle 45 °	Sweep Angle 270 °	

Fig.43 Sector properties



Fig.44 Draw Sector

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Sector edge line thickness in millimeters	always millimeters
Color	Sector edge line color	
Line Type	line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the circle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the circle with Fill color	
Center X	x-coordinate of the center of the sector	Drawing units
Center Y	y-coordinate of the center of the sector	Drawing units
Angle	Rotate the Sector at 0-90-180-270 °	
Radio	radio of the sector	Drawing units
Start Angle	angle in degrees of start of the sector	
Sweep Angle	angle in degrees covered by the sector	

Table31 Sector properties

16.10.Rectangle

Labelling

Flow Chart

CAD drawing

Identifier Rectangle		
Layer Default		
X1 94,72 mm	Y1 51,06 mm	
X2 199,50 mm	Y2 104,51 mm	
Pen Width 1,50 mm	Color 	Line Type - - - -
Fill Color 	Alpha 255	Fill ☒
Width 104,78 mm	Height 53,44 mm	
Radio 5,00 mm		

Fig.45 Rectangle properties

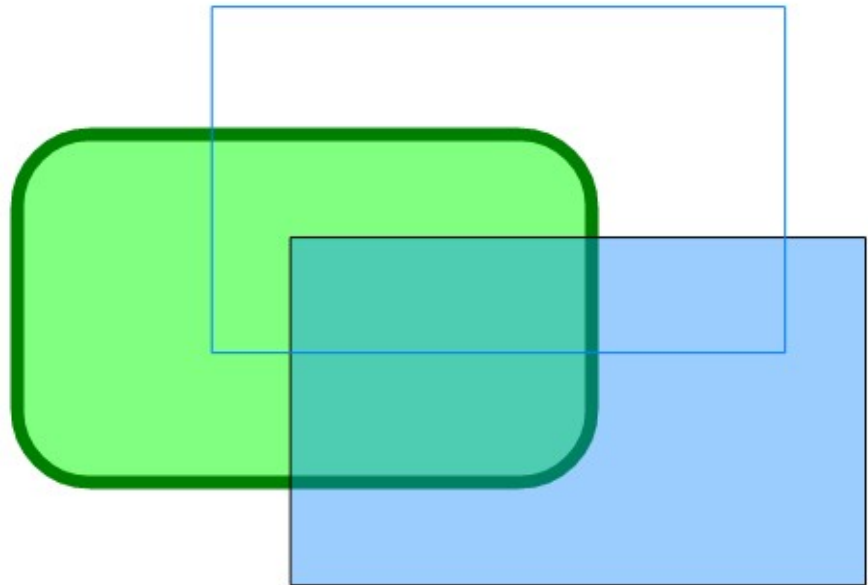


Fig.46 Draw Rectangle

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the rectangle	drawing units
x2,y2	x and y coordinates of the bottom right point of the rectangle	drawing units
width	width of the rectangle	drawing units
height	height of the rectangle	drawing units
Pen Width	Thickness of the edge of the rectangle expressed in millimeters	always millimeters
Color	Edge of the rectangle color	
Line Type	Edge of the rectangle line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the rectangle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the rectangle with Fill color	

Table34 Rectangle properties

With the editor's Snap To End option enabled, you can draw lines to the corners of the rectangle; with Snap To Middle enabled, you can draw to the midpoints of the faces, and with Snap to Center, you can draw to the midpoint of the rectangle.

16.11.Polygon

Labelling

Flow Chart

CAD drawing

To draw a polygon, click on each point in the editor and finish with right-click. You can move a polyline by selecting it and changing its position with the mouse. If you click on the points, you can move them by clicking on them or changing their coordinates from the property inspector. With the polygon selected in the editor, if we right-click on the border lines, we add new points to it. When we select a point, we can modify its coordinates, or we can delete it by pressing the DELETE key.

X	Y
162,19 mm	92,07 mm

Identifier Polygon002		
Layer Default		
X1 187,06 mm	Y1 163,51 mm	
Pen Width 0,10 mm	Color 	Line Type 
Fill Color 	Alpha 219	Fill ☒
X 182,56 mm	Y 83,61 mm	

Fig.47 Polygon properties

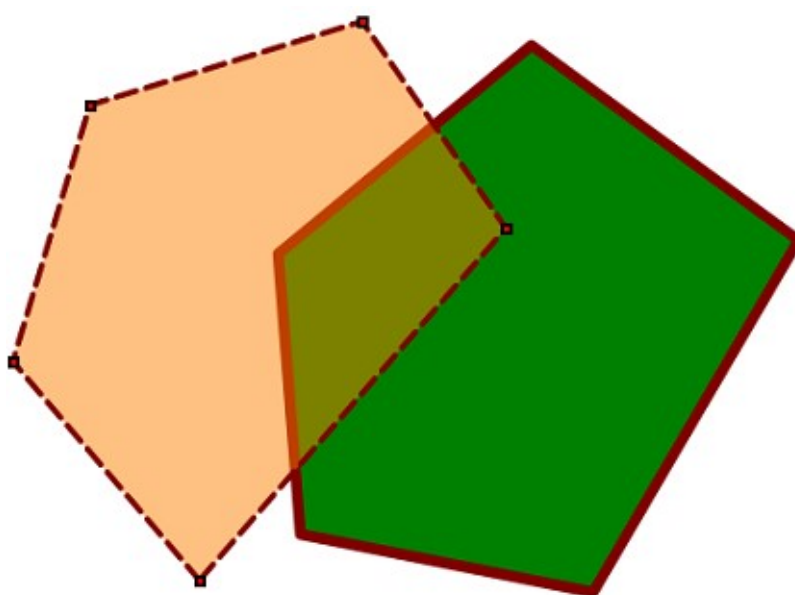


Fig.48 Draw Polygon

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Thickness of the edge of the Polygon expressed in millimeters	always millimeters
Color	Edge of the Polygon color	
Line Type	Edge of the Polygon line stroke style used, we select from a list of predefined styles	
Fill Color	Color used to fill the circle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the circle with Fill color	
x	x coordinates of the selected point	drawing units

y	y coordinates of the selected point	drawing units
Table37 Polygon properties		

In the new version 3.1 you can extend or trim lines that cut the faces of the polygon.

16.12.Symbol

Labelling

Flow Chart

CAD drawing

In the application, all kinds of symbols can be defined, which are nothing more than drawing instructions of various shapes (lines, circles, text, etc.), applying colors to the strokes and fill. The symbols can be grouped by categories and can be defined in various units. The unit is important when working with scales (technical drawings), we will not see a symbol defined in meters with the same size if the drawing units are millimeters, or if the scale is 1 or 100, for example. The symbols have an insertion point and we can apply a rotation angle to them.

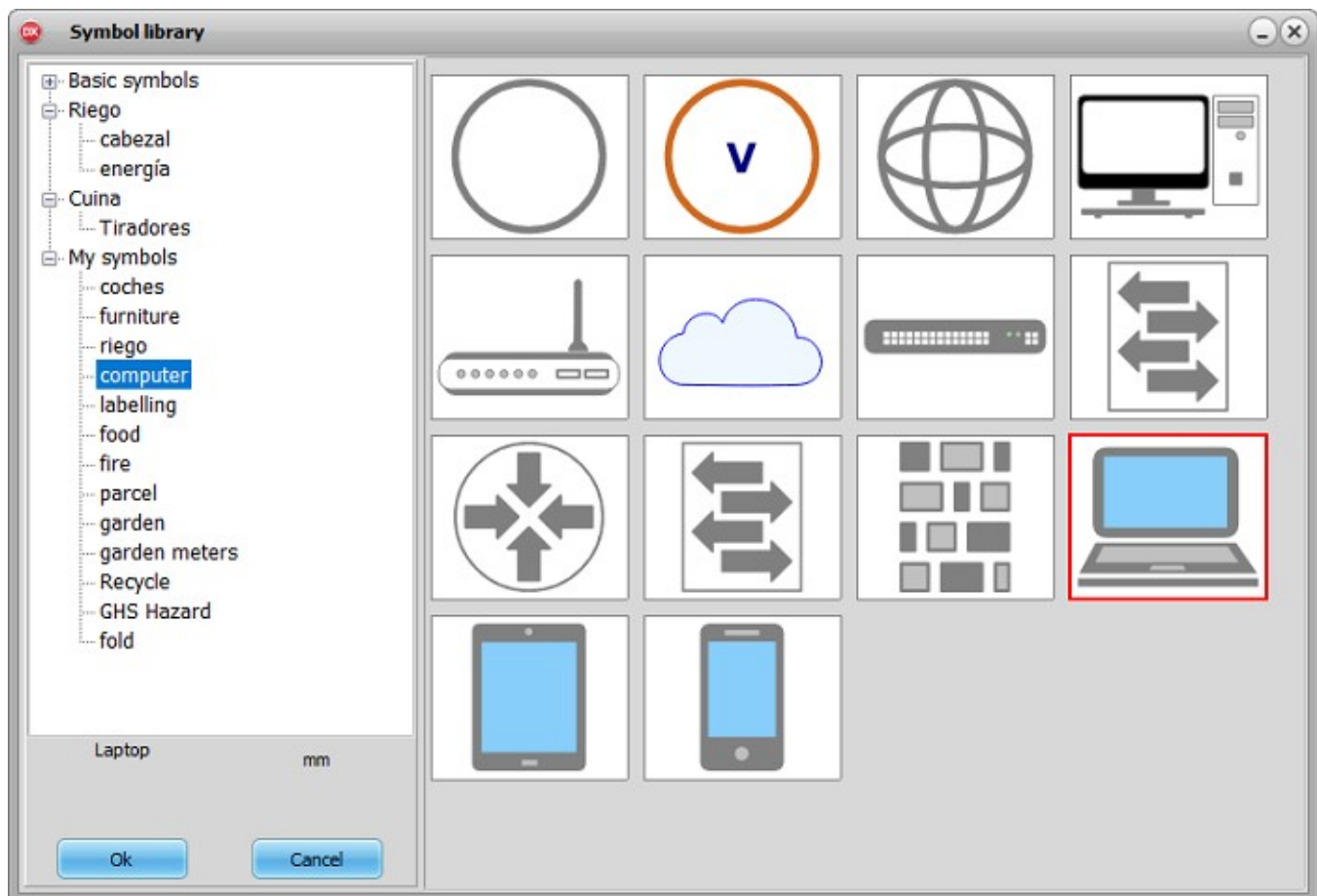


Fig.49 Symbol selection

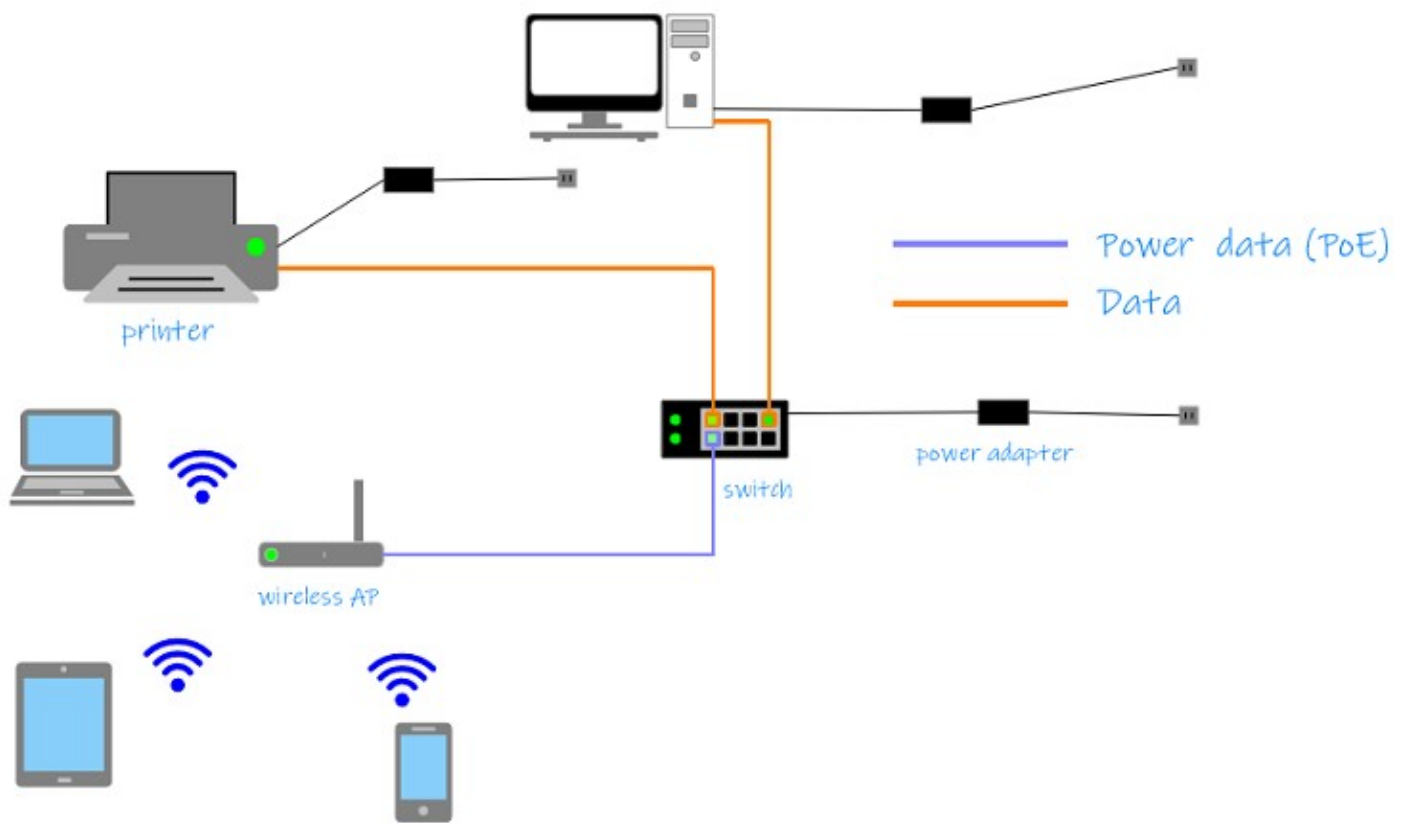
Identifier	
Symbol	
Layer	
Default	
X1	Y1
203,20 mm	36,51 mm
Angle	Scale
45	0,7

Fig.50 Symbol properties**Fig.51** Draw Symbol

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the sector	Drawing units
Y1	y-coordinate of the insertion point of the sector	Drawing units
Angle	Angle of rotation applied to the symbol in degrees (0°-360°)	
Scale	Scale applied to the symbol	

Table38 Symbol properties

When creating symbols, you can define one or more insertion points that serve to connect the symbols with connectors (straight lines, broken lines, arcs or curves). For example, in this diagram, a symbol is created that represents a switch with 8 connectors to show network connections:

**Fig.52** Symbol connectors

16.13.Image

Labelling

Flow Chart

CAD drawing

When we use the image element, we have to configure the *ImageFolder* property of the TEmbedDrawVCL or TEmbedDrawFMX element, in this folder the images that we select to display in the image elements, will be copied.

Identifier Image020		
Layer Default		
X1 117,47 mm	Y1 53,45 mm	
X2 184,41 mm	Y2 123,30 mm	
Pen Width 0,10 mm	Color 	
Fill Color 	Alpha 255	Fill ☒
granny-smith-MW-1.jpg		M ...
Aspect ☒	Embedded ☒	
Field	Filter None	
Frame None	Radio 0,00 mm	Padding 0,00 mm
Width 66,94 mm	Height 69,85 mm	
Angle 0°		

Fig.53 Image properties

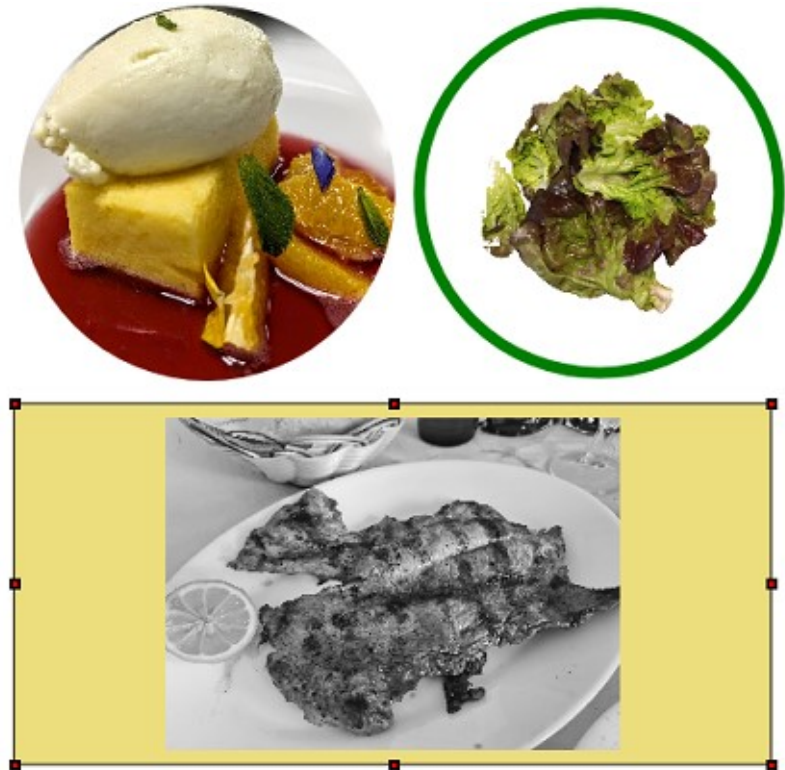


Fig.54 Draw Image Frame types

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the image	drawing units
x2,y2	x and y coordinates of the bottom right point of the image	drawing units
width	width of the image	drawing units
height	height of the image	drawing units
Pen Width	Thickness of the edge of the rectangle or circle when the Frame property is rectangle, circle or crop circle, expressed in millimeters	always millimeters
Color	Edge of the rectangle or circle color, when the Frame property is rectangle, circle or crop circle	

Fill Color	Color used to fill the rectangle or circle when Fill property is true and when the Frame property is rectangle, circle or crop circle. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the rectangle or circle, when the Frame property is rectangle, circle or crop circle with Fill color	
FileName	Click this property to open the image selection dialog box, you can also open the dialog box by double clicking on the image. If the option is enabled, we can download from a map service by pressing the M button.	
Aspect	Check this property if you want to maintain the aspect ratio between the width and height of the image file.	
Embedded	Check this property to save the image file inside the label and/or drawing file. This can be useful if you want to share files with other computers.	
Field	if the label is attached to a data, we select the field to extract imagen data.	
Filter	We select from a list whether we want to apply a gray or black and white filter to the image.	
Frame	We select from a list whether we want to display a rectangular or circular background frame or crop the image to a circle.	
Radio	When we display the image frame rectangle (Frame property), we can indicate the radius of the corners of the rectangle	always millimeters
Padding	separating image from background frame	always millimeters
Angle	Rotate the Sector at 0-90-180-270 °	

Table39 Image properties

In version 3.1, we can select an image from a map service. Pressing the M button opens a dialog box where we can select the map service, zoom level, the latitude and longitude coordinates of the image's center, whether to display a marker, and whether to adjust the drawing scale to the image (when in emDrawing mode). This dialog box also includes a service for obtaining coordinates from a place name.

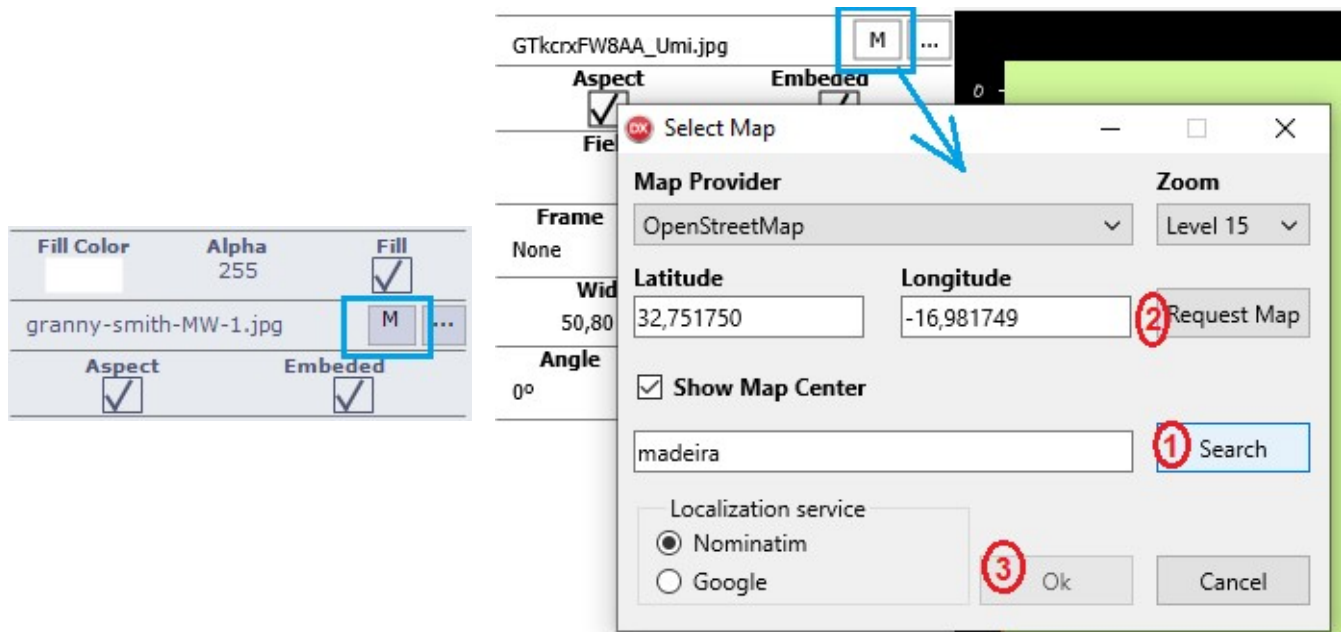


Table40 Select image from map service

16.14.Rank

Labelling

Flow Chart

CAD drawing

With this element we can visualize a ranking (rating), where we indicate the maximum possible value and the position of the rating. It can be drawn with various figures, placed in a vertical or horizontal position and mark the positions from the left or the right.

Identifier Rank		
Layer Default		
X1 102,92 mm	Y1 73,55 mm	
X2 194,20 mm	Y2 89,69 mm	
Pen Width 0,10 mm	Color 	Gap 1,00 mm
Fill Color 	Alpha 255	Fill ☒
Width 91,28 mm	Height 16,14 mm	
Empty 	Alpha 255	Draw ☒
Maximum 5	Position 3	Rank Pos. H-Left
Type Square		Field

Fig.55 Rank properties

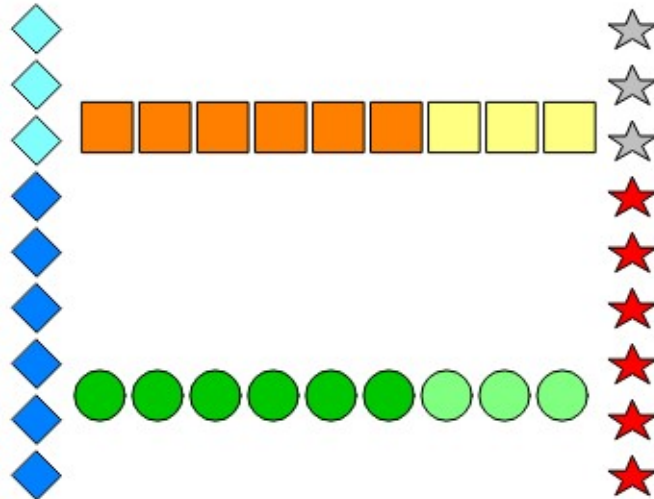


Fig.56 Draw Rank

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the rectangle	drawing units
x2,y2	x and y coordinates of the bottom right point of the rectangle	drawing units
width	width of the rectangle	drawing units
height	height of the rectangle	drawing units
Pen Width	Rank edge line thickness in millimeters	always millimeters
Color	Rank edge line color	
Gap	Separation between each of the figures in the ranking	always millimeters
Fill Color	Color of rank position values. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	

Empty	Color of no rank position values. Alpha property is used with this color
Alpha	Alpha value assigned to the Empty color to apply transparency (0: full transparency, 255: no transparency)
Draw	Check this if you want to draw with empty color the non rank positions
Maximum	Maximum value possible of rank
Position	Value assigned to rank
Rank Position	Select from list four possible values: horizontal or vertical position or begin from left or right side
Type	Select from list possible figures to represent the rank: square, circle, star or rhombus
Field	if the label is attached to a data, we select the field that identifies the value of the rank position, the field must be an integer

Table41 Rank properties

16.15.Level

Labelling

Flow Chart

CAD drawing

This element allows you to represent, as a fluid in a pipe or radial sector (depending on the style), a percentage of a value over a maximum value.

Identifier Level002		
Layer Default		
Pen Width 0,10 mm	Color 	Radio 10,21 mm
Fill Color 	Alpha 255	Fill ☒
Center X 174,63 mm	Center Y 106,63 mm	
Font Height 5,00 mm	Color 	
Font Name Arial		
Bold ☐	Italic ☐	Underline ☐
Angle 0°	Text	
Field	Format	
Value 	Alpha 255	Gap Angle 0 °
Maximum 100	Value 50	Type Vert. Fluid

Fig.57 Level properties

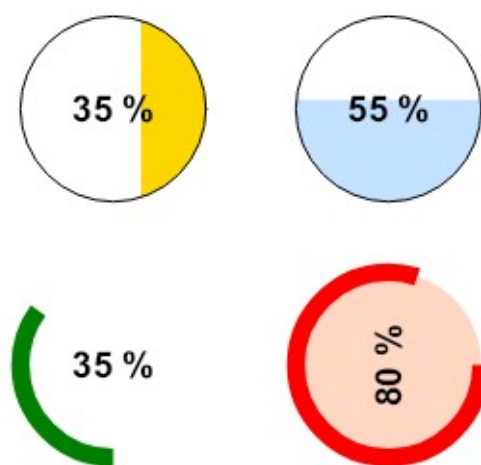


Fig.58 Draw Level

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Line border thickness in millimeters of border circle	always millimeters
Color	Line border color	
Radio	Circle radius	drawing units
Fill Color	Color used to fill the background text when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background text with Fill color	
Center X	x-coordinate of the center of the level	Drawing units

Center Y	y-coordinate of the center of the level	Drawing units
Font Height	Text font height	always millimeters
Color	Font color used to draw the text	
Font Name	We select the font type of the text from the list	
Bold	Check the property if you want the text in bold	
Italic	Check the property if you want the text in italic	
Underline	Check the property if you want to display an underline below the text	
Angle	Rotate the text at 0-90-180-270 °	
Text	text to draw at level center	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign as level value	
Format	if the label is attached to a data, and the field used is datetime or float, we can format the text output with this property. (For example, if it is a date type field, we can write dd-mm-yyyy, or if it is a float type we can write 0.00 €)	
Value	Color used to fill de value sector or fraction	
Alpha	Alpha value assigned to the Value color to apply transparency (0: full transparency, 255: no transparency)	
Gap Angle	if use the radial style, this value represents the part of the circumference (in degrees), that is not taken into account in the drawing sector	
Maximum	maximum value that we can represent with this level	
Value	value that we can represent with this level	
Style	We indicate the style, which can be of four types: horizontal or vertical, and whether we are drawing a sector (fluid) or a part of the circumference (radial).	

Table42 Text properties

16.16.Nutriscore

Labelling

Flow Chart

CAD drawing

Nutriscore is a front-of-pack nutritional labeling system designed to help consumers make healthier food choices at a glance. It uses a color-coded scale from A to E, with each letter corresponding to a specific color (green to red). The score is determined based on the nutritional quality of the food, considering factors such as the content of sugar, saturated fat, salt, calories, protein, fiber, and the presence of fruits, vegetables, legumes, nuts, and certain oils. A product with an 'A' rating is considered healthier, while one with an 'E' rating is less healthy.---

Identifier Nutri-Score001		
Layer Default		
X1 109,27 mm	Y1 37,84 mm	
X2 223,04 mm	Y2 79,64 mm	
Pen Width 0,10 mm	Color 	Radio 5,00 mm
Fill Color 	Alpha 255	Fill ☒
Width 113,77 mm	Height 41,80 mm	
Value 	Title Color 	Char Color
A 	B 	C
D 	E 	
Title NUTRI-SCORE		
Show Title ☒		
Margin 2,0	Gap 0,0	GapValue 1,0
Char Radio 1,0	Black/White ☐	
Field	Value A	
Angle 0°	Type Style 1	

Fig.59 NutriScore properties

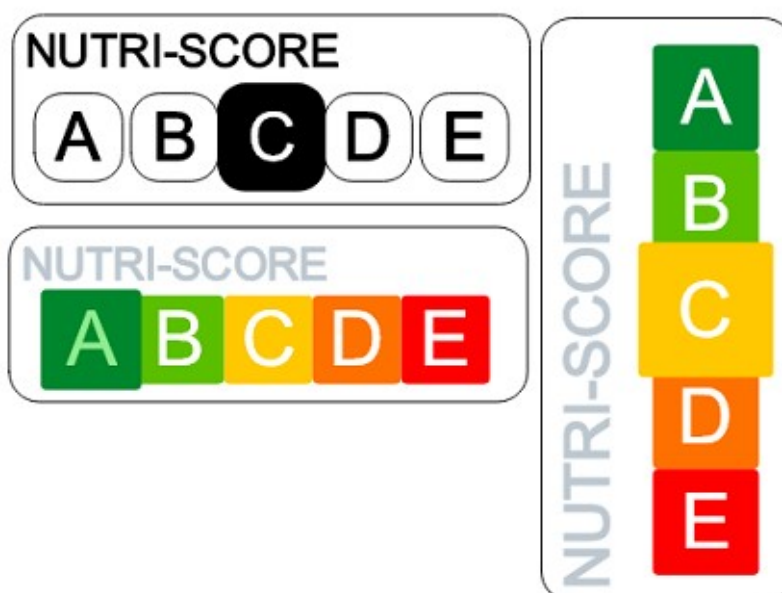


Fig.60 Draw Nutriscore

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the nutriscore	drawing units
x2,y2	x and y coordinates of the bottom right point of the nutriscore	drawing units
width	width of the nutriscore	drawing units

height	height of the nutriscore	drawing units
Pen Width	Nutriscore border line thickness in millimeters	always millimeters
Color	Nutriscore border line color	
Fill Color	Color used to fill the circle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the circle with Fill color	
Value color	Active rating letter font color	
Title color	Title Nutriscore font color	
Char color	Non active rating letter font color	
Char colors	Colors assigned to each char letter	
Title	Title text	
Show Title	Check if you want to show or not the title	
Margin	Margin between the edge of the Nutriscore and the interior elements	always millimeters
Gap	separation between letters	always millimeters
Gap Value	separation added around active letter	always millimeters
Char radio	radius applied to the edges of each letter's rectangle	always millimeters
Black/White	Draw the Nutri-Score only with black and white colors	
Field	if the label is attached to a data, we select the field that identifies the value of the active letter to apply in the Nutri-Score, the field must be a char	
Value	Select from A to E the active letter of this Nutri-Score	
Angle	Rotate the Nutri-Score at 0-90-180-270 °	
Type	Select the style used. Style 1: draw horizontal Nutri-Score, Style 2: draw vertical NutriScore	
Table44 Nutri-Score properties		

16.17.Text

Labelling

Flow Chart

CAD drawing

In **EmbedDraw**, we edit the text element directly on the editor, we click on the place where we want to place it, we see the text cursor that is activated and we start typing. We can insert special symbols by pressing the ALT + key (symbol code), when we release the ALT key the symbol will be inserted. For example, the diameter symbol is written with ALT + 0216 (Ø). In version 3.1 there is no need to hold down the CTRL key while moving the text with the mouse, you can push the mouse and move. Also you can place the caret in certain positions clicking inside the text.

Identifier		
Layer Default		
X1 88,37 mm	Y1 95,51 mm	
Pen Width 0,00 mm	Color 	Radio 6,50 mm
Fill Color 	Alpha 255	Fill ☒
Padding Horz. 3,00 mm	Padding Vert. 0,00 mm	
Font 15,00 mm	Scale X 1,00	Color 
Font Name @HP Simplified Hans		
Bold ☒	Italic ☒	Underline ☐
Angle 0°		
Field	Format	
		

Fig.61 Text properties



Fig.62 Draw Text

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the text	Drawing units
Y1	y-coordinate of the insertion point of the text	Drawing units
Pen Width	Line border thickness in millimeters around the text	always millimeters
Color	Line border color	
Angle	Rotate the text at 0-90-180-270 °	

Radio	When we display the text background rectangle (Pen Width > 0), we can indicate the radius of the corners of the rectangle	always millimeters
Fill Color	Color used to fill the background text when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background text with Fill color	
Padding Horz	separating text from background rectangle to left and right	always millimeters
Padding Vertical	separating text from background rectangle to top and bottom	always millimeters
Font Height	Text font height	always millimeters
Scale X	If we want to increase or decrease the space occupied by the text, we can apply a scale to it, by default it is 1	
Color	Font color used to draw the text	
Font Name	We select the font type of the text from the list	
Bold	Check the property if you want the text in bold	
Italic	Check the property if you want the text in italic	
Underline	Check the property if you want to display an underline below the text	
Angle	Rotate the text at 0-90-180-270 °	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data	
Format	if the label is attached to a data, and the field used is datetime or float, we can format the text output with this property. (For example, if it is a date type field, we can write dd-mm-yyyy, or if it is a float type we can write 0.00 €)	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point.	
Table45 Text		

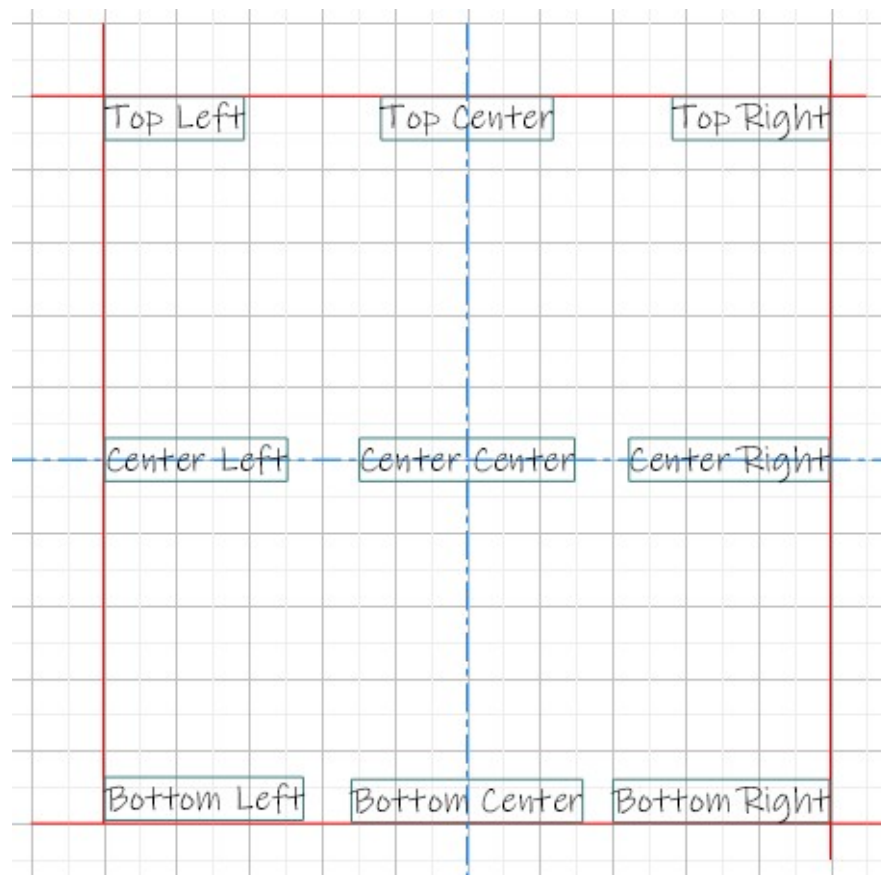


Fig.63 Align Text (angle 0°)

16.18.Paragraph

Labelling

Flow Chart

CAD drawing

Identifier Paragraph		
Layer Default		
X1 93,39 mm	Y1 53,45 mm	
X2 229,39 mm	Y2 126,74 mm	
Pen Width 1,50 mm	Color 	Radio 8,20 mm
Fill Color	Alpha 000	Fill ☒
Width 136,00 mm	Height 73,29 mm	
Padding Horz. 5,20 mm	Padding Vert. 0,00 mm	
Font 5,80 mm	Iterline 1,00	Color 
Font Name Monospace Neon Var		
Bold ☒	Italic ☐	Underline ☐
Angle 0°		
Field	Format	
     		
Paragraph in PLABEL with several lin...		

Fig.64 Paragraph properties

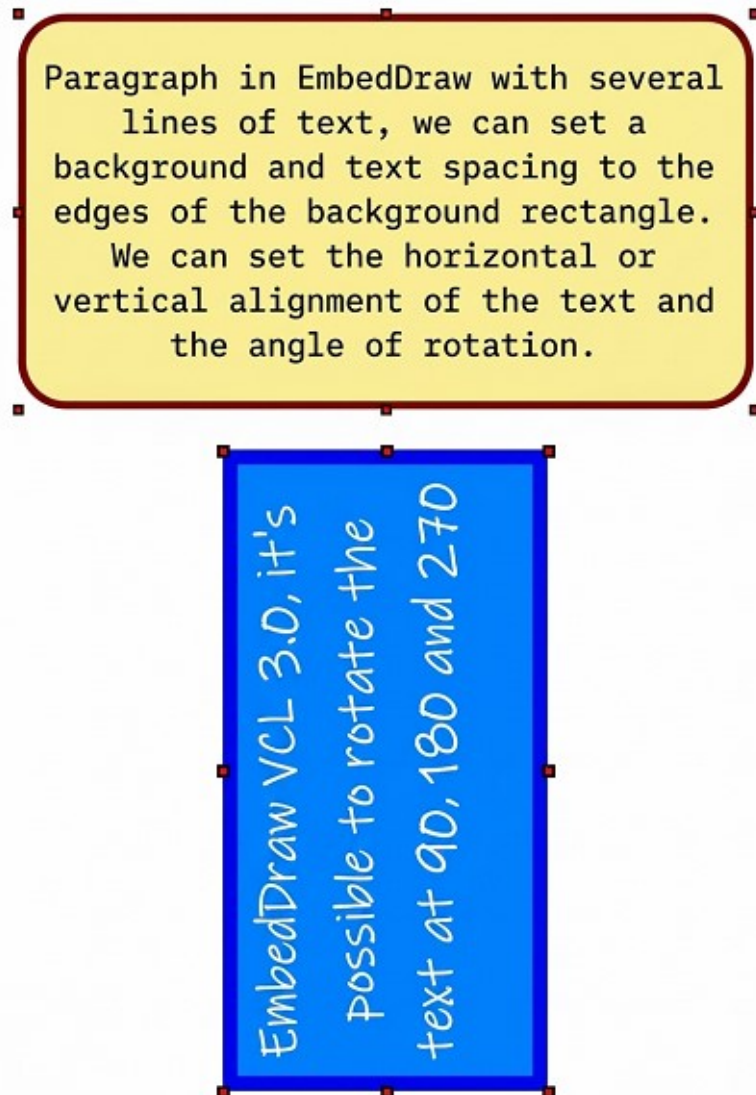


Fig.65 Draw Paragraph

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectables.	
x1,y1	x and y coordinates of the top left point of the paragraph	drawing units
x2,y2	x and y coordinates of the bottom right point of the paragraph	drawing units

width	width of the paragraph	drawing units
height	height of the paragraph	drawing units
Pen Width	Line border thickness in millimeters around the paragraph	always millimeters
Color	Line border color	
Angle	Rotate the text at 0-90-180-270 °	
Radio	When we display the paragraph background rectangle (Pen Width > 0), we can indicate the radius of the corners of the rectangle	always millimeters
Fill Color	Color used to fill the background paragraph when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background paragraph with Fill color	
Padding Horz	Separating text from background rectangle to left and right	always millimeters
Padding Vertical	Separating text from background rectangle to top and bottom	always millimeters
Font Height	Text font height	always millimeters
Interline	Separation factor for text lines, default is 1	
Color	Font color used to draw the text	
Font Name	We select the font type of the text from the list	
Bold	Check the property if you want the text in bold	
Italic	Check the property if you want the text in italic	
Underline	Check the property if you want to display an underline below the text	
Angle	Rotate the text at 0-90-180-270 °	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract the text.	
Format	if the label is attached to a data, and the field used is datetime or float, we can format the text output with this property. (For example, if it is a date type field, we can write dd-mm-yyyy, or if it is a float type we can write 0.00 €)	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point.	
Text	Click the button to open dialog box to write the Text.	

Table46 Paragraph properties

16.19.Polytext

Labelling

Flow Chart

CAD drawing

This element is used to concatenate one or more text elements with different formats (color, font size, etc.), and to link one of these elements to a field in the data source. If the field is a date or numeric type, we can format it.

Identifier Polytext001		
Layer Default		
X1 60,00 mm	Y1 40,00 mm	
Pen Width 0,10 mm	Color 	Radio 5,00 mm
Fill Color 	Alpha 255	Fill ☒
Padding Horz. 0,00 mm	Padding Vert. 0,00 mm	
Data →fruits ...		
Type Text	Barcode Type CODE39	
Bar Width 0,30 mm	Bar Height 10,00 mm	
Show Number ☒	Checksum ☐	
Factor 3,00	Angle 0°	



Fig.67 Draw Polytext

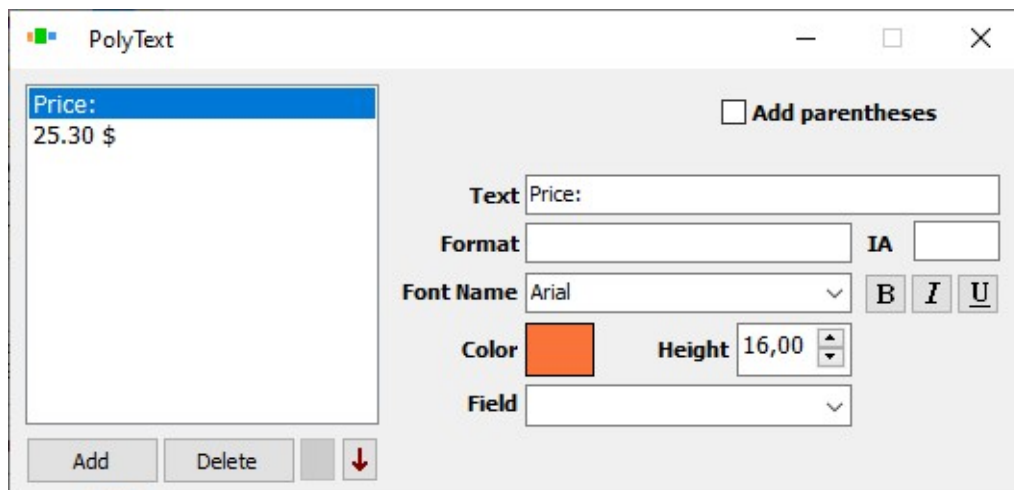
Fig.66 Polytext properties

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the polytext	Drawing units
Y1	y-coordinate of the insertion point of the polytext	Drawing units
Pen Width	Line border thickness in millimeters around the text	always millimeters
Color	Line border color	
Radio	When we display the text background rectangle (Pen Width > 0), we can indicate the radius of the corners of the rectangle	always millimeters
Padding Horz	separating text or barcode from background rectangle to left and right	always millimeters

Padding Vertical	separating text or barcode from background rectangle to top and bottom	always millimeters
Data	If we want the polytext elements (or barcode) to be linked to some data, we indicate the source of the data here. Push the button with three points to open dialog to edit polytext elements.	
Color	Color used to draw the barcode lines.	
Fill Color	Color used to fill the background when Fill property is true.	
Fill	Check this property if you want to fill the background with Fill color	
Type	The text representing the sum of each of the strings can be displayed as text or drawn as a 1D barcode, QR or DataMatrix. When it is a barcode, the elements can be assigned an IA (application identifier) to form an EAN128 code.	
Barcode Type	Barcode type, it must be taken into account that each type of code has restrictions regarding the type of symbols (numbers and/or letters) and their length. [EAN13, EAN8, UPCA, UPCE0, CODE39, CODE39EX, CODE93, CODE93EX, CODABAR, EAN128A, EAN128B, EAN128C, EAN128AUTO, CODE128A, CODE128B, CODE128C, CODE128AUTO, INTER_25, INDUS_25, MATRIX_25, CODE11, MSI, POSTNET]	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign the barcode text	
Bar Width	width of each of the bars that make up the code	always millimeters
Bar Height	height of each of the bars that make up the code	always millimeters
Show Number	Check this property if you want to see the barcode text below	
Check Sum	Check this box if you want to perform the calculation and assign the last digit in some barcodes	
Factor	Barcodes are drawn alternating bars of various widths, this factor property establishes the relationship between the widest and narrowest bars. When we modify it we can enlarge or reduce the code, but we must ensure that it will be readable by readers.	
Angle	Angle of rotation applied to the barcode in degrees (0°-90°-180°-270°)	

Table47 Polytext properties

We can click on the (...) button in the property inspector or double-click on the polytext to open the editor of the elements that compose it.

**Fig.68** Edit polytext properties

16.20.Barcode

Labelling

Flow Chart

CAD drawing

Identifier Barcode010		
Layer Default		
X1 76,46 mm	Y1 20,23 mm	
Padding Horz. 3,00 mm	Padding Vert. 1,00 mm	
Color 	Fill Color 	Fill ☒
Code 12562		
Barcode Type CODE39	Field	
Bar Width 0,30 mm	Bar Height 10,00 mm	
Show Number ☒	Checksum ☐	
Font Name Arial		
Font Height 3,00 mm	Angle 180°	
Factor 3,00		
  		

Fig.69 Barcode properties

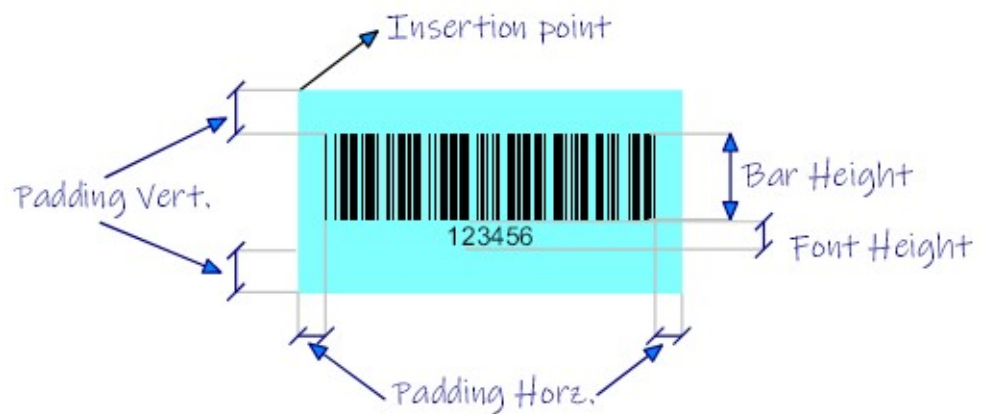


Fig.70 Draw Barcode

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the barcode	Drawing units
Y1	y-coordinate of the insertion point of the barcode	Drawing units
Padding Horz	separating barcode lines from background rectangle to left and right	always millimeters
Padding Vertical	separating barcode lines from background rectangle to top and bottom	always millimeters
Color	Color used to draw the barcode lines.	
Fill Color	Color used to fill the background when Fill property is true.	
Fill	Check this property if you want to fill the background with Fill color	

Code	Code text that we want represent in barcode.	
Type	Barcode type, it must be taken into account that each type of code has restrictions regarding the type of symbols (numbers and/or letters) and their length. [EAN13, EAN8, UPCA, UPCE0, CODE39, CODE39EX, CODE93, CODE93EX, CODABAR, EAN128A, EAN128B, EAN128C, EAN128AUTO, CODE128A, CODE128B, CODE128C, CODE128AUTO, INTER_25, INDUS_25, MATRIX_25, CODE11, MSI, POSTNET]	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign the barcode text	
Bar Width	width of each of the bars that make up the code	always millimeters
Bar Height	height of each of the bars that make up the code	always millimeters
Show Number	Check this property if you want to see the barcode text below	
Check Sum	Check this box if you want to perform the calculation and assign the last digit in some barcodes	
Font Name	We select the font type of the text used (Show Number checked) from the list	
Font Height	Text font height	always millimeters
Angle	Angle of rotation applied to the barcode in degrees (0°-90°-180°-270°)	
Factor	Barcodes are drawn alternating bars of various widths, this factor property establishes the relationship between the widest and narrowest bars. When we modify it we can enlarge or reduce the code, but we must ensure that it will be readable by readers.	
Align	Align the barcode to left, center or right side.	

Table48 Barcode properties

16.21.PDF 417

Labelling

Flow Chart

CAD drawing

Identifier PDF417002		
Layer Default		
X1 80,83 mm	Y1 104,64 mm	
Color 	Fill Color 	Fill ☒
Padding Horz. 3,00 mm	Padding Vert. 1,70 mm	
Field nombre	Angle 0°	
PDF417		
Bar Width 0,49 mm	Bar Height 0,97 mm	Factor 2,00

Fig.71 PDF 417 properties



Fig.72 Draw PDF 417

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the PDF 417	Drawing units
Y1	y-coordinate of the insertion point of the PDF 417	Drawing units
Padding Horz	separating barcode lines from background rectangle to left and right	always millimeters
Padding Vertical	separating barcode lines from background rectangle to top and bottom	always millimeters
Color	Color used to draw the barcode lines.	
Fill Color	Color used to fill the background when Fill property is true.	
Fill	Check this property if you want to fill the background with Fill color	
Code	Code text that we want represent in barcode.	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign the barcode text	
Bar Width	width of each of the bars that make up the code	always millimeters

Bar Height	height of each of the bars that make up the code	always millimeters
Factor	If it is different from 0, it establishes the aspect ratio between the height of the bars and their width, that is, it establishes the height of the bars based on the bar width.	
Angle	Angle of rotation applied to the barcode in degrees (0°-90°-180°-270°)	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point.	
Table49 PDF 417 properties		

16.22.DataMatrix

Labelling

Flow Chart

CAD drawing

Identifier DataMatrix003		
Layer Default		
X1 122,11 mm	Y1 37,44 mm	
Color 	Fill Color 	Fill ☒
Padding Horz. 2,00 mm	Padding Vert. 2,00 mm	
  		
Field poblacion	Angle 90°	
DataMatrix 		
Bar Width 0,30 mm	Bar Height 0,30 mm	Factor 0,00

Fig.73 DataMatrix properties



Fig.74 Draw DataMatrix

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the DataMatrix	Drawing units
Y1	y-coordinate of the insertion point of the DataMatrix	Drawing units
Padding Horz	separating barcode lines from background rectangle to left and right	always millimeters
Padding Vertical	separating barcode lines from background rectangle to top and bottom	always millimeters
Color	Color used to draw the barcode lines.	
Fill Color	Color used to fill the background when Fill property is true.	
Fill	Check this property if you want to fill the background with Fill color	
Code	Code text that we want represent in barcode.	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign the barcode text	
Bar Width	width of each of the bars that make up the code	always millimeters

Bar Height	height of each of the bars that make up the code	always millimeters
Factor	If it is different from 0, it establishes the aspect ratio between the height of the bars and their width, that is, it establishes the height of the bars based on the bar width.	
Angle	Angle of rotation applied to the barcode in degrees (0°-90°-180°-270°)	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point.	
Table50 DataMatrix properties		

16.23.QR

Labelling

Flow Chart

CAD drawing

Identifier QRCode016		
Layer Default		
X1 221,06 mm	Y1 49,61 mm	
Color 	Fill Color 	Fill ☒
Padding Horz. 2,00 mm	Padding Vert. 2,00 mm	
Field nombre	Angle 0°	
QRCode ...		
Bar Width 0,30 mm	Bar Height 0,30 mm	Factor 0,00

Fig.75 QR properties



Fig.76 Draw QR

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
X1	x-coordinate of the insertion point of the QR	Drawing units
Y1	y-coordinate of the insertion point of the QR	Drawing units
Padding Horz	separating barcode lines from background rectangle to left and right	always millimeters
Padding Vertical	separating barcode lines from background rectangle to top and bottom	always millimeters
Color	Color used to draw the barcode lines.	
Fill Color	Color used to fill the background when Fill property is true.	
Fill	Check this property if you want to fill the background with Fill color	
Code	Code text that we want represent in barcode.	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data and assign the barcode text	
Bar Width	width of each of the bars that make up the code	always millimeters

Bar Height	height of each of the bars that make up the code	always millimeters
Factor	If it is different from 0, it establishes the aspect ratio between the height of the bars and their width, that is, it establishes the height of the bars based on the bar width.	
Angle	Angle of rotation applied to the barcode in degrees (0°-90°-180°-270°)	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point.	
Table51 QR properties		

16.24.Package sizes

Labelling

Flow Chart

CAD drawing

This element is used to show the dimensions of a 2D element (height = 0) or 3D (width, length and height). You can show only the edges or solid fill, and we can show the text of the measurements on the left or not.

Identifier Package006		
Layer Default		
X1 115,36 mm	Y1 117,74 mm	
X2 183,89 mm	Y2 165,10 mm	
Pen Width 0,10 mm	Color 	Line Type
Fill Color 	Alpha 255	Fill ☒
Width 68,53 mm	Height 47,36 mm	
Radio 0,00 mm		
Width 50	Length 40	Height 0
width	length	height
Font Color 	Size Color 	
Style Solid with sizes	Format 0 mm	
Font Height 4,00 mm	Font Box 2,50 mm	
Field 		

Fig.77 Package sizes properties

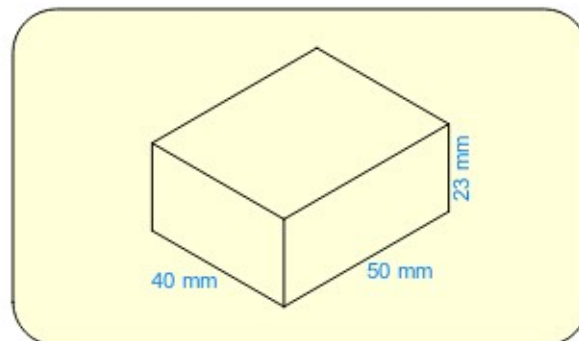
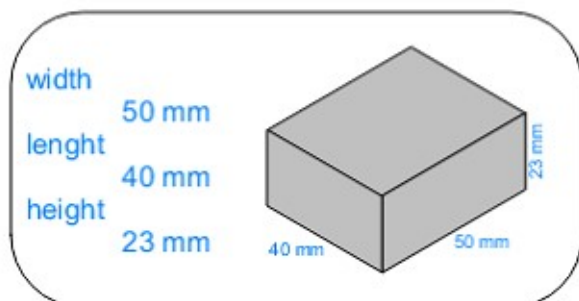
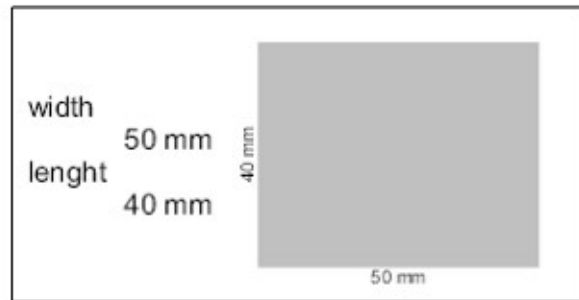


Fig.78 Draw Package sizes

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the background rectangle	drawing units
x2,y2	x and y coordinates of the bottom right point of the background rectangle	drawing units
width	width of the background rectangle	drawing units

height	height of the background rectangle	drawing units
Pen Width	Line border thickness in millimeters around the background rectangle	always millimeters
Color	Line border color	
Radio	When we display the background rectangle (Pen Width > 0), we can indicate the radius of the corners of the rectangle	always millimeters
Fill Color	Color used to fill the background rectangle when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background rectangle with Fill color	
Font Height	Text font height used for measures	always millimeters
Font Box	Text font height used for box measures	always millimeters
Font Color	Font color used to draw the text	
Font Box	Font color used to draw or fill the box	
Style	To indicate if we want to show only the edges or solid fill and we can show the measurements text on the left or not. Also you can define a 2D shape (width x length) and the drills and slots from text notation.	
Format	We can indicate a format to display the measurements (for example "0 mm")	
Width	numerical value of the width measurement, we can also assign the name of the measurement to be displayed.	
Length	numerical value of the length measurement, we can also assign the name of the measurement to be displayed.	
Height	numerical value of the height measurement, we can also assign the name of the measurement to be displayed.	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract data. The dimensions are parsed from text.	

Table52 Package sizes properties

psWireFrameNoDim	Wireframe without dimension text.
psWireFrameDim	Wireframe with dimension text.
poSolidNoDim	Solid without dimension text.
poSolidDim	Solid with dimension text.
poPartDrill	Part + drills/slots without dimension text over the part.
poPartDrillDim	Part + drills/slots with dimension text over the part.

Table53 Packages styles**16.24.0.1 Data Notation**

Each line uses the format variable:value.

```
w:width  
l:length  
h:height  
f:1  
  
d:"Name",x,y,diameter,depth  
s:"Name",x1,y1,x2,y2,diameter,depth
```

Rules :

- w and l are required when Data is used.
- h is optional and sets the package height.
- d and s can be repeated multiple times.
- f:1 enables mirrored coordinate orientation.
- d and s are valid only in poPartDrill and poPartDrillDim.
- If syntax is invalid, EWoodNotationError is raised.
- any h value in drill notation is ignored by design.

Slot notation (s) in detail

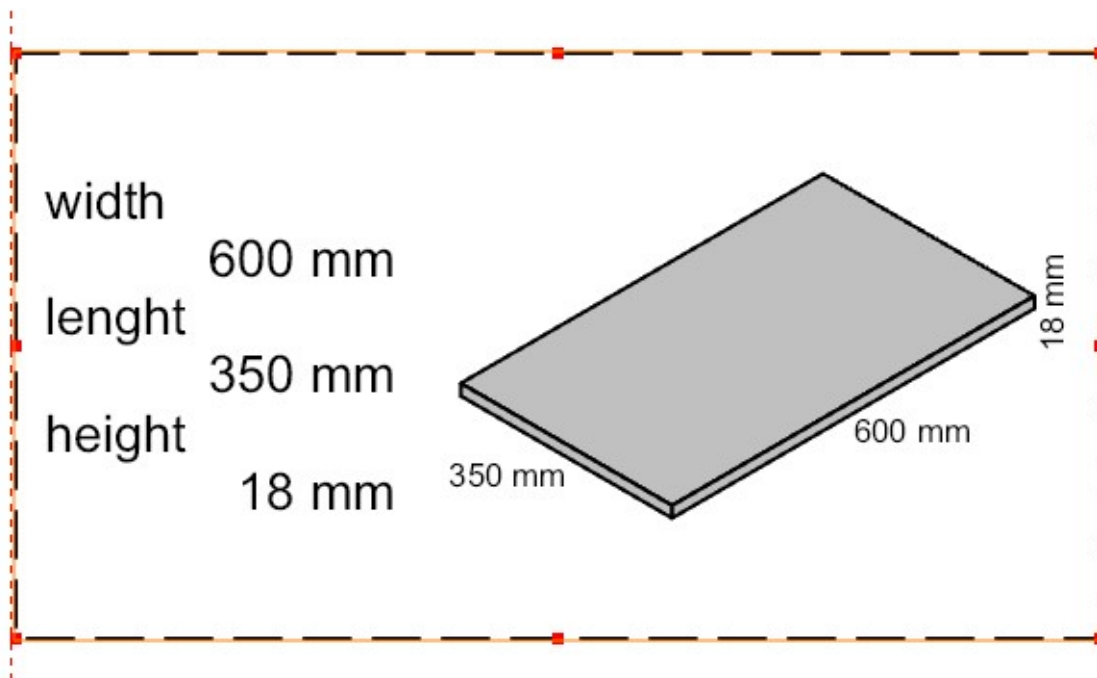
Slot lines define elongated holes (slot cuts) in drill styles.

```
s:"Name",x1,y1,x2,y2,diameter,depth
```

- Name: slot identifier in quotes. The quoted name is mandatory. Exactly 6 numeric values are required after the name. s can be repeated for multiple slots. Example: "S1".
- x1,y1: start point of the slot center line.
- x2,y2: end point of the slot center line.
- diameter: slot width (tool/slot diameter).
- depth: machining depth value.

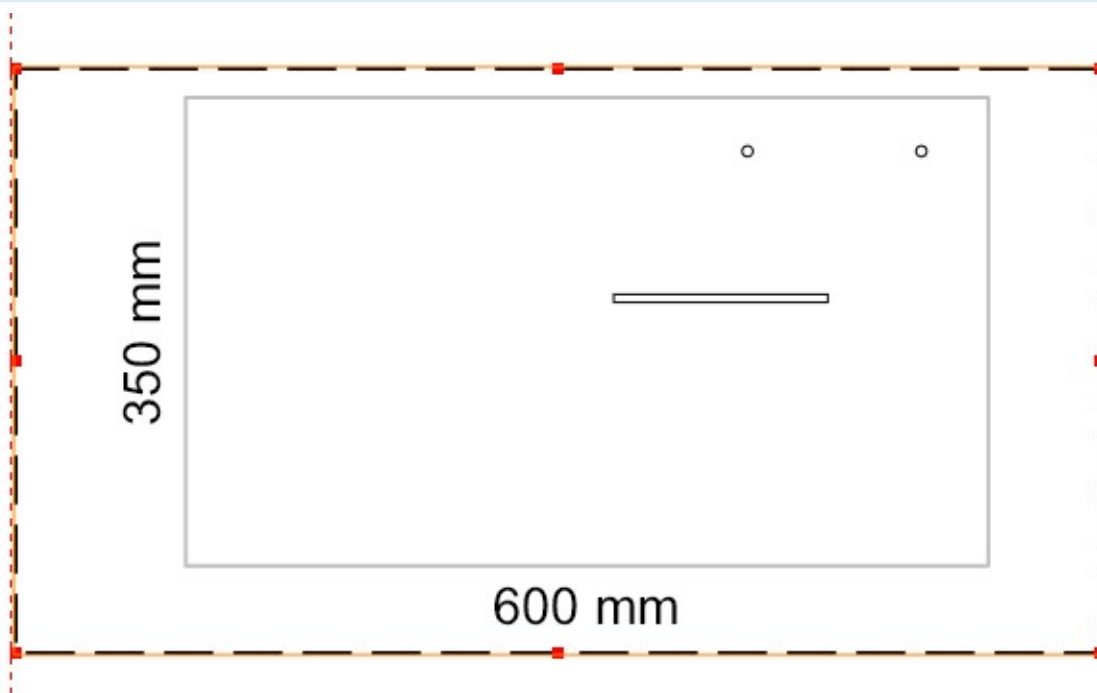
Example for 3D or solid/wireframe styles:

```
w:600  
l:350  
h:18
```



Example for Part & Drill styles:

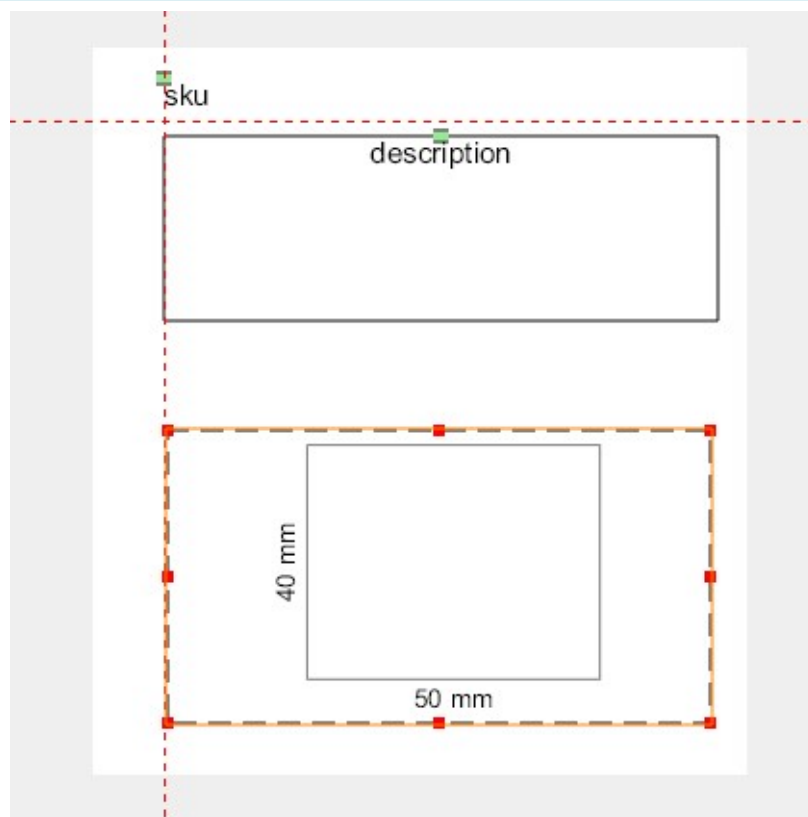
```
w:600  
l:350  
f:1  
d:"D1",50,40,8,12  
d:"D2",180,40,8,12  
s:"S1",120,200,280,200,6,10
```



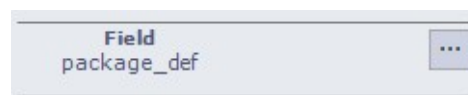
Linking to data

if we link the label to Json Data, we can use something like this (assigned in Data tab in label's properties):

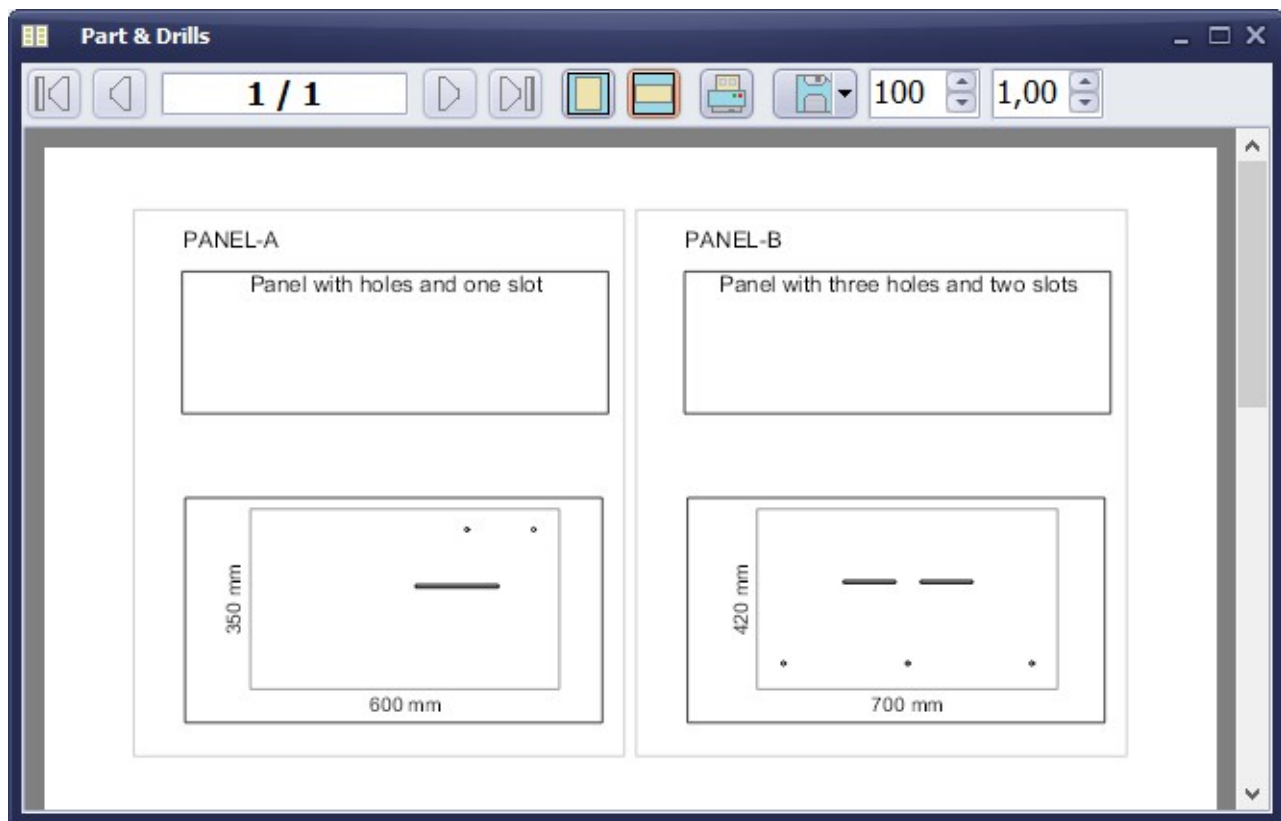
```
{
  "PackageDrillings": [
    {
      "id": 101,
      "sku": "PANEL-A",
      "description": "Panel with holes and one slot",
      "package_def": "w:600\nl:350\nh:18\nf:1\nd:\\"D1\\"",50,40,8,12\nd:\\"D2\\"",180,40,8,12\ns:\\"S1\\"",120,200,
    },
    {
      "id": 102,
      "sku": "PANEL-B",
      "description": "Panel with three holes and two slots",
      "package_def": "w:700\nl:420\nh:18\nd:\\"D1\\"",60,60,10,12\nd:\\"D2\\"",350,60,10,12\nd:\\"D3\\"",640,60,10,
    }
  ]
}
```



Assign *package_def* to the Field property:



when print or preview we get something like this:



16.25.Table

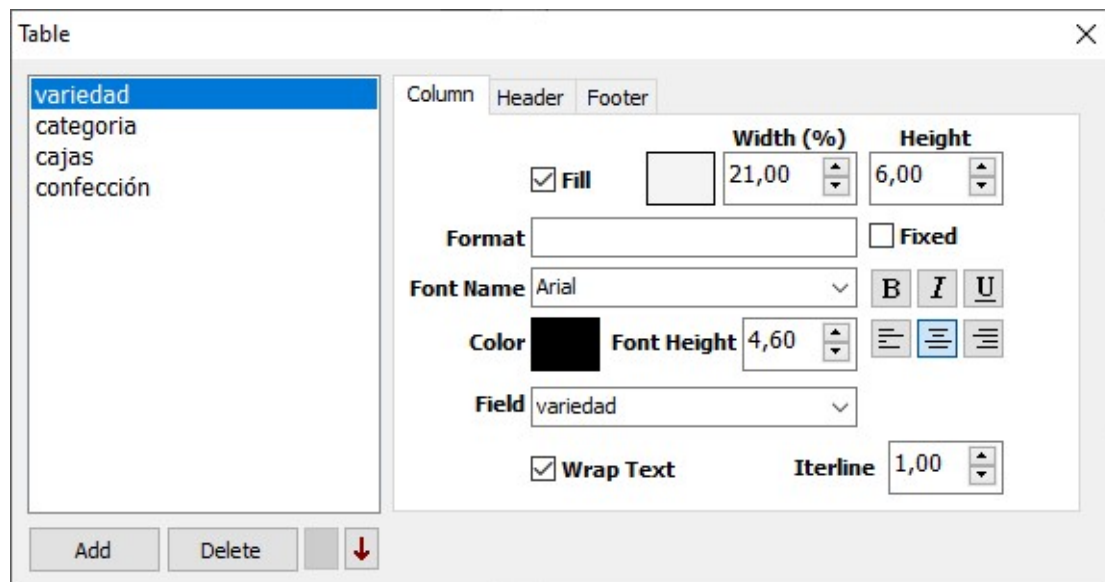
Labelling**Flow Chart****CAD drawing**

This element allows you to display in table format a series of records of data linked to the main data (it would be the detail of a master-detail relationship). If you are working with data in json format, the table data will be extracted from an Array type value that must be included in the list of the main Array.



Fig.79 Array property included in the main json used as data.

We edit the table columns by double-clicking on them, or by clicking the Data property button. We first assign the property. An editor will open where we can assign the field we use in each column, the type of text, whether we want the text to be able to fit in several rows, etc. We can also indicate whether we want the column to have a footer with a calculation based on the data in that column.

**Fig.80** Editing column table

Identifier Table003		
Layer Default		
X1 4,76 mm	Y1 16,40 mm	
X2 85,99 mm	Y2 66,94 mm	
Pen Width 0,10 mm	Color 	
Fill Color 	Alpha 255	Fill ☒
Width 81,23 mm	Height 50,53 mm	
Padding Horz. 0,00 mm	Padding Vert. 0,00 mm	
Data nutrientes 		
Grid Both	Fixed Size ☐	
Grid Width 0,10 mm	Grid Color 	
Show Title ☐	Title Height 0,00 mm	
Fill Color	Alpha 000	Fill ☐
Title		
Font Color		
Font Height 0,00 mm		
Font Name		
Bold ☐	Italic ☐	Underline ☐
		

Fig.81 Table properties

variedad	categoria	cajas	confección
Melocotón	I	40	Caja de cartón 5 Kg Alveolo 48
Nectarina	II	30	Bandeja plástica 2kg
		70	

variedad	categoria	cajas	confección
Albaricoque	Extra	25	Caja de madera 8 kg granel
Ciruela	I	35	Caja de cartón 6 kg alveolo 32
Paraguay	II	20	Bandeja plástica film 800 gr
		80	

Fig.82 Draw Table

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the Table	drawing units
x2,y2	x and y coordinates of the bottom right point of the Table	drawing units
width	width of the Table	drawing units
height	height of the Table	drawing units
Pen Width	Line border thickness in millimeters around the Table	always millimeters
Color	Line border color	

Fill Color	Color used to fill the background Table when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background paragraph with Fill color	
Padding Horz	Separating text from each cell rectangle to left and right	always millimeters
Padding Vertical	Separating text from each cell rectangle to top and bottom	always millimeters
Color	Font color used to draw the text	
Data	We select the detail data that is used to fill the table data. It will be an Array element that is included in the main Array in the case of a json, or a detail table of a Master-Detail relationship in the case of TDataSets.	
Grid	We indicate the style of the grid lines: do not show, vertical, horizontal or both.	
Fixed Size	We check the box if we want the table to maintain the design dimensions or to adjust according to the number of records in the table.	
Grid Width	Line thickness in millimeters used for grid lines in the Table	always millimeters
Grid Color	Grid lines color	
Show Title	We indicate whether we want to display a table title at the top	
Title Height	Height of the space we allocate to display the table title	
Fill Color	Color used to fill the background title when Fill property is true. Alpha property is used with this color	
Title	Text to display as table title.	
Font Color	Font color used to display the title	
Font height	Font height used to display the title	
Font Name	Font used to display the title	
Bold	We check it whether we want the title font to be bold.	
Italic	We check it whether we want the title font to be italic.	
Underline	We check it whether we want the title font to be underline.	

Table54 Table properties

16.26.RichText

Labelling

Flow Chart

CAD drawing

TEDWRichText is a text element that supports inline formatting tags. It is used when a single text block needs mixed styles (bold/italic/underline/strikeout), font changes, color changes, and per-line horizontal alignment.

Identifier RichText001		
Layer Default		
X1 73,29 mm	Y1 91,28 mm	
X2 151,87 mm	Y2 155,84 mm	
Pen Width 0,10 mm	Color 	Radio 0,00 mm
Fill Color 	Alpha 255	Fill ☒
Width 78,58 mm	Height 64,56 mm	
Padding Horz. 0,00 mm	Padding Vert. 0,00 mm	
Font 10,00 mm	Iterline 1,00	Color
Font Name Arial		
Bold ☐	Italic ☐	Underline ☐
Angle 0°		
Field	Format	
RichText sample		

Fig.83 RichText properties

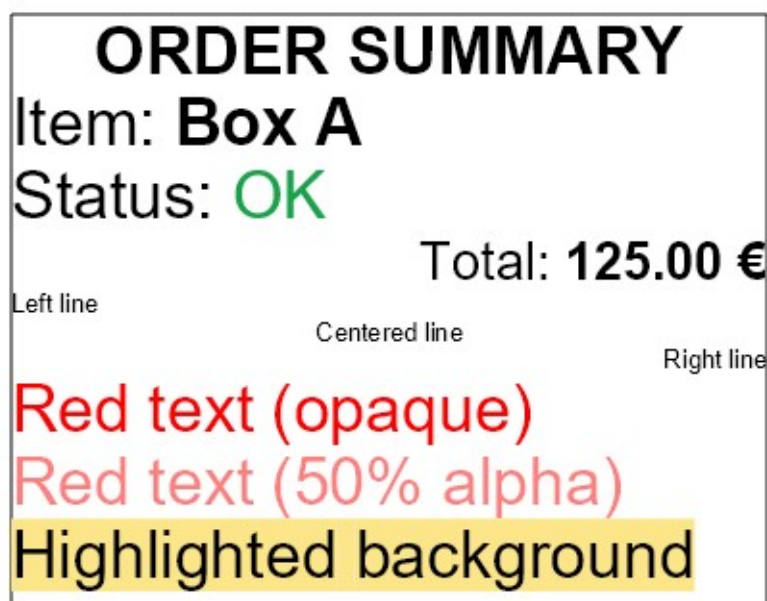


Fig.84 Draw RichText

The text notation to display this is:

```
<C><B>ORDER SUMMARY</B></C><BR>
<L>Item: <B>Box A</B></L><BR>
<L>Status: <FC:16A34A>OK</FC></L><BR>
<R><FS:8000>Total: <B>125.00 &,- </B></FS></R>
<FS:3800>
<L>Left line</L><BR>
<C>Centered line</C><BR>
<R>Right line</R>
</FS>
<FC:FF0000>Red text (opaque)</FC>
<FC:80FF0000>Red text (50% alpha)</FC>
<BC:FFFDE68A>Highlighted background</BC>
```

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the richtext	drawing units
x2,y2	x and y coordinates of the bottom right point of the richtext	drawing units

width	width of the richtext	drawing units
height	height of the richtext	drawing units
Pen Width	Line border thickness in millimeters around the richtext	always millimeters
Color	Line border color	
Angle	Rotate the text at 0-90-180-270 °	
Radio	When we display the richtext background rectangle (Pen Width > 0), we can indicate the radius of the corners of the rectangle	always millimeters
Fill Color	Color used to fill the background richtext when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background richtext with Fill color	
Padding Horz	Separating text from background rectangle to left and right	always millimeters
Padding Vertical	Separating text from background rectangle to top and bottom	always millimeters
Font Height	Text font height used by default, after you can change it with the <FS> tag.	always millimeters
Interline	Separation factor for text lines, default is 1	
Color	Font color used to draw the text by default, after you can change it with the <FC> tag.	
Font Name	We select the font type of the text from the list select by default, after you can change it with <FN> tag.	
Bold	Check the property if you want the text in bold by default, after you can change it with tag.	
Italic	Check the property if you want the text in italic by default, after you can change it with <I> tag.	
Underline	Check the property if you want to display an underline below the text by default, after you can change it with <U> tag.	
Angle	Rotate the text at 0-90-180-270 °	
Field	if the label is attached to a data (dataset, csv or json), we select the field to extract the formatted text.	
Format	if the label is attached to a data, and the field used is datetime or float, we can format the text output with this property. (For example, if it is a date type field, we can write dd-mm-yyyy, or if it is a float type we can write 0.00 €).	
Alignment	We can indicate the horizontal alignment (left, right or centered), or vertical alignment (top, center and bottom) of the text in relation to the insertion point, by default, after you can change it with <L>, <R> and <C> tags.	
Text	Click the button to open dialog box to write the formatted Text with tags.	

Table55 RichText properties

tag	description	notes
...	Bold on/off	Can be nested
<I>...</I>	Italic on/off	Can be nested
<U>...</U>	Underline on/off	Can be nested
<S>...</S>	Strikeout on/off	Can be nested
<FN:FontName>...</FN>	Font family	Example: <FN:Tahoma>
<FS:Size>...</FS>	Font size (internal units)	Integer value, example 3000 (3 mm)
<FC:Color>...</FC>	Font color	RRGGBB or AARRGGBB hex
<BC:Color>...</BC>	Background color	RRGGBB or AARRGGBB hex
<L>...</L>	Horizontal align left	Affects parsed segments in that block
<C>...</C>	Horizontal align center	Affects parsed segments in that block
<R>...</R>	Horizontal align right	Affects parsed segments in that block
 	Line break	Explicit new line marker
<NBR>	No-break marker (reserved)	Currently parsed as a no-op

Table56 Supported tags

Color format details

- If color has 6 hex digits (RRGGBB), alpha is forced to opaque (FF).
- If color has 8 hex digits (AARRGGBB), alpha is taken from the value.

```

<FC:FF0000>Red text (opaque)</FC>
<FC:80FF0000>Red text (50% alpha)</FC>
<BC:FFFDE68A>Highlighted background</BC>

```

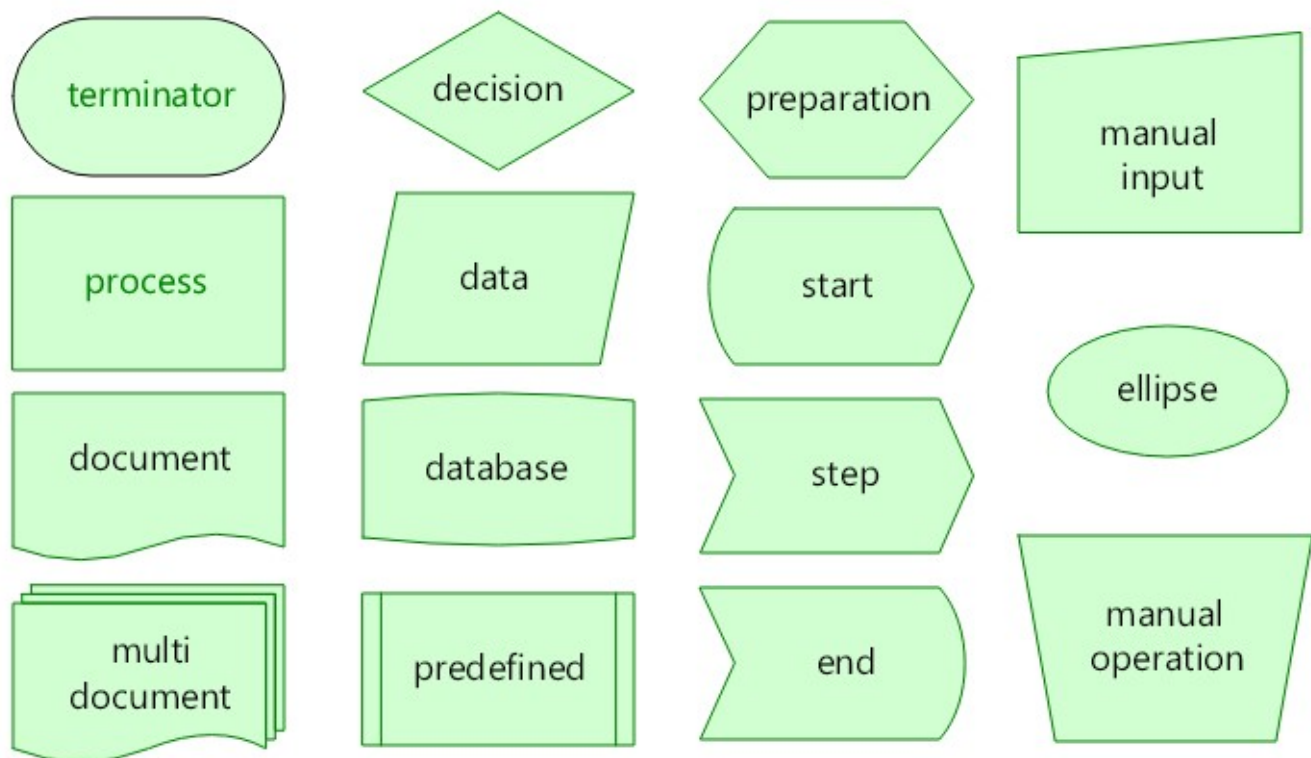
Important behavior notes

- CR/LF characters in source text are ignored by the parser. Use
 for explicit line breaks.
- Alignment tags change the segment alignment context until the corresponding closing tag.
- Unknown tags are skipped (not rendered as text).
- Best practice: use properly nested tags and matching open/close pairs.

16.27.Flowchart shapes

Labelling**Flow Chart****CAD drawing**

EmbedDraw VCL components work in three modes: label design, flowchart and technical drawing. Flowchart shapes are used in the second mode, which is the correct way to work, and although we can insert flowcharts figures and links in label mode or technical drawing mode, some features may not work such as rotating the element or scaling. These are the types of figures you can use in diagrams:

**Fig.85** Flow Chart shapes

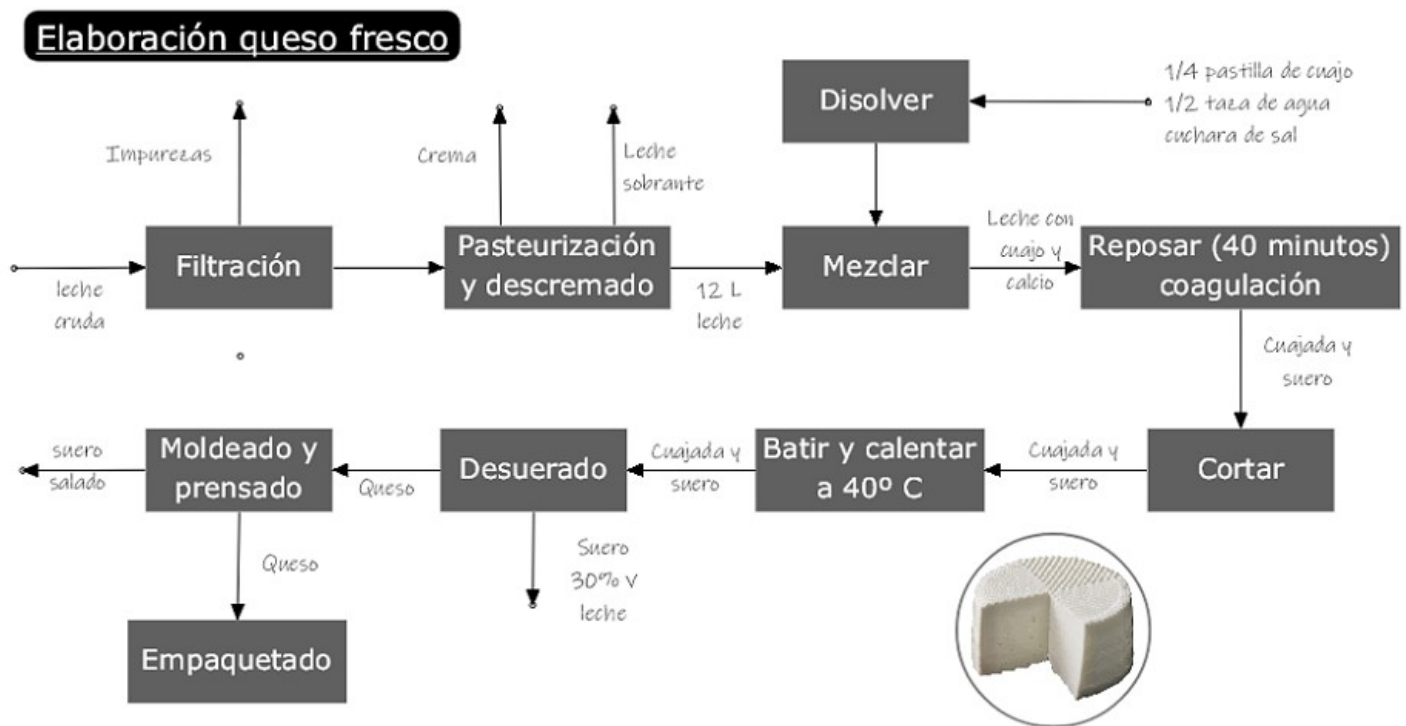


Fig.86 Flow chart sample

The various types of connectors have to be connected to two elements, that can be flowchart figures, the point, the image element or the symbols (they can be created by code and we can place link points for the connectors). When we use the image element, we have to configure the ImageFolder property of the EmbedDraw element, in this folder the images that we select to display in the image elements will be copied.

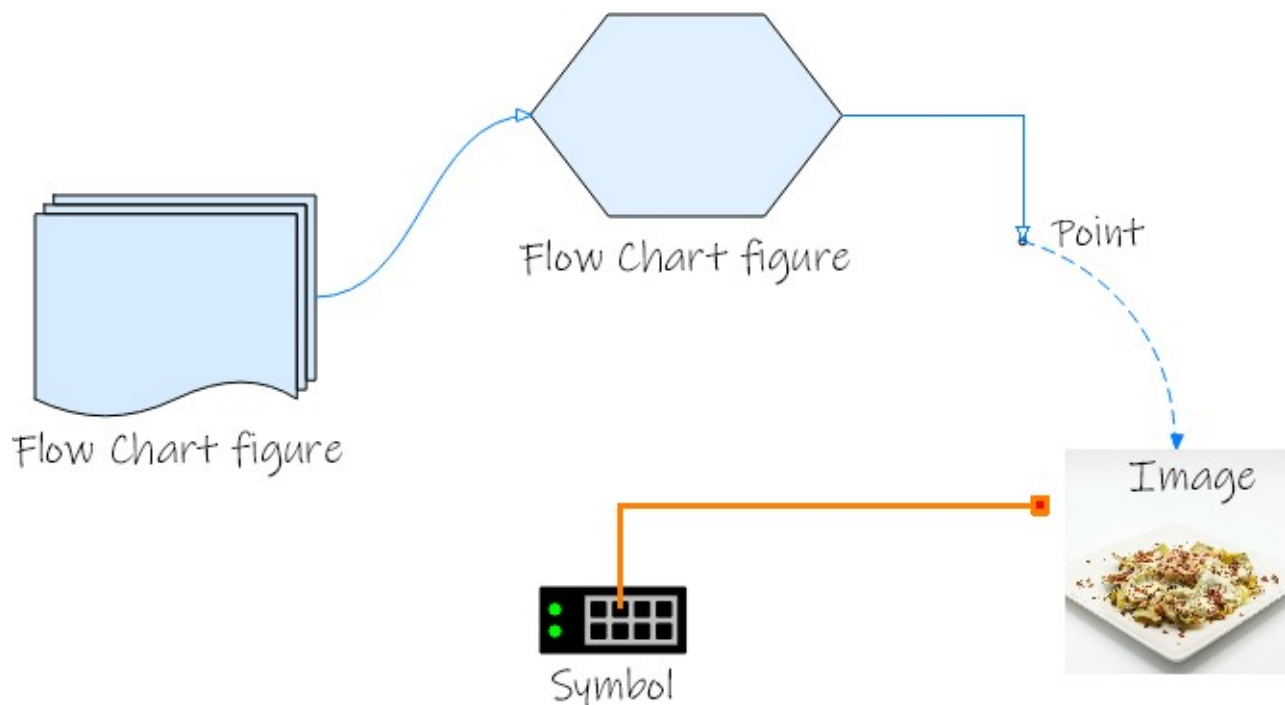


Fig.87 Elements that can be connected

Identifier FlowDiagram001		
Layer Default		
X1 90,75 mm	Y1 32,54 mm	
X2 138,64 mm	Y2 61,38 mm	
Pen Width 0,40 mm	Color 	Line Type 
Fill Color 	Alpha 255	Fill ☒
Padding Horz. 0,00 mm	Padding Vert. 0,00 mm	
Width 47,89 mm	Height 28,84 mm	
Font 10,00 mm	Iterline 1,00	Color 
Font Name @HP Simplified Hans		
Bold ☐	Italic ☐	
PLABEL VCL 3.0 Flowchart		

Fig.88 Flow Chart shape properties

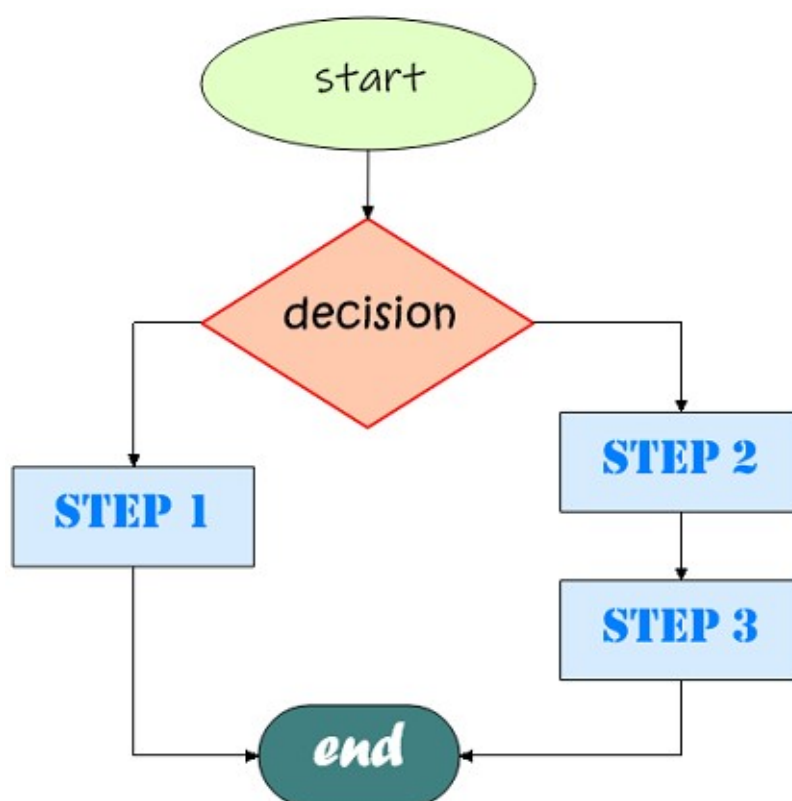


Fig.89 Draw Flow Chart

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
x1,y1	x and y coordinates of the top left point of the Shape	drawing units
x2,y2	x and y coordinates of the bottom right point of the Shape	drawing units
width	width of the Shape	drawing units
height	height of the Shape	drawing units
Pen Width	Line border thickness in millimeters around the Shape	always millimeters
Color	Line border color	
Fill Color	Color used to fill the background Shape when Fill property is true. Alpha property is used with this color	
Alpha	Alpha value assigned to the Fill color to apply transparency (0: full transparency, 255: no transparency)	
Fill	Check this property if you want to fill the background paragraph with Fill color	
Padding Horz	Separating text from shape borders left and right	always millimeters

Padding Vertical	Separating text from shape borders top and bottom	always millimeters
Font	Text font height	always millimeters
Interline	Separation factor for text lines, default is 1	
Color	Font color used to draw the text	
Font Name	We select the font type of the text from the list	
Bold	Check the property if you want the text in bold	
Italic	Check the property if you want the text in italic	

Table57 Flow Chart properties

16.28.Flowchart connectors

Labelling

Flow Chart

CAD drawing

To add a connector, we select the type we want and position the mouse over the insertion points of the figure, point, image or symbol. When we are over them, a mark is activated indicating that we can click the mouse, then we do the same with the second point.

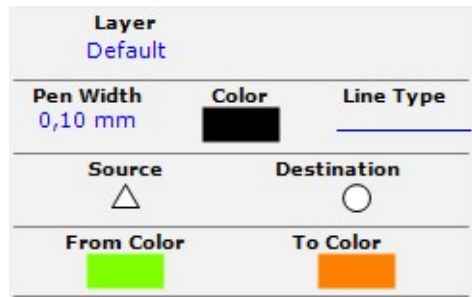


Fig.90 Link properties

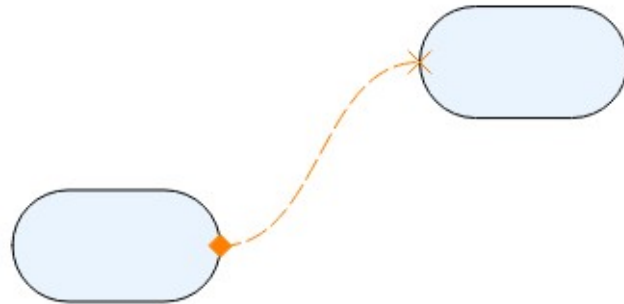


Fig.91 Draw Link

property	description	units
Identifier	We can assign an identifier to each element of the drawing, we can use it to search for elements in the drawing or label it when we save as SVG.	
Layer	In the drawing we can define one or more layers that serve to organize the elements of the drawing. By default there is one layer, the elements that we insert do so in the layer marked as active, the layers can be marked as not visible, not printable or not selectable.	
Pen Width	Arc line thickness in millimeters	always millimeters
Color	Arc line color	
Line Type	line stroke style used, we select from a list of predefined styles	
Source	We can indicate a figure to draw at the start point of the link.	
Destination	We can indicate a figure to draw at the end point of the link.	
From Color	Color used to fill the figure assigned at first point	
To Color	Color used to fill the figure assigned at end point	

Table58 Link properties

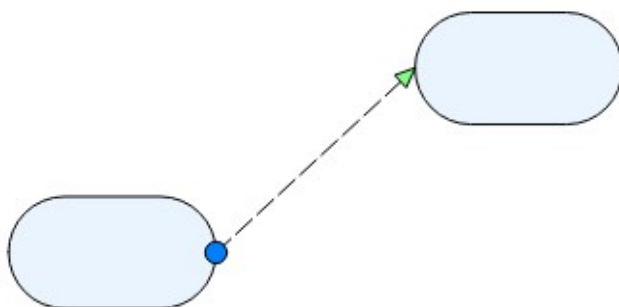


Fig.92 Direct Link

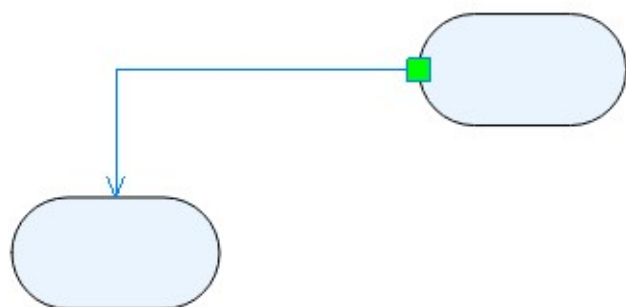
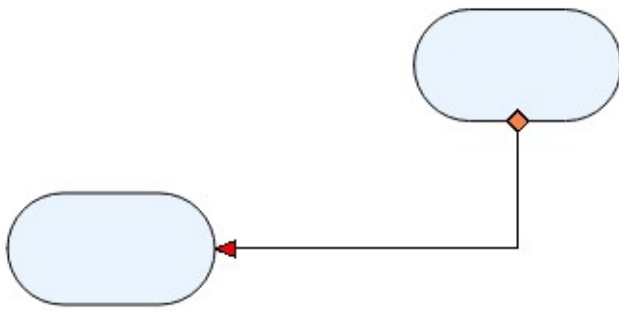
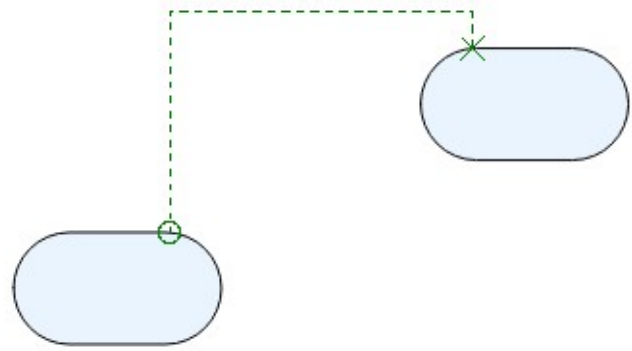
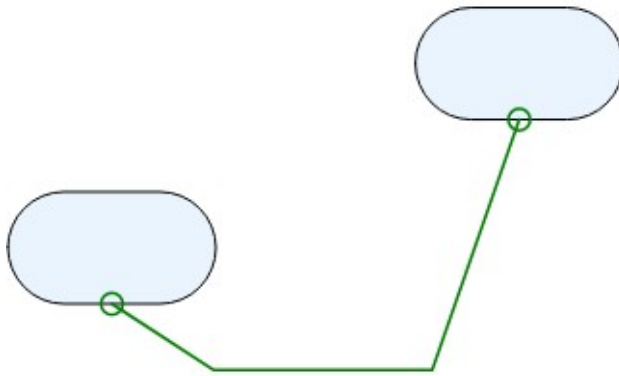
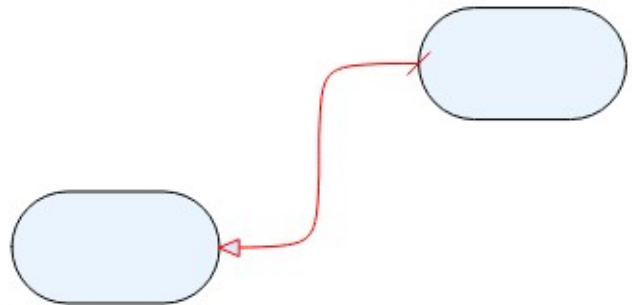
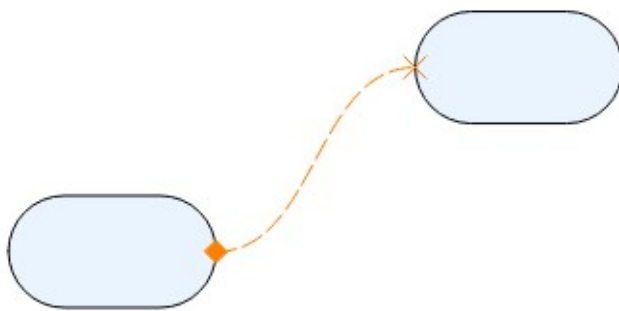
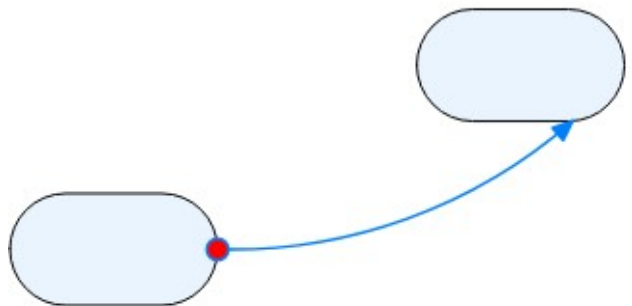


Fig.93 Left - Right / Top - Bottom link

**Fig.94** Top - Bottom / Left - Right link**Fig.95** Two step Link**Fig.96** Polyline link**Fig.97** Round courner link**Fig.98** Curved Link**Fig.99** Arc link

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