ARCHICAD ICON STYLE GUIDE 2016



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INTRODUCTION

Dear Reader,

The purpose of this Icon Style Guide is to list and detail all the rules that we have established for ARCHICAD 20's new look and to cover how we work when we design icons for the new UI.

This document is a handbook for both GRAPHISOFT's Product Designers and ARCHICAD Add-On manufacturers to help maintain a consistent visual appearance for the icons in our products that we want to reserve in the future.

To understand all important aspects of this document, you should read it sequentially. Do not skip any section!

We included a lot of examples and explanatory texts in all sections. Refer to it whenever you are in doubt!

Examine all the descriptions and supplementary material to understand the correlation between the different sections.

Even though ARCHICAD is incredibly diverse, from dialogs to palettes and toolbars, we always apply consistent design principles as described in the following pages.

Enjoy



HOW TO USE THIS DOCUMENT

Step 1:

Get an overall view by going through the PRINCIPLES.

Step 2:

Learn the style related rules for different attributes such as colors, fills, etc. by using the STYLE GUIDE MANUAL.

Step 3:

Choose your tool, set up your work environment and learn the necessary tools by using the TOOL MANUAL.

Step 4:

Learn the system side requirements such as location(s) and size by using the ARCHICAD STANDARDS.

Step 5:

Create your icon by using the STEP BY STEP TUTORIAL.

If needed, use existing elements from the ASSET LIBRARY.

Step 6:

Check and save your work by using the SAVING AS SVG TURORIAL.



Step 1:

PRINCIPLES

Get an overall viewof the fundamental visual guiding principles for ARCHICAD icons.



USERS

Your primary consideration should always the User!
Design your GUI elements by finding out what they want to do in that particular UI and then create your icons so they can carry out that task as quickly as possible!

For example:

A complex feature, guided by rigid technical rules may look really complicated and hard to understand.

Perhaps some friendlier, easy to understand design would be more appropriate for new users who aren't quite familiar with ARCHICAD.









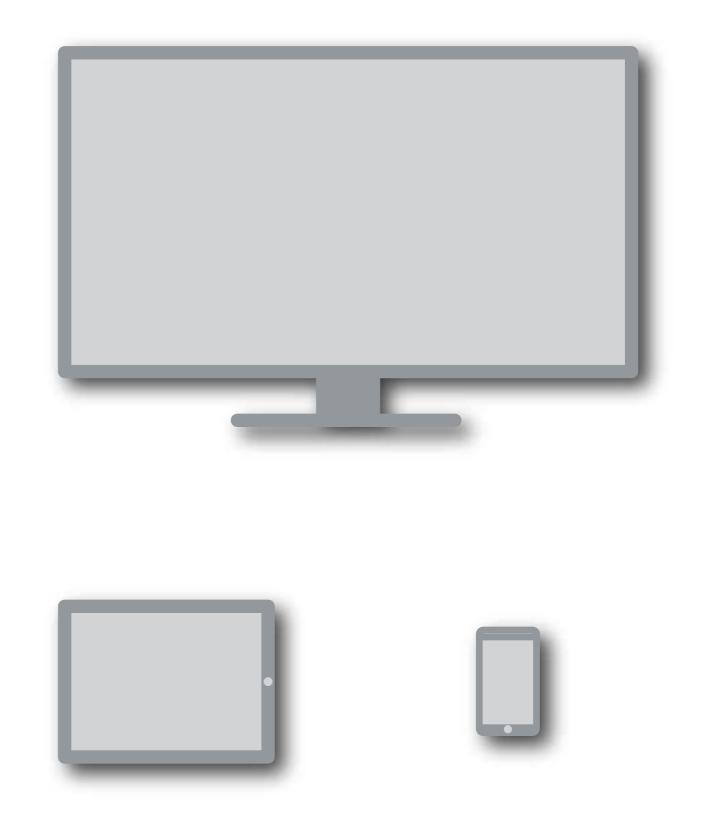
ENVIRONMENT

Environment refers not only to the platform (PC, Mac) you design for, but also how it will be operated and the physical space that it will be used in.

For example:

Monitors (ARCHICAD) have a completely different set of variables compared to mobile phones or tablets (BIMx, BIMcloud Manager). They are viewed from a different distance, almost always used indoors, and operated without touch.

This in turn means different considerations for things like size, ratio and graphical contrast within the icon.



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COPY AND PASTE

What you say in your design is just as important as how it looks. It is important to keep stlye as consistent as possible! A good copy of used GUI elements can not only make ARCHICAD easier and quicker to understand, but also gives it personality through the tone of voice used.

Speaking to people like human beings, rather than machines, creates an emotional link that results in a better UX.

For example:

Feel free to copy and paste existing elements. If you want to say 'Add', than use the 'ASSET LIBRARY' as a source. Do not invent what already exists!



NEW

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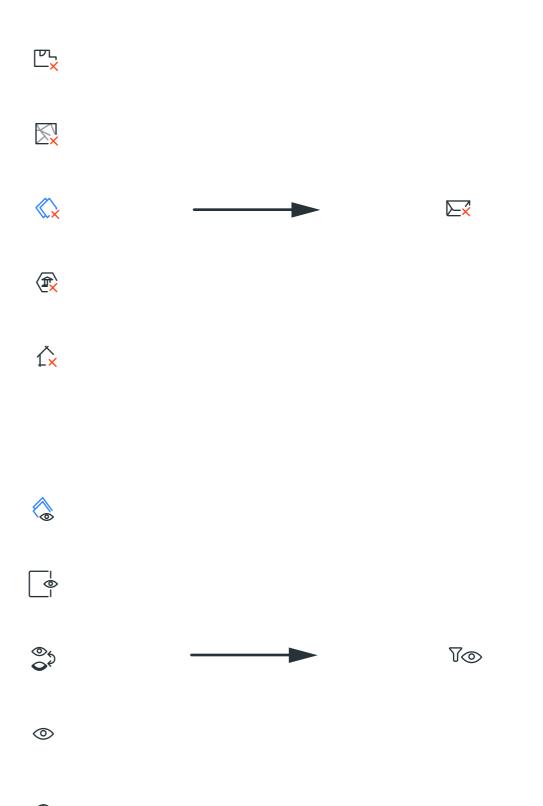
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WORKING WITH COLOR AND SHAPES

Certain colors and shapes have become synonymous with specific meanings in UX design. Be mindful of these norms, as mixing them up can cause confusion for users.

For example:

Green and checkmarks are commonly used to indicate good, while red and X marks are bad, but jumbling the two up creates a mixed message. Similarly, yellow and triangles are often associated with warnings, and black and circles with info.

DON'T DO THIS! DO THIS! IT'S NAUGHTY! IT'S NICE! WARNING (!) (i)i INFO DELETE **777** (Data loss) REMOVE Ĉ× FROM

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FONT AND TYPOGRAPHY

Lots of information is conveyed through text, so letters are also important in UX. Apply the same principles for a good design:

- Make it easy to read!
- Make enough space around it!
- Use the DIN Pro Regular Font!

Follow these steps to create text:

- Use 'Outline Stroke' to make the desired text vectorized!
- Add 0.5 px as the line's weight!
- After outlining, align path to grid vertically and each letter horizontally!

(Object > Path > Outline Stroke)

NAUGHTY

NICE









1:1 3:1



abcdefghijklm nopqrstuvwxyz 0123456789

- This is how a text looks like using the DIN Pro Regular font.
- 2. This is how it looks like after appling the 'Outline Stroke' effect, adding 0.5 px as stroke's line weight and aligning the path to the grid vertically.
- 3. And this is it, with all the letters aligned.

GRAPHISOFT

10111213

141516

171819

ALIGMENT

Besides getting everything sharp, the other very important aspect for pixel perfection is making sure the alignment is right.

For example:

Use graphical alignments that helps the viewer quickly identify and understand what an icon means.

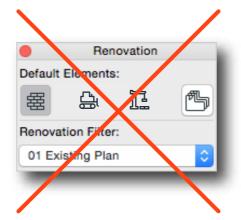
SPACING

Use icon spacing on the UI that communicates hierarchy and group the functions by type to help the user orientate.

















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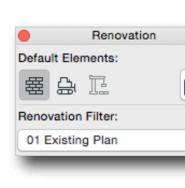
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1:1 3:1



Margins and placement of common GUI elements such as 'Settings', 'Teamwork Reserved Status' or a 'Pen' should be the same through out the interface to prevent objects from jumping around.

For example:

Follow what is in the 'Asset Library', and copy existing elements which can be used throughout several icons.













CLARITY

Keep icons as clear as possible to avoid overloading the user with too much content or useless information.

You can do this by following 'Form Follows Function' rule.

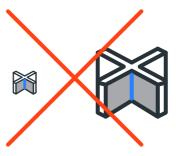
For example, use only one of the following at a time:

- distinguishing mark,
- highlight color,
- dashed line (type),
- special color,
- strokes or fills,

Do not change the original metaphor but try to be creative!

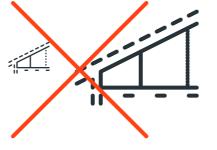
NAUGHTY

NICE



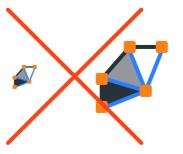
















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1:1 3:1

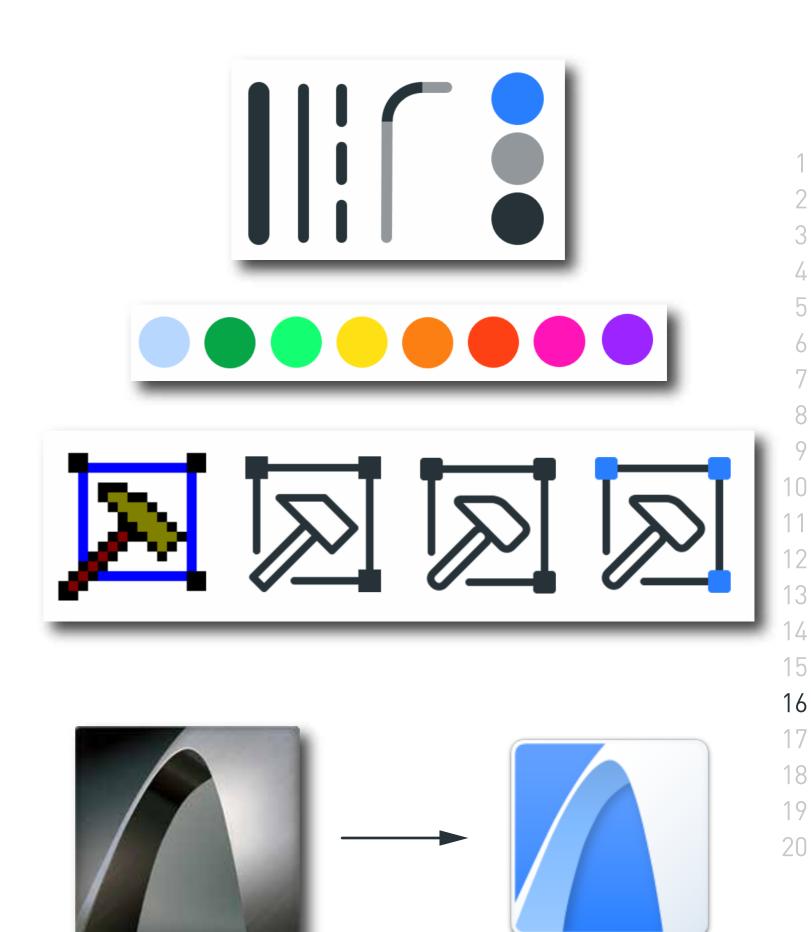
1:1

3:1

CLARITY

Following this idea we decided to designed a new style based on 3 linetypes, 3 basic colors and a rounding effect. Colors and lines help to express the functionality, while rounded corners help to achieve friendy and uniform look.

At the same time, we realized that colors are important, but too much color can go against a clean look. To avoid a coloring book effect, we decided to use only one blue accent color to highlight a function most of the time. Other colors are used for specific functions like red for indicating deletion or green for new elements in Teamwork.



Step 2:

STYLE GUIDE MANUAL

Learn the style related rules for the different attributes such as colors, fills, etc.



FILL

- Keep all the icons hairlined!
 Use fills only if it is a must,
 especially if you design a
 menu icon (inverse effect
 on Mac).
- If you may find it necessary to use fills anyway, than keep it simple! Draw them with a stroke weight line 1-2 px and avoid fills that are too large.

NAUGHTY



NICE



1:1

3:1

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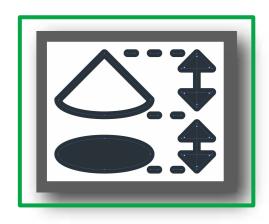
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No stroke, only fill.



Stroke with fill.

STROKE

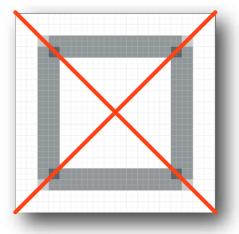
- Stroke reference line has to be aligned to middle!

(Window > Stroke > Align stroke)

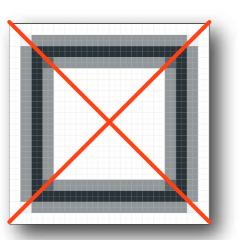
- In case of a 1 px line, the reference line has to be in the middle of a pixel!
- In case of a 2 px line, the reference line has to be on the pixel grid!

NAUGHTY





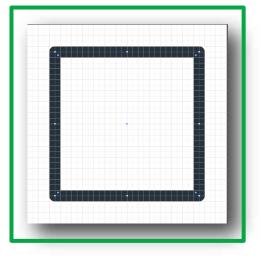
1 px stroke not aligned on grid



2 px stroke not aligned with grid



NICE



1 px stroke aligned on grid

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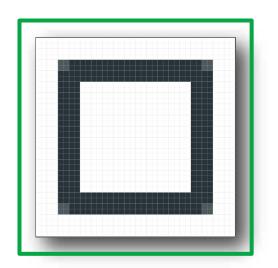
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2 px stroke aligned with grid

- Use fillet for line ends. Always make them rounded!

(Window > Stroke > Cap/Corner)

- For larger elements, use enhanced fillet with effect! Always set radius to 1 px!

(Effect > Round Corner)

NAUGHTY NICE Comez: Corner: 10:1 10:1 Round Corners Radius: ‡ 1 pt OK Cancel

10:1

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10:1

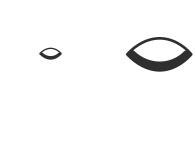
- Draw lines only with 1 or 2 px weight!
- Use thin lines with a weight of 1 px as an average!
- Use thick lines with a weight of 2 px to emphasize!
- Keep it simple! Avoid mixing up line weights!

DASHED LINES

- Dashed/dotted lines can be horizontal, vertical or slanted.
- They have to be drawn 'by hand' and fixed to grid!
- No golden rule just make it easy to read!







NICE

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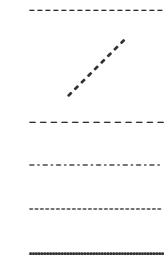
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1:1 3:1

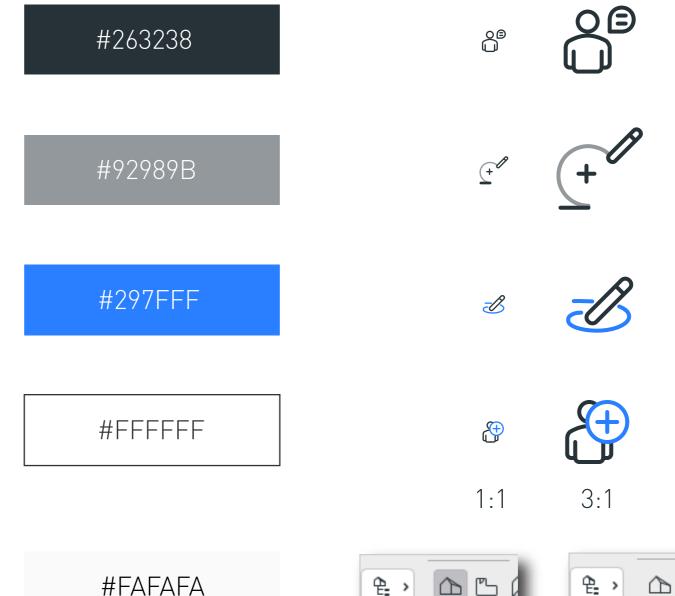


1:1

COLORS

- Basic dark blue (#263238) to draw simple contours.
- Light grey (#92989B) to distinguish a function.
- Blue color (#297FFF) to emphasize, white (#FFFFF) to use ordenary fill.
- To fill element(s) that are higher up in the Navigator:
 - View Map: light blue (#E5F3FF),

- Project Map, Layout Book and Publisher Set: light grey (#ECECEC), - Lower in the Navigator: - Off white (#FAFAFA),

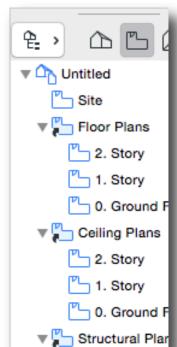


#ECECEC

#E5F3FF

#297FFF





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COLORS

- Use the colors such as

light green,

green,

to show selection, or for Teamwork related icons and the

light blue,

yellow,

purple,

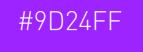
pink,

red,

orange

to emphasize or distinguish.





#14FF73

#06A647

#B8D8FF

#FFE214







































1:1

3:1

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SECTION AND SPECIAL FILL

- Draw sections by hand!
- Use the angle of 45° and 1px as the stroke's line weight!
- The line density has to be 1 px - 3 px - 1 px - 3 px - ...!
- Draw special fills by hand!
- Use the angle of 0° and 1px as the stroke's line weight!
- The line density has to be 1 px - 1 px - 1 px - 1 px - ...!

NAUGHTY



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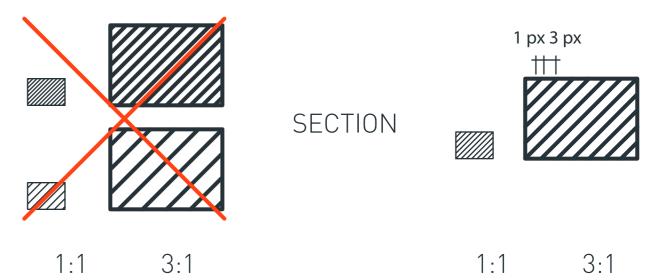
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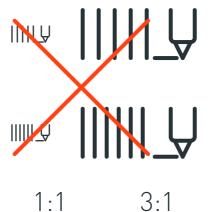
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Strokes not aligned with grid (1 px - 2 px/1 px - 4 px)

Strokes aligned with grid (1 px - 3 px)



SPECIAL FILL





3:1 1:1

3D

- Draw 3D by hand!
- Use the following 3 types to visualize elements in 3D:

Type 1:

Standard Axonometry

Type 2:

Frontal Axonometry

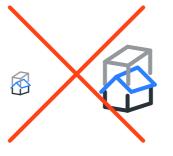
Type 3:

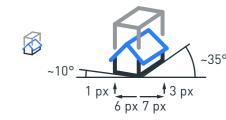
Isometric Axonometry

- Use Type 1 or 2 for function /feature/module etc!
- Use Type 2. in case for technical illustration!

NAUGHTY

NICE





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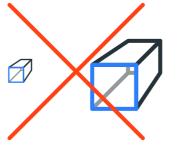
37

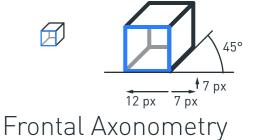
38

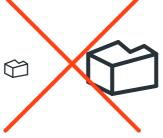
39

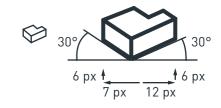
40

Standard Axonometry









Isometric Axonometry



3:1 1:1

SPECIAL POINTS

- Draw special points by hand!

Type 1: Edit points

- White dot on black cross.
- Stroke line weight is 1 px.
- To highlight a function that relates to a certain point in 2D/3D!

Type 2: Selection points

- Black dot with black fill and stroke.
- Stroke line weight is 1 px.
- Use it to highlight a point of an object in 2D/3D!

NAUGHTY



1:1 3:1



NICE

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- +
- 5 by 5 px cross with a 1 px white dott in the middle,
- 4 by 4 px dott with 1 px radius rounded corners,

1:1 3:1

Do not mix them up with other type of points or marks!







GAPS

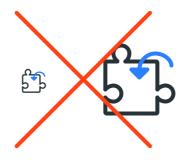
- Draw at least 1 px gaps by hand!
- Use them if it is necessary to represent elements of an icon in 3D to show or emphasize its essential meaning!

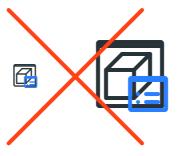
ELEMENT HIERARCHY

- Draw gaps by hand!
- Do not draw lines which are not visible!
- Do not use 'Clipping Mask'!
- Teamwork 'Reserved' green elements always have to be at the bottom left corner of the icon.

NAUGHTY









3:1 1:1

NICE







1:1







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ARROWS

- Draw arrows by hand!
- Use the angle of 90° for the arrowhead and 1px as the stroke's line weight!
- Draw the arrow head line lenght to 5 px.



DIALOG ILLUSTRATIONS

1 px, #263238

2 px, #263238

1px, 2-1-2-1 px, #263238

1 px, 3-3-3-3 px, #263238

1 px, 1-2-1-2 px, #263238

1 px, #92989b

2 px, #92989b

2-1-2-1 px, #92989b

3-3-3-3 px, #92989b

1 px, #263238, 'Arrow type':9

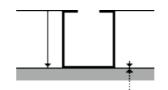
2 px, #297fff

#D0D0D0

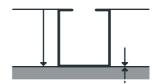
#DEDEDE

#FAFAFA

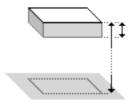
ArchiCAD 19



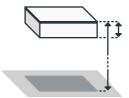


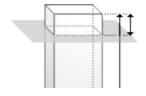


ARCHICAD 20

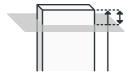


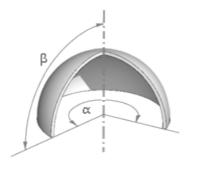




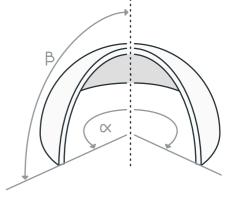


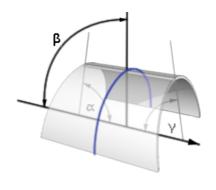


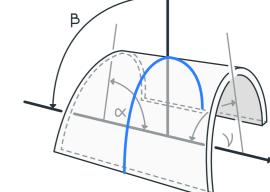












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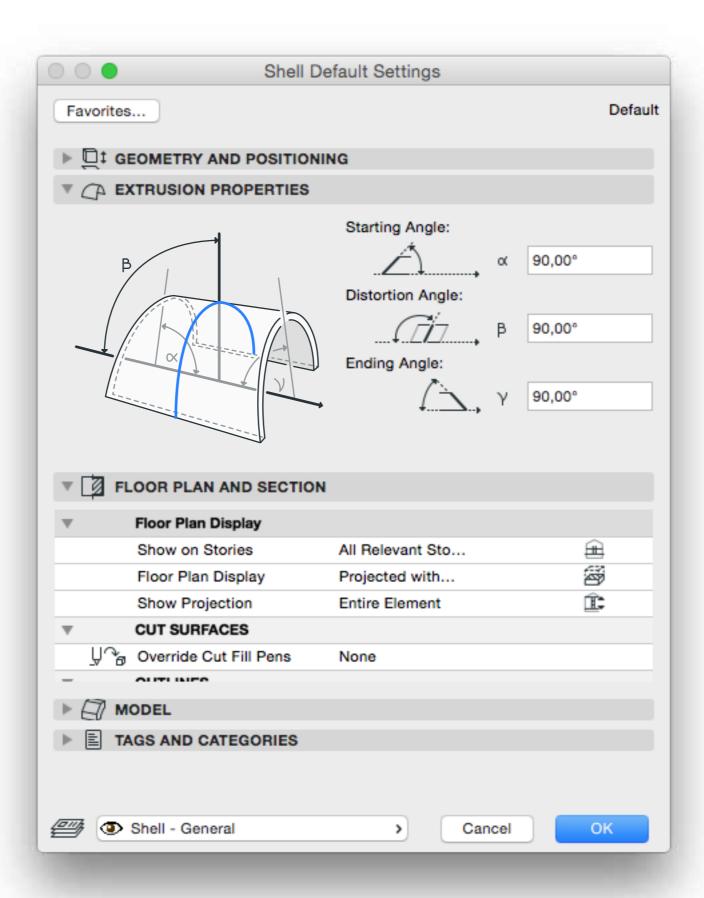
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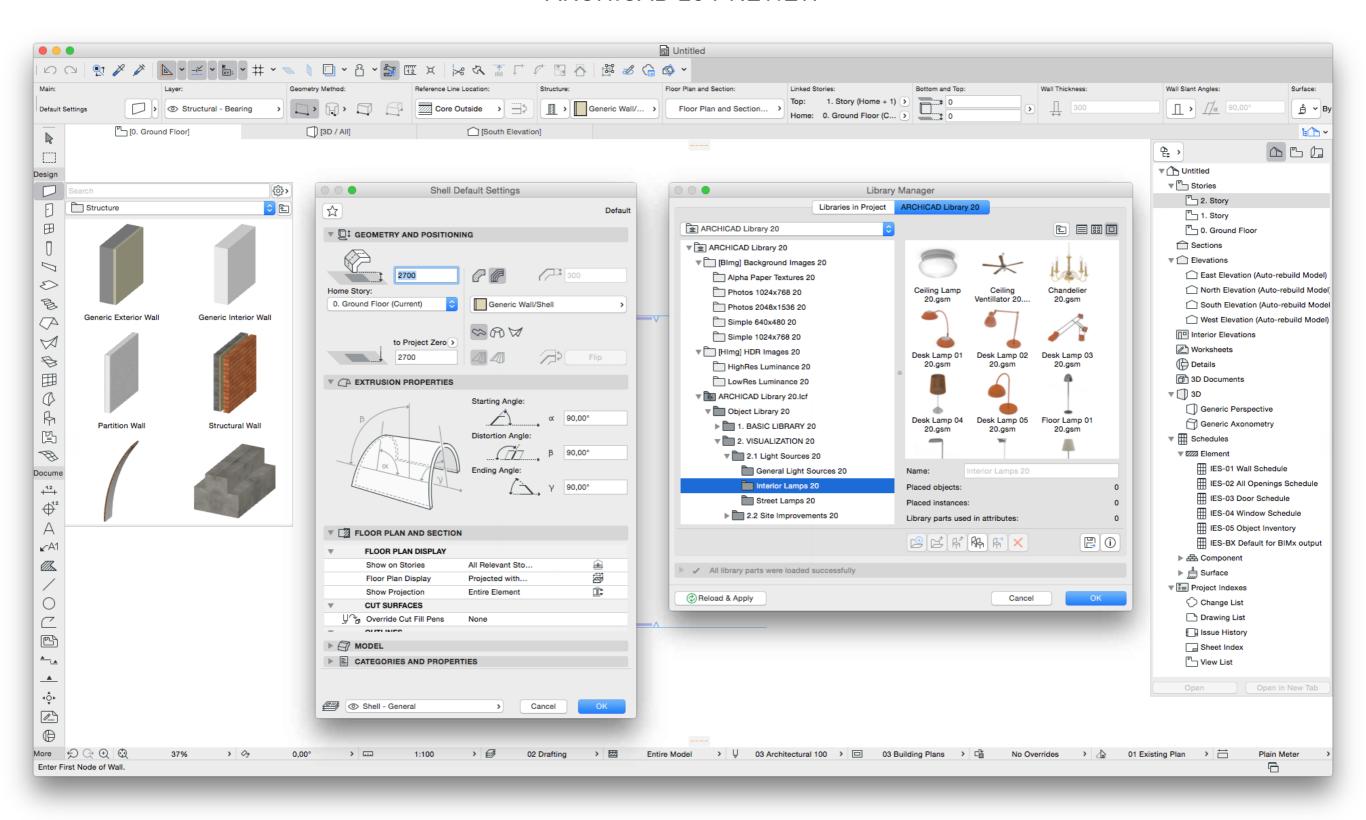
343536

373839

ILLUSTRATION IN ARCHICAD 20



ARCHICAD 20 PREVIEW



Step 3:

TOOL MANUAL

Choose your tool, set up your work environment and learn it functions.



SET UP PREFERENCES IN ADOBE ILLUSTRATOR

Set 'Keyboard Increment' to 0,5 px!

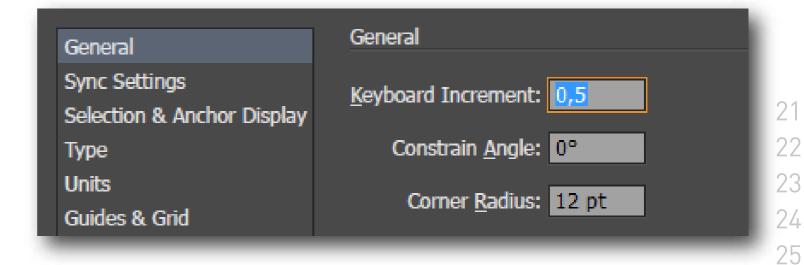
(Edit > Preferences > General)

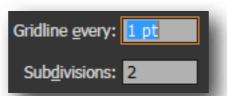
Set Grid density to 1 px and subdivisions to 2 px!

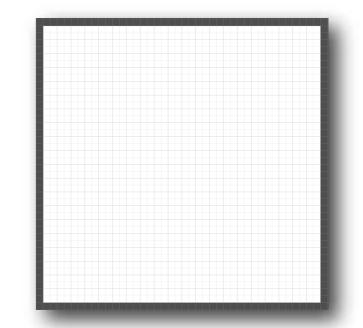
(Edit > Preferences > Guides & Grid)

Set Units to 'Pixels'!

(Edit > Preferences > Units)







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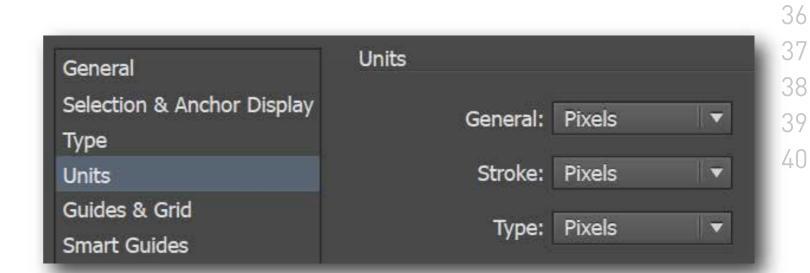
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NECESSARY TOOLS

- 1. Selection Tool (V)
- 2. Direct Selection Tool (A)
- 3. Pen Tool (P)
- 4. Type Tool (T)
- 5. Rectangle Tool (M)
- 6. Scissors Tool (C)
- 7. Eyedropper Tool (I)
- 8. Artboard Tool (Shift+0)
- 9. Color Selection Tool



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> 34 35

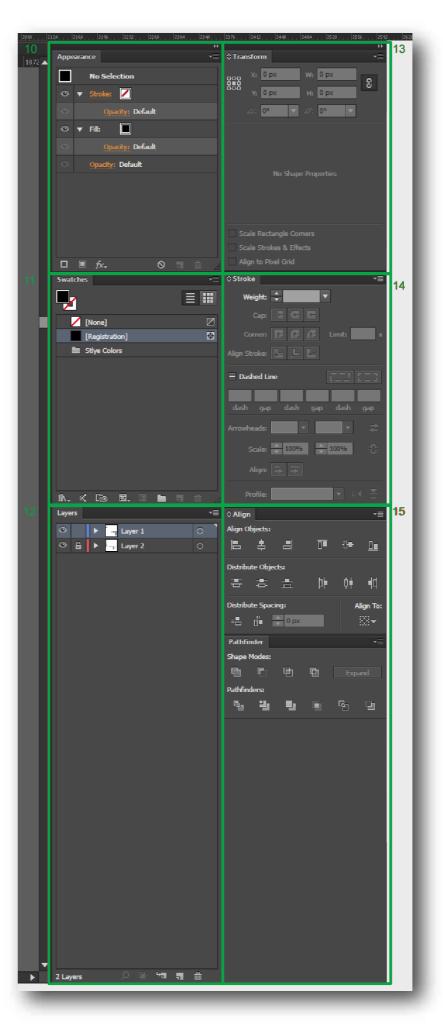
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NECESSARY WINDOWS

- 10. Transfrom
- 11. Stroke
- 12. Swatches
- 13. Align
- 15. Pathfinder
- 16. Layers
- 17. Appearance
- 18. Effect/Stylize/Round Corner



GRAPHISOFT.

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SET UP PREFERENCES

Set 'Keyboard Increment' to 0,5 px!

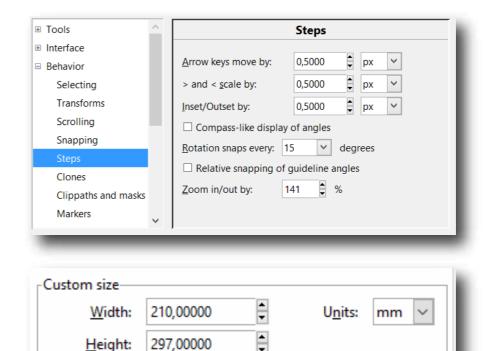
(Edit/Preferences > Behavior > Steps)

Set Grid density to 1 px and subdivisions to 2 px!

(Edit > Preferences > Grids)

Set Units to 'Pixels'!

(File > Document Properties > Page > Custom Size > Units)

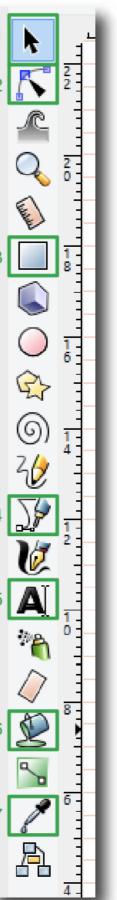


Tools	G	rids
☐ Interface		
Windows	Line color when zo	oming out
Grids	Minor grid line of	color
Keyboard Shortcuts	O Major grid line o	colour
Behavior	Default grid settin	gs
☐ Input/Output	Rectangular grid	Axonometric grid
Input devices		, atomornio gina
SVG output	Grid units:	px 💙
Color management	Origin X:	0,00000
Autosave	Origin Y:	0,00000
Open Clip Art		
System	Spacing X:	1,00000
Bitmaps	Spacing Y:	1,00000
Rendering	Minor grid line co	olor:
Spellcheck	Major grid line co	olor:
	Major grid line ev	very: 5
	☐ Show dots ins	tead of lines

TOOL MANUAL/

NECESSARY TOOLS

- 1. Select and Transform Objects
- 2. EditPath by Nodes
- 3. Create Rectangle and Squares
- 4. Draw Bezier Curves and Straight Lines
- 5. Create and Edit Text Objects
- 6. Fill Bounded Areas
- 7. Pick Colors from Image
- 8. Cut Selection



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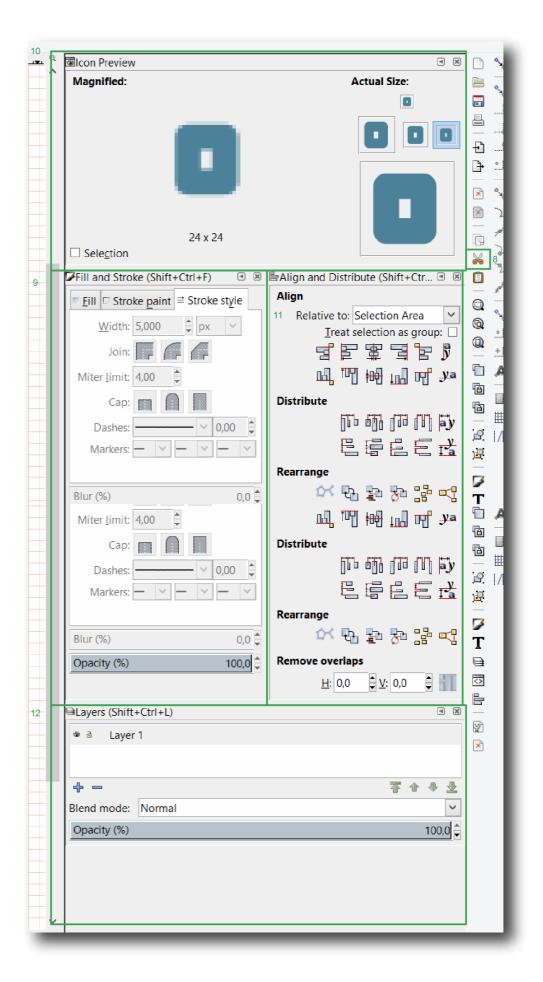
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TOOL MANUAL/

NECESSARY WINDOWS

- 9. Fill and Stroke
- 10. Icon Preview
- 11. Align and Distribute
- 12. Layers



Step 4:

ARCHICAD STANDARDS

Learn the ARCHICAD side requirements for your icon(s) - such as UI location and size.

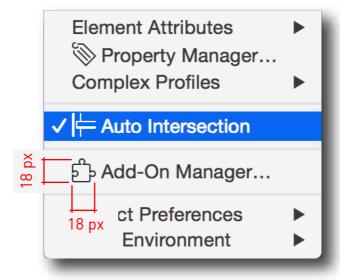


MENU ICONS

- Canvas Size: 18x18 px,

TOOLBAR ICONS:

- Canvas Size: 18x18 px,



Icons have to be only hairlined for good visibility even under selection highlight. Try to use no fill for these types of icons!

Menu



Toolbar

PALETTE ICONS

- Canvas Size: 25x20 px, 17x9 px,

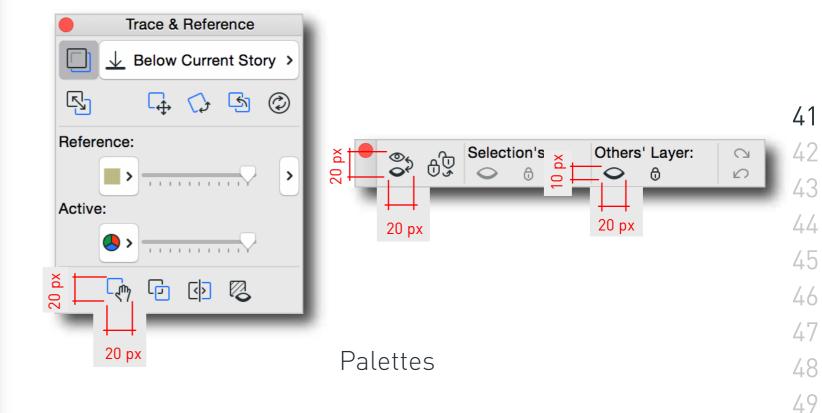
POPUP ICONS

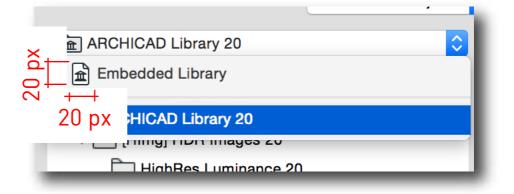
Mac:

- Canvas Size: 20x20 px,

WIN:

- Canvas Size: 18x18 px,





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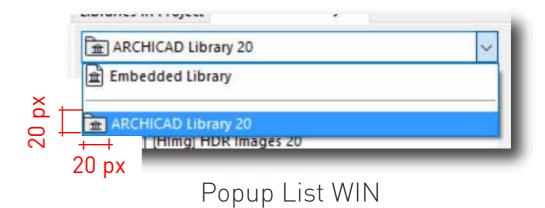
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Popup List Mac



DIALOG ICONS

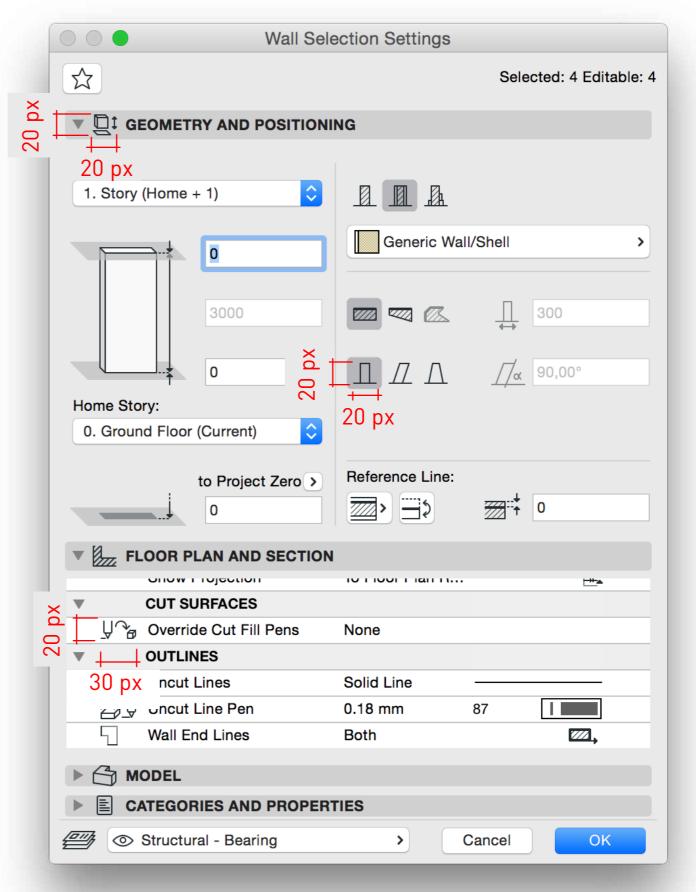
- Canvas Size: 18x18 px,

ROLL-DOWN ICONS

- Canvas Size: 20x20 px,

LIST ICONS

- Canvas Size: 30x18 px,



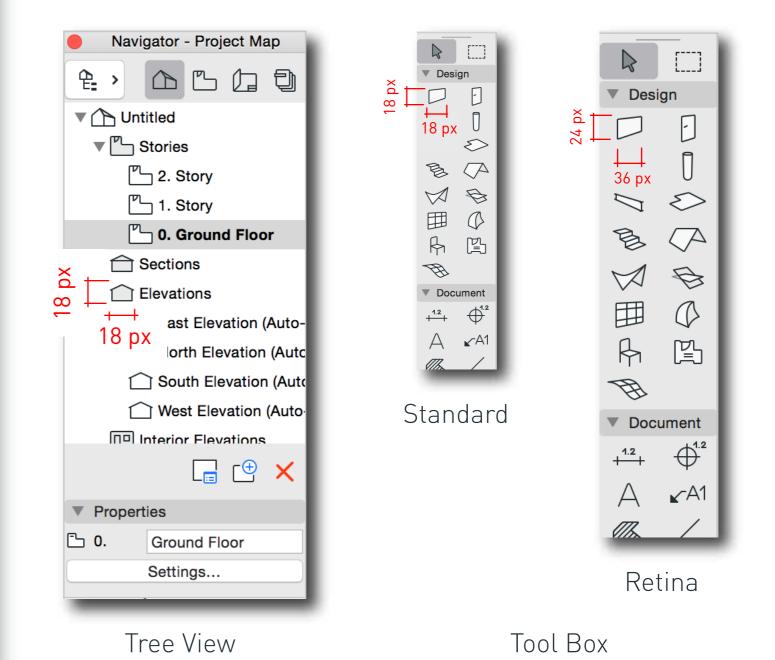
Dialog

TREE ICONS

- Canvas Size: 18x18 px,

TOOL-BOX ICONS

- Canvas Size: 18x18 px for standard size monitors and 36x24 px for retina display monitors.



GRAPHISOF I

INFO BOX ICONS:

Push Button Icons:

- Canvas Size: 34x24 px,

Popup Button Icons:

- Canvas Size: 34x24 px,

Radio Button Icons:

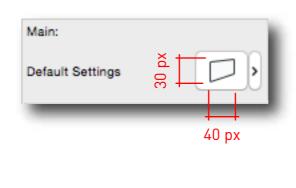
- Canvas Size: 34x24 px,

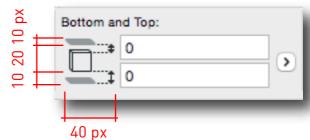
Pop-up Icons:

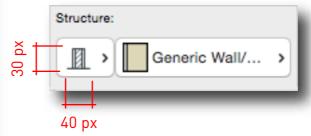
- Canvas Size: 18x18 px,

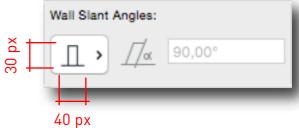
Panel Illustrations:

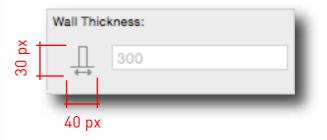
- Canvas Size: 33x33 px, 36x24, 37x34 px,

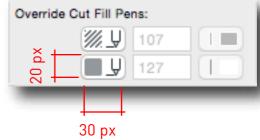


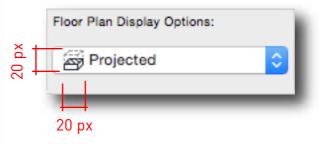


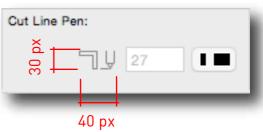


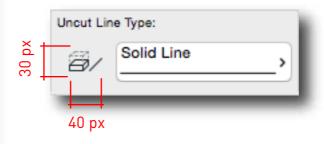


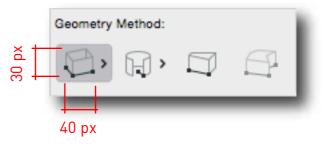












Info Box

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Step 5:

STEP BY STEP TUTORIAL

An example study about the icon design process.



ADOBE ILLUSTRATOR

This Adobe Illustrator step by step tutorial shows you how to create a proper ARCHICAD toolbar icon. You can use this process to create all kinds of icons.

Step 1: Create a new file: 'File/New...'

Important:

- Name: 'Newlcon_18x18'

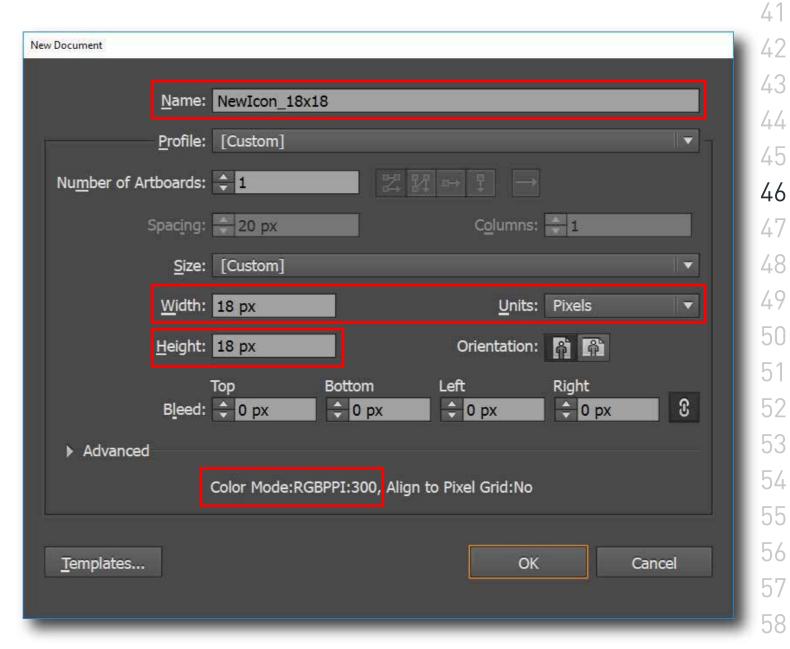
• Width: 18 px,

• Height: 18 px,

- Units: Pixels,

- Document Color Mode: RGB,

'File/Document Color Mode/RGB color'



New File

Step 2: Set up your Work Environment.

Suggestions:

- Use the function.

'Snap to Grid'

'View/Snap to Grid'

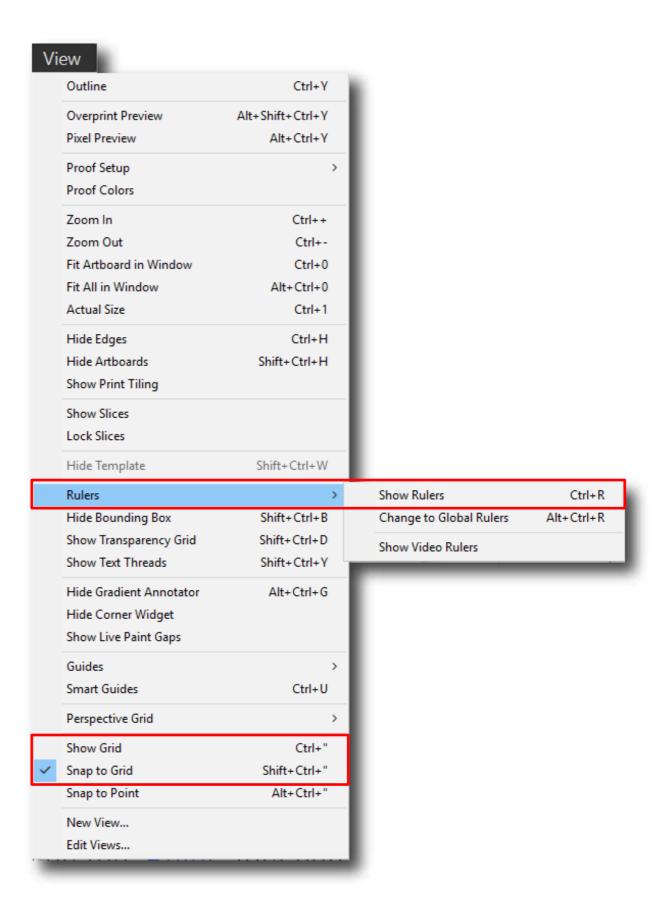
- Turn on the option.

'Show Grid'

'View/Show to Grid'

- Turn on the

'View/Rulers/Show Ruler's function.



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View Menu

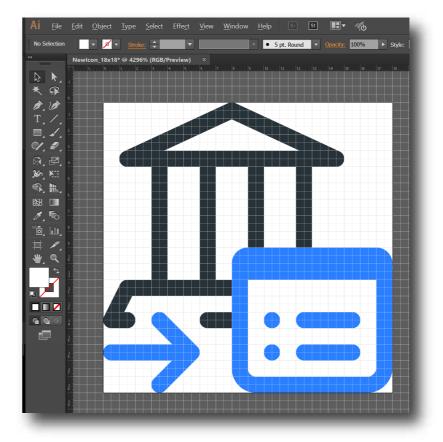
Step 3: Draw the icon while keeping the content within the canvas!

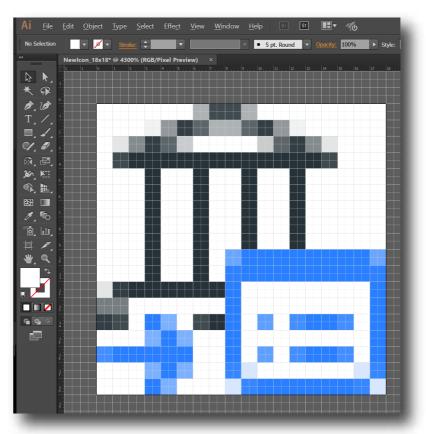
Step 4: Check your work by using the Pixel Preview feature.

'View/Pixel Preview'

Step 5: Save your work as an SVG

See related topic on page 34.





Pixel Preview

INKSCAPE

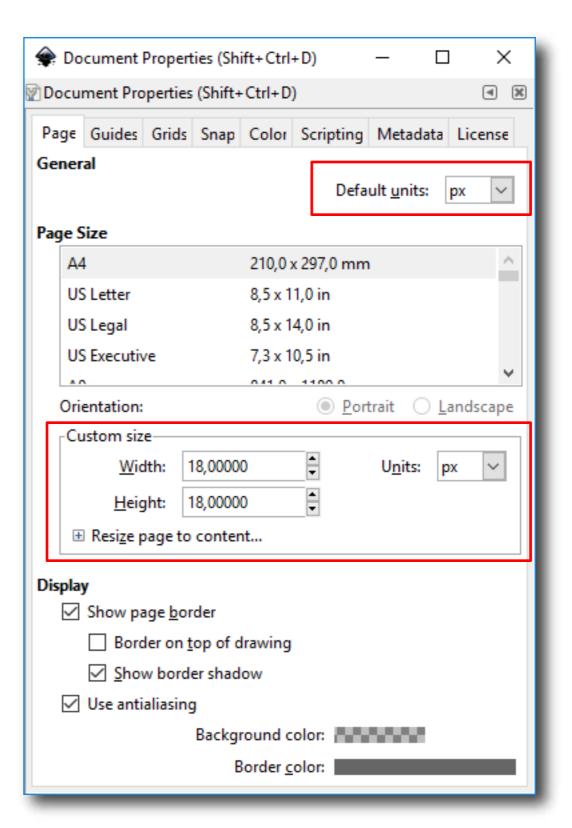
This Inkscape step by step tutorial shows you how to create a proper ARCHICAD toolbar icon. You can use this process to create all kinds of icons.

Step 1: Create a new file: Start Inkscape or go to 'File/New...'

Step 2: Set up Canvas Size and Units.

- Canvas Size: 18x18 px,
- Units: px,

'File/Document Propetries'



Document Properties

Step 3: Set up your Work Environment.

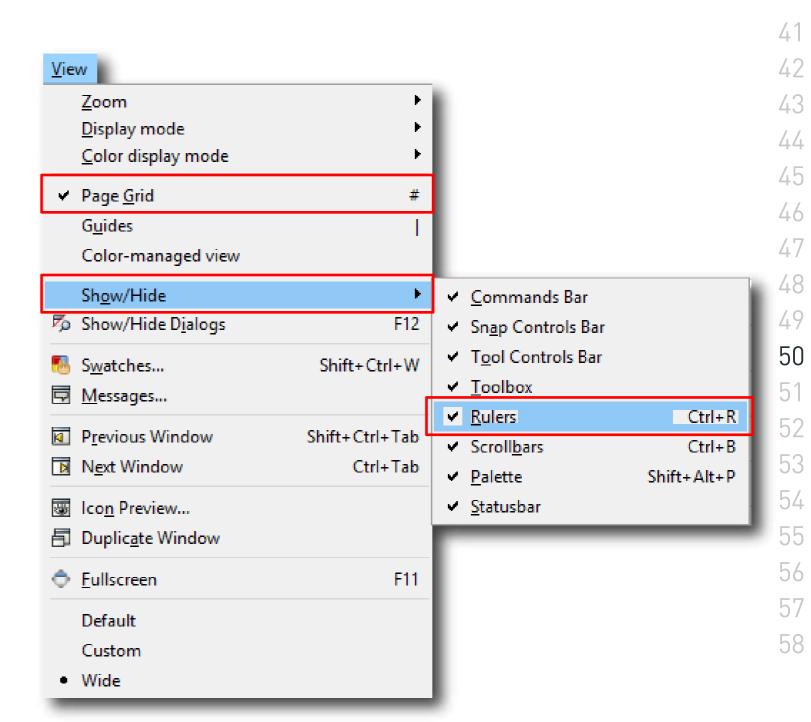
Suggestions:

- Turn on the 'Page Grid' option.

'View/Page Grid'

- Turn on the 'Ruler' function.

'View/Show/Hide Rulers'



View Menu



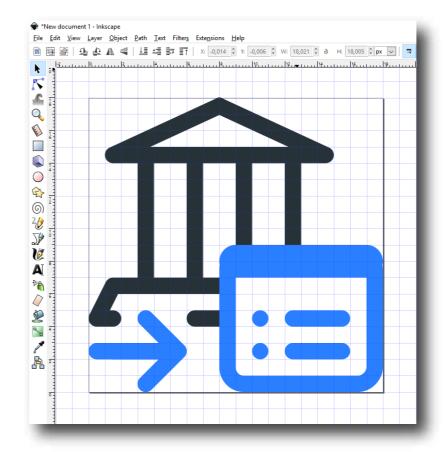
Step 4: Draw the icon while keeping the content within the canvas!

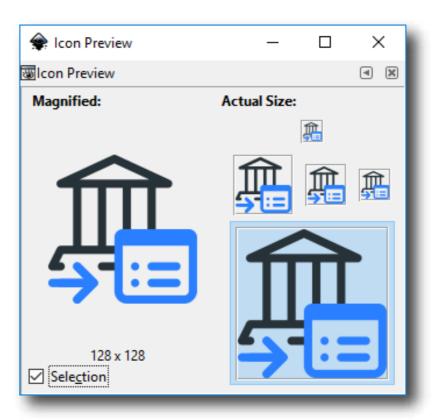
Step 5: Check your work by using the Icon Preview feature.

'View/Icon Preview...'

Step 6: Save your work as an SVG

See related topic on page 43.





Icon Preview



Step 6:

SAVE AS SVG TUTORIAL

Check and save your work as SVG.



SAVE AS SVG TUTORIAL/

QUALITY CHECK IN ILLUSTRATOR

- Always check your work!
- Arrange vectors to have the best pixelized view for the icon!
- Use 'Ctrl + Alt + Y' for pixel preview!



NAUGHTY

NICE

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RASTERIZED IMAGE

NAME SVG AS FOLLOWS:

'filename_[widthnumber]x[heightnumber].svg'

SAVE AS SVG TUTORIAL/

SAVE AS SVG ILLUSTRATOR

- To export an SVG, go to:

File > Save As

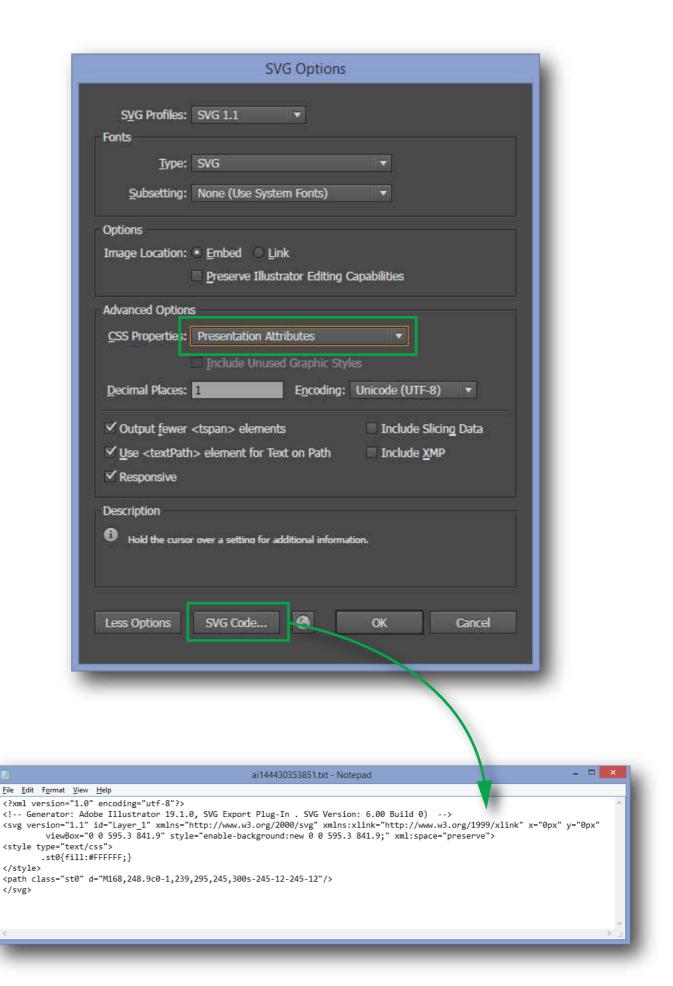
- Use the following options on the SVG Options panel:

'CSS Propetries: Presentation Attributes'

- You can check the SVG code by clicking on "SVG Code..."!

For further information, please go to:

http://wiki/w/B-379_New_Vectorial_Icon_Format_for_HDPI_Display/Specifik%C3%A1ci%C3%B3



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SAVE AS SVG TUTORIAL/

QUALITY CHECK IN INKSCAPE

- Always check your work!
- Arrange vectors to have the best pixelized view for the icon!
- Use the 'Icon Preview' panel!

SAVE AS SVG IN INKSCAPE

- To export an SVG, go to:

File > Save As

For further information, please go to:

http://wiki/w/B-379_New_Vectorial_Icon_Format_for_ HDPI_Display/Specifik%C3%A1ci%C3%B3



VECTOR IMA

NAUGHTY



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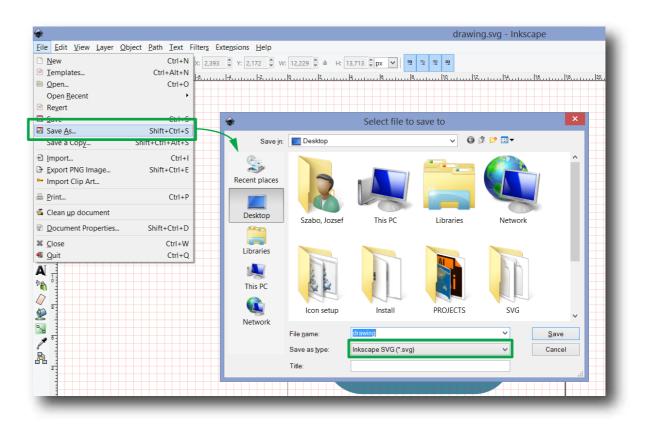
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RASTERIZED IMAGE



NAME SVG AS FOLLOWS:

'filename_[widthnumber]x[heightnumber].svg'



ASSET LIBRARY

A collection of predesigned, reusable content.



