(A) How to use the application

(■) Tips:

- Double-click mouse on background to create new text box
- Hold Right-mouse button on a text box then drag (still holding mouse's right button) to create a new connected text box
- To quickly create a new connected smart line, hold ALT key then drag mouse
- When a text box is selected, press ENTER or SPACE or double-click mouse to edit text content
- When a bold line is selected, double-click mouse on bold line item to change arrow shape
- To switch shape type, please use menu item from right-mouse-click context menu
- Press Cmd+T to move, resize, rotate simultaneously all selected items as a group
- Hold ALT key to create a new line
- Hold OPTION(ALT) and scroll wheel: to zoom
- To print, export with grid line, go to Preference dialog then enable [Print with grid line] checkbox
- To create a new custom shape type, click on button [Design new] on the [More shapes] window
- Click [?] button on the top-right of the window for more help

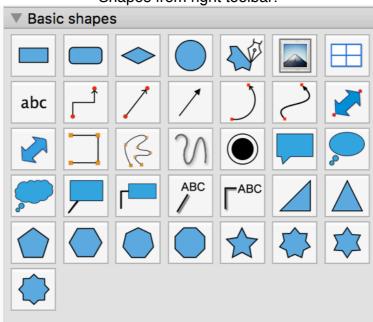
(■) Default Hot Keys:

- -Hot key 'v' or ESC: to switch to select mode
- -Hot key 'f': to modify shape of selected item
- -Hot key 'm': to move items
- -Hot key 'e': to add current active shape
- -Hot key 'b': to add a rectangle item
- -Hot key 'r': to add a round-box item
- -Hot key 't': to add a text item
- -Hot key 'c': to add a curved polyline
- -Hot key 'I': to add an arrow line
- -ENTER or SPACE : to open text edit dialog
- -SHIFT and arrow keys: to move selected items with longer distance
- -CONTROL and drag mouse: to create a new line
- -Right-click mouse then drag: to create a new attached line from a box or shape object

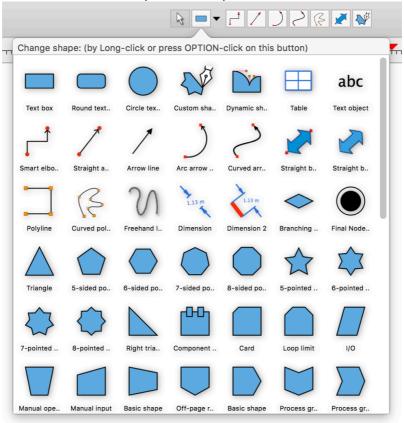
(■) Support objects:

a - Basic shapes: shapes on the right toolbar of the window
(with this toolbar, you could add lines, polyline, text box, rectangle box, circle, callout box....)





Shapes from top toolbar:

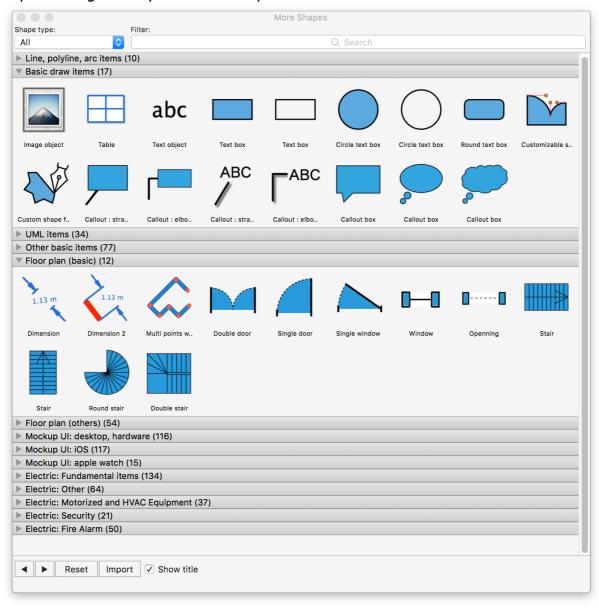


NOTE: double click on a shape button to let you create many more shape one after another. (press "v" or ESC to return to select mode)

b - More shapes object: click on this button to show "More shapes" dialog



"More shapes" dialog allows you to add many more items into the documents:



c - Symbol objects:



Click on this icon, following dialog will be shown to let you add symbol object to your diagram (there are more than 2000 items)



d- Clipart objects:



Click on this icon, following dialog will be shown to let you add more clipart object to your diagram



e - Image object:

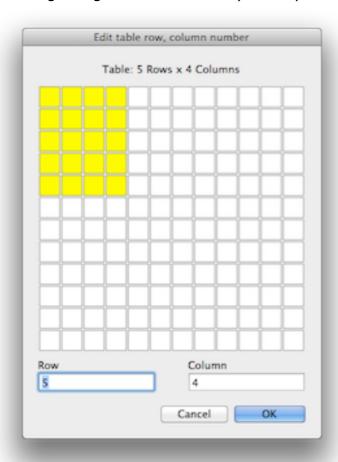
Please do as following: click on this button, draw position of image shape on the view, then select image file



f - Table object:



After set object location, following dialog will be show to let you setup table rows, columns number

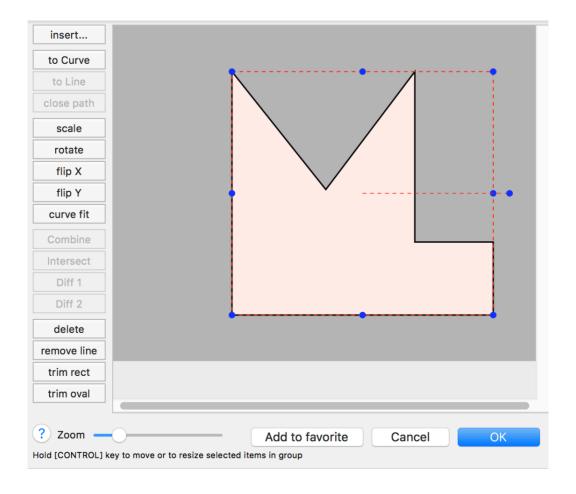


(■) Edit shape/appearance of an object: (shortcut key: f)

First select the object then press following button on the "Modify functions" group:



Following window will be shown for you to edit/customise the shape:

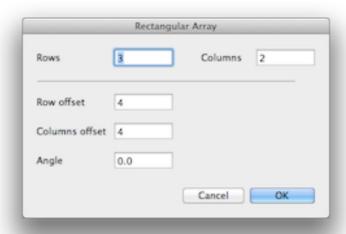


(■) Rectangular Array copy:



The Array button function makes multiple copies of selected objects in a rectangular matrix (columns and rows) pattern. It has a dialogue box driven with the option to see a preview of the array before it is created. The resulting array is, therefore, always created with the original object in the top left hand position with respect to the current co-ordinate system. To make rectangular array, please do as following:

- An array setting dialog will be shown to let you change setting of new creating array



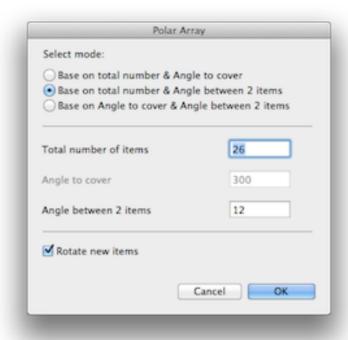
- When you change array setting in this dialog, in the drawing window, sample preview of new objects also is displayed in red line color. To finish please press OK button.

(■) Polar Array copy:



The Polar Array button function makes multiple copies of selected objects in a polar (circular) pattern. It has a dialogue box driven with the option to see a preview of the array before it is created. The polar array works in a similar way to the rectangular array. The main difference is that rather than specifying the number and offset for rows and columns, you must specify a centre point and the total number of objects in the array (including the original object). To make polar array, please do as following:

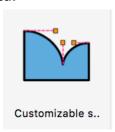
- Using mouse to select the point of the polar array
- A Polar Array setting dialog will be shown to let you change setting of new creating array



(■) To draw a Custom object

Custom object is object that allow you to customize shape of it. You also can save a custom item into template list to reuse it later.

To add and edit a Custom Object: drag "Custom" button from "More shapes" dialog into the view area.



After Custom Object was placed into the view, you will need to double click on the Custom Object to start edit the shape of the object:

Below are tips to edit shape of the object (in **Custom Object Edit mode**):

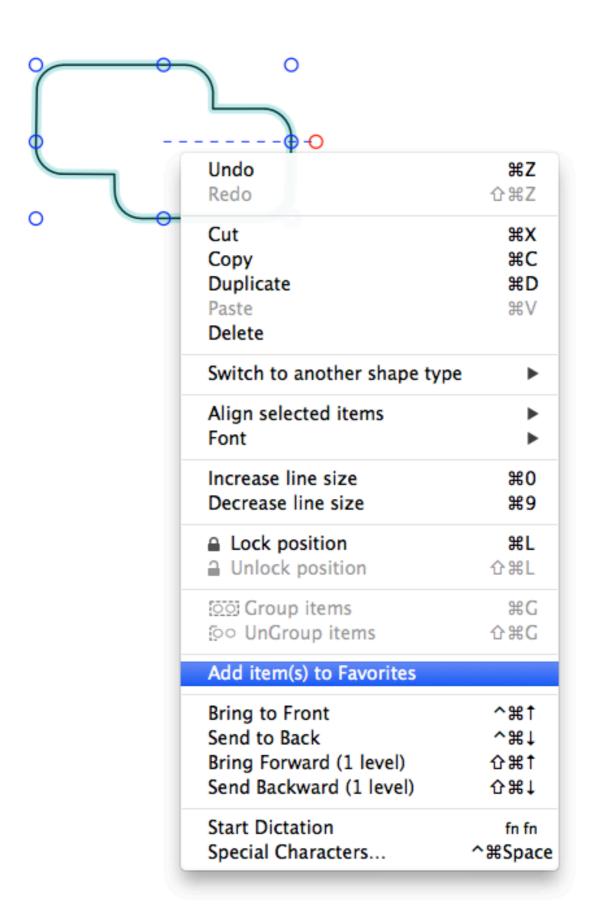
- + Single click on a line and drag to move the line position
- + Single click on an intersection point and drag to move the intersection point position
- + Double click on a line to add a new intersection point

- + Double click on an intersection point to remove the intersection point
- + Use mouse to drag an area to select lines within the selected area (the selected line background will turn red) then use controls on the top of the window to change line setting (width, dash, color...)
- + To change a straight line to curved line and vice versa, select line (the line background will turn red) then right click mouse to show an action menu, from this menu choose appropriate menu item to convert to curved or straight line.
 - + If you want to disable line (not drawing it): select the line then press "Delete" key
- + To copy properties of one line to other lines: select the old line, press "CMD + C" en select other lines and press "CMD + V"
- + To change text content inside of the Custom Object: input new content into the "Text Editing dialog". ★Note: special text "%area%" is used to represent area size information
 - + Click outside of the Custom Object to quit **Custom Object Edit mode**

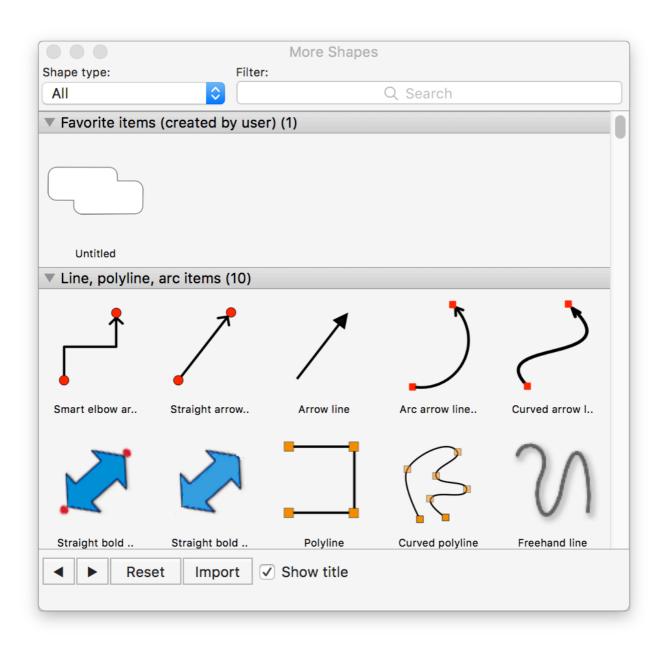
(■) Save an image, Custom item, or items into "Favorite" list to reuse later

When you want to save current selected items to reuse in other diagram, please do as following:

- select items or an image item or an Custom shape item
- mouse right click
- select menu item "Add item(s) to Favorite"

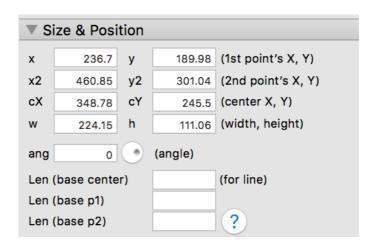


After that, in "More shapes" window, above item(s) will be saved and shown. Later you could reuse it to draw into any other diagrams.



(■) How to set objects' location, size:

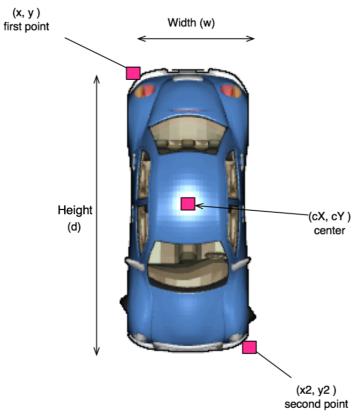
To set object's location, size, other than using mouse to drag them, you could also input direct value by entering value into "x", "y", "centerX", "centerY", "width", "height" text boxes on the Right of the editing window:



After enter new value, please press **ENTER** key.

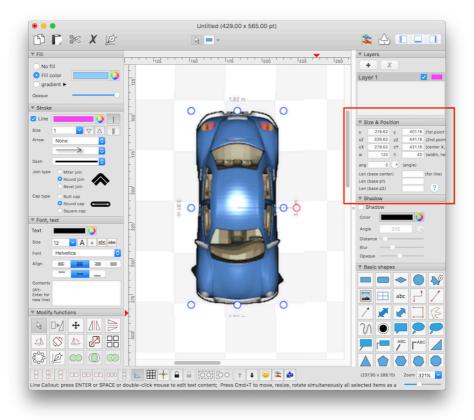
A shape item has following size properties:

+ Size, position in canvas view:



To change position, size of any item you could edit its size, position properties on the main document

window as following

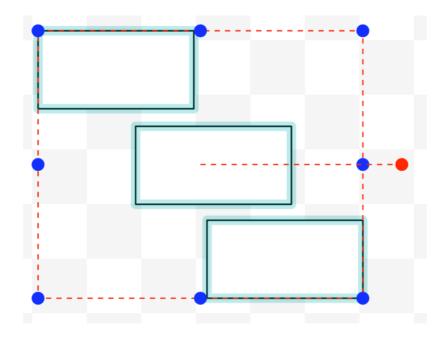


(■) How to select multi objects:

Select multi objects is like in AutoCAD, please do as following:

- + drag mouse from left to right to select all object that lie totally inside the selected drag rectangle area.
- + drag mouse from right to left to select all object that is inside or cross the select rectangle area

After that, you could resize or rotate multi objects at the same time as below:

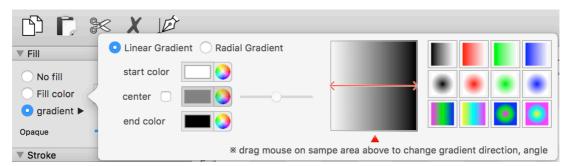


(■) Fill setting of a shape:

A shape object could has following fill setting:

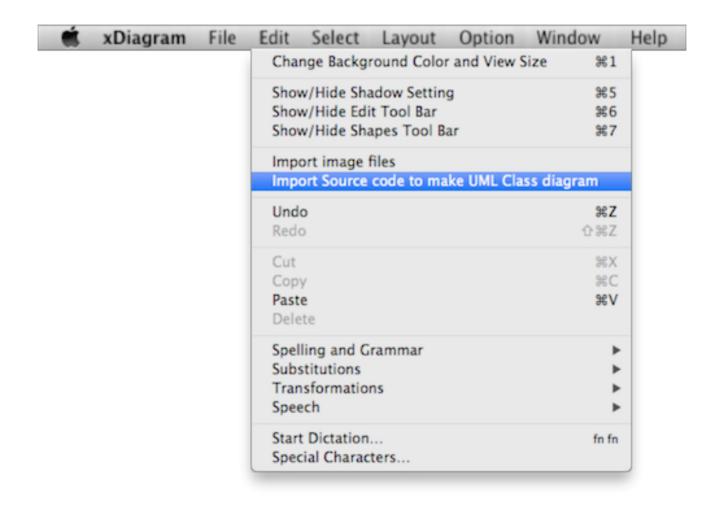
- no fill
- solid color
- gradient fill

To change fill setting, please use following controls in the Left toolbar:

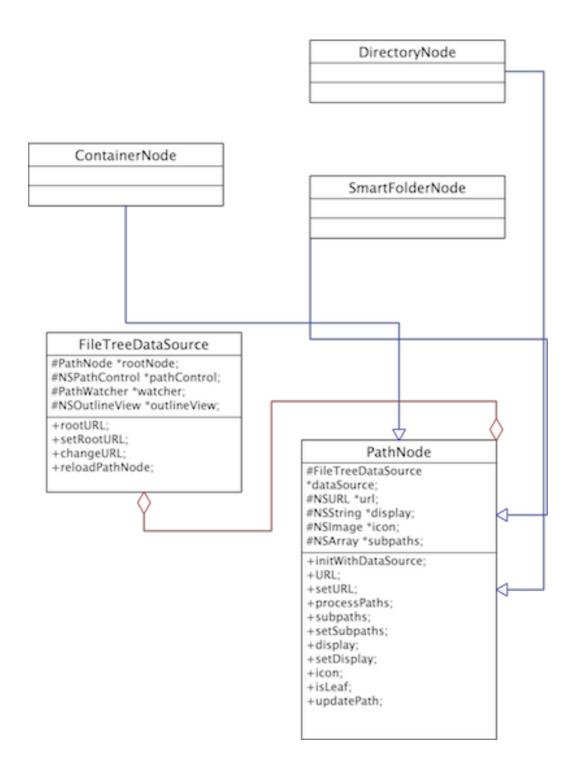


(■) Import "Objective C / C++ / Java class source":

You could import "Objective C / C++ / Java class header files" into the application to automatically create class diagram:



- in "File" menu, select "Import Source code to make UML Class diagram" menu item, then select your source code files/folder
- class diagram will be created as following:



(■) Import to image files:

to import image file into the draw view you could do as one of following methods:

- in "Edit" menu, select "Import image files" menu item, then select your image files
- drag image files directly into the drawing view
- drag image files into this "application icon"
- if your image was copied into clipboard, in the application, simply press key "CMD + V" or click on "Paste" button

(■) Export to image:

After designing, to export to image file, please press "CMD + E" key to export to PDF, JPEG, PNG...

Note: When you design a large scale diagram (example: "400 ft" \times "400 ft", please do as following to make the export process faster:

- Reduce length scale (example: in Preference dialog, set 1 feet = 1 to 10 pixel only)
- Export to PDF file (export to PDF is often faster than to JPEG or PNG...)
- If you want to export to JPEG image with large diagram, please export with small zoom setting as following:
 - + zoom the view to 20%
 - + select menu "Export with current Zoom"

(B) Line object

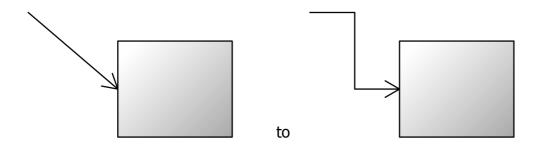
(■) Type of line objects

There are following types of line in the application:

a - Normal Smart line: this line could attach to another box object.



Double click on line object will change it from "Straight line" to "Elbow line" and vice versa:



b - Bold Smart line: this line could attach to another box object, and it has bigger size than "Normal Smart line".



User could double click on this line to change the way it will be shown as following:



c - normal non-smart line: this line does not support auto-attach function likes above lines:



d - polyline lines:

: when creating this, click mouse on each point of the view to make a polyline. To finish, press **ENTER** or **SPACE** or **ESC** key.



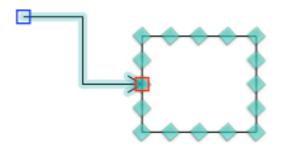
: when creating this, click mouse down on one point then click mouse up in another $% \left(1\right) =\left(1\right) \left(1\right$



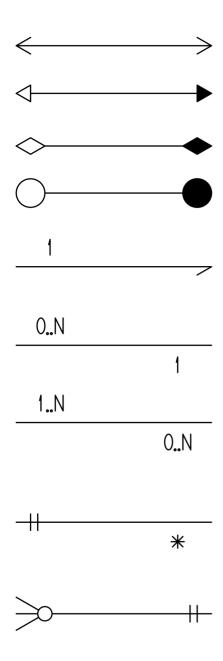
: when creating this, click mouse and drag mouse continuously.

(■) To attach a line to an object (only for Normal Smart line and Bold Smart line)

Use mouse to drag a vertex of the line then attach it to any "diamon shape" of other object:



(**II**) Type of arrow for Normal lines (does not apply to polyline or bold-line)
Using Arrow Combo box on the top toolbar, user could change type of arrow of a normal line Sample:



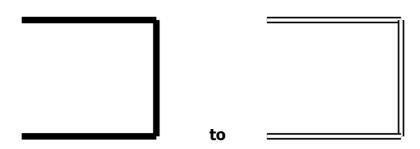
(■) Line with white color inside

Using following control on the top toolbar, user could change a normal line into line that has white color inside it

Control to change line's inside color:



Sample:



(C) Polyline object

(■) Type of polylines:

: when creating this, click mouse on each point of the view to make a polyline. To finish, press **ENTER** or **SPACE** or **ESC** key.



: when creating this, click mouse down on one point then click mouse up in another $\ensuremath{\mathsf{I}}$



: when creating this, click mouse and drag mouse continuously.

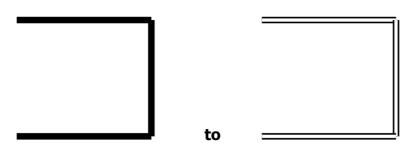
(■) Line with white color inside

Using following control on the top toolbar, user could change a normal line into line that has white color inside it

Control to change line's inside color:

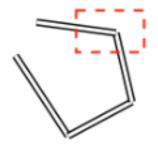


Sample:

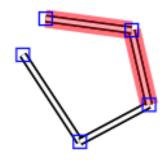


- (■) Select and move a single line in the polyline: you could click on the line or use mouse to draw a rectangle that cross the line to select it. After being selected, lines of the polyline will turn red. o Drag mouse from left to right to select all object that lie totally inside the selected drag rectangle area
 - o Drag mouse from right to left to select all object that is inside or cross the select rectangle area

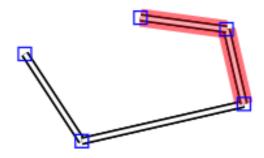
Sample: line before selected



Line after selected:



- (■) **To move all polyline**: to move all polyline at once please drag selected lines and move while pressing key "COMMAND" or "CONTROL"
 - **(■) To move only selected lines**: to move only selected lines please do as following:
- Select lines (see above)
- use mouse to drag selected (red) lines to move them Sample of selected lines are move (refer to above item)

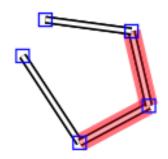


(■) To move selected lines in horizontal or vertical direction only:

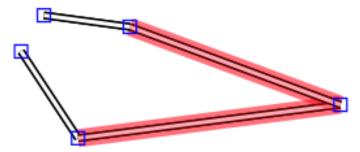
while dragging selected lines, press key "SHIFT"

- **(■) To move a vertex**: to move a vertex of the polyline please do as following:
- Select the polyline
- use mouse to click and drag a vertex (intersection dot with blue rectangle)

Before change:

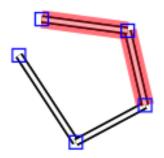


After drag and move the vertex:

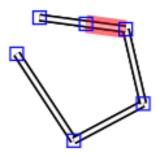


(**I**) To create new vertex from a line in the polyline: double click on the line to create a new vertex (intersection dot) in the middle of the line:

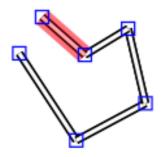
Before change:



After double click on the line to create a new vertex:

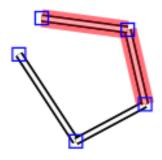


Resize the new vertex:

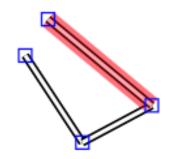


(■) To delete an old vertex in the polyline: double click on the vertex (intersection dot) to remove it from the polyline:

Before change:



After double click on the vertex to remove it:



(D) Custom shape edit

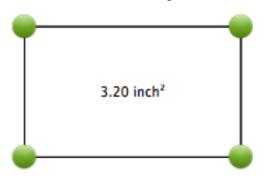
To edit a Custom object, you must double click on it to enter CUSTOM EDIT MODE.

(■) Start create a Custom shape object:

click on following button on the "More shapes" of the window then drag into the draw view.

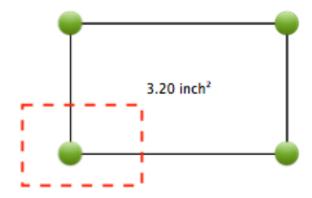


(■) Start edit Custom item - start CUSTOM EDIT MODE: to start editing a Custom item, double on it to change to CUSTOM EDIT MODE, in this mode you could add vertex, remove vertex, resize lines.... and the object will be shown as following:

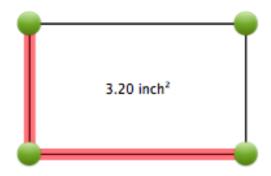


- (■) To exit CUSTOM EDIT MODE: click outside of the Custom object to quit CUSTOM EDIT MODE
- (■) Select and move a single line in the Custom: you could click on the line or use mouse to draw a rectangle that cross the line to select it. After being selected, lines of the Custom will turn red. o Drag mouse from left to right to select all object that lie totally inside the selected drag rectangle area
 - o Drag mouse from right to left to select all object that is inside or cross the select rectangle area

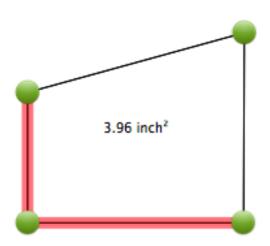
Sample: lines before selected



Lines after selected:



- **(■) To move only selected lines**: to move only selected lines please do as following:
- Select lines (see above)
- use mouse to drag selected (red) lines to move them Sample of selected lines are move (refer to above item)

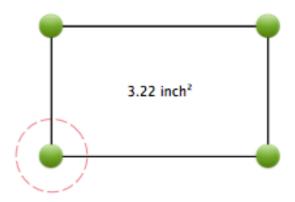


(■) To move selected lines in horizontal or vertical direction only:

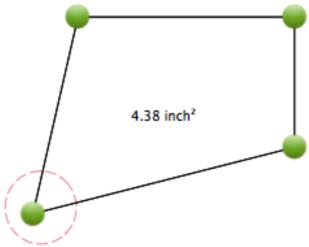
while dragging selected lines, press key "SHIFT"

- **(■) To move a vertex**: to move a vertex of the Custom please do as following:
- Select the Custom
- use mouse to click and drag a vertex (intersection dot with blue rectangle)

Before change:

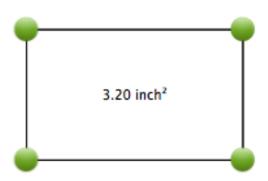


After drag and move the vertex:

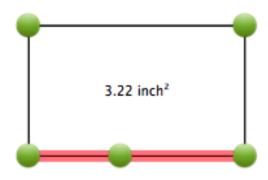


(**I**) To create new vertex from a line in the Custom: double click on the line to create a new vertex (intersection dot) in the middle of the line:

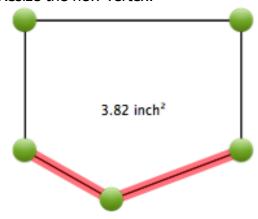
Before change:



After double click on the line to create a new vertex:

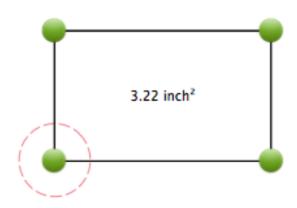


Resize the new vertex:

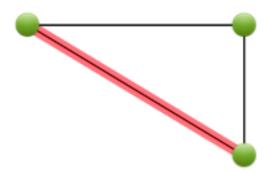


(■) To delete old vertex in the Custom: double click on the vertex (intersection dot) to remove it from the Custom:

Before change:

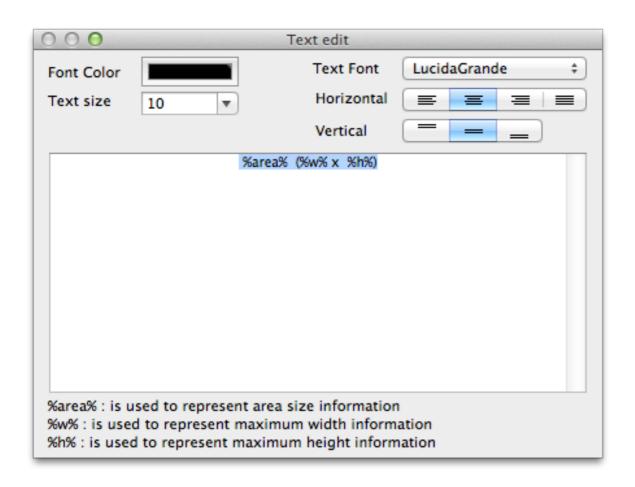


After double click on the vertex to remove it:



(**I**) Edit text content - Show measure information:

In CUSTOM EDIT MODE mode, following window also will be shown to let user edit text content inside the object

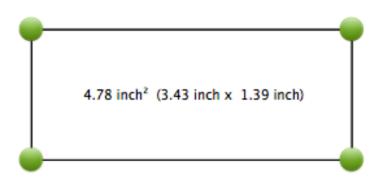


Text content of custom object support special "string" to let it show more measure information:

%area%: is used to represent area size information %w%: is used to represent maximum width information %h%: is used to represent maximum height information

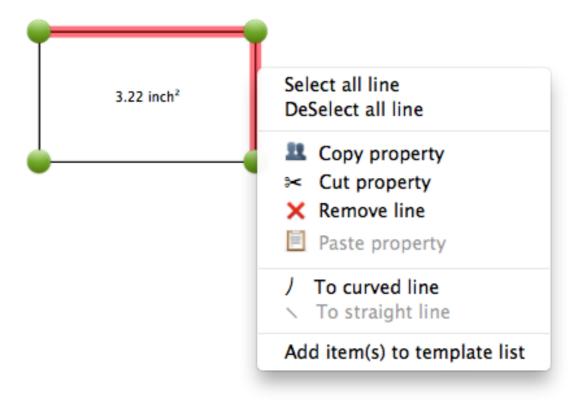
Example:

When text value is " %area% (%w% x %h%)", the custom object will be shown as following



(■) Other options to edit selected lines - lines (in red color):

In **CUSTOM EDIT MODE**, select lines then right click on one of them to show editing menu as following:



Using this menu, you could:

- Hide lines (by select "X Remove line" menu)
- to copy-paste line properties.
- change it from curved lines to straight lines (and vice versa)
- save custom item into Saved block (template list) to reuse later

(■) To change a straight line to curved line and vice versa:

select line (the line background will turn red) then right click mouse to show a action menu, from this menu choose appropriate menu item to convert to curved or straight line.

- (■) **To Disable a line:** if you want to disable line (not drawing it): select the line then press "**Delete**" key
 - (■) To copy paste properties of line: to copy properties of one line to other lines:

In CUSTOM EDIT MODE:

- select the old line
- press "Cmd + C"
- select other lines
- press "Cmd + V"

(■) Change color, line type of selected lines in the object:

Use mouse to drag an area to select lines (lines) within the selected area (the selected line background will turn red) then use controls on the top of the window to change line setting (width, dash, color...)