# 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

## 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.

## HOW TO USE THIS DOCUMENT

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.

## 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
[区x $\mathbb{a}_{x}$狊 Ex10
invent what already exists!

## PRINCIPLES/

## 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! IT'S NAUGHTY!



WARNING


2
3
4
5
6
7
8
9
10
11 12

## 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)

$1: 1 \quad 3: 1$


## FF DIN

Aa Qq Rr
Aa $\mathbf{Q q} \mathbf{R r}$
Ostbahnhof
abcdefghijklm nopqrstuvwxyz

0123456789

1. 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.

## 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.

## CONSISTENCY

Alignment of objects within icons and across different surfaces is just as important.

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!


0


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.

- Keep all the icons hairlined! Use fills only if it is a must, especially if you design a menu icon linverse 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.

$1: 1 \quad 3: 1$


No stroke, only fill.


1:1
3:1


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!


1 px stroke not aligned on grid


2 px stroke not 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


10:1


10:1

Round Corners


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!


## STYLE GUIDE MANUAL/

## 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!

$1: 1 \quad 3: 1$
$\qquad$




## COLORS

- Basic dark blue (\#263238) to draw simple contours.
- Light grey (\#92989B) to distinguish a function.
- Blue color (\#297FFF) to emphasize, white (\#FFFFFF) 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),
\#E5F3FF \#297FFF

```
#92989B
```


$\mathscr{B}$

思
1:1



3:1


- $\triangle$ Unititled

M Site
$\rightarrow$ Filoor Plans
$\square$ 2. Story

1. Story

B 0. Ground $F$
v. Celling Plans
$\square$ 2. Story
$\square$ 1. Story
$\square$ 0. Ground F
Structural Plar

## GRAPHISOFT.

STYLE GUIDE MANUAL/

## 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.



## STYLE GUIDE MANUAL/

## SECTION AND SPECIAL FILL

- Draw sections by hand!
- Use the angle of $45^{\circ}$ and $1 p x$ as the stroke's line weight!
- The line density has to be $1 p x-3 p x-1 p x-3 p x-\ldots!$
- Draw special fills by hand!
- Use the angle of $0^{\circ}$ and 1 px as the stroke's line weight!
- The line density has to be $1 \mathrm{px}-1 \mathrm{px}-1 \mathrm{px}-1 \mathrm{px}-\ldots!$

$1: 1 \quad 3: 1$
Strokes not aligned with grid (1px-2px/1px-4px)


1:1
3:1
Strokes aligned with grid
(1px-3px)


1:1 $3: 1$

SPECIAL FILL

## |||||||| لـ <br> 

- 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!



## STYLE GUIDE MANUAL/

## 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!

$1: 1 \quad 3: 1$
$1: 1$
$3: 1$

* $\quad \boldsymbol{-}-5$ by 5 px cross with a 1 px white dott in the middle,
-     -         - 4 by 4 px dott with 1 px radius rounded corners,
$1: 1 \quad 3: 1$

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 necesary 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.

$1: 1 \quad 3: 1$
1:1
3:1


## STYLE GUIDE MANUAL/

## ARROWS

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

$1: 1 \quad 3: 1$



26
27
28
1:1

STYLE GUIDE MANUAL/

## DIALOG ILLUSTRATIONS

1 px, \#263238
2 px, \#263238
$1 p x, 2-1-2-1 \mathrm{px}, \# 263238$
1 px, 3-3-3-3 px, \#263238
$1 \mathrm{px}, 1-2-1-2 \mathrm{px}, \# 263238$
1 px, \#92989b
2 px, \#92989b
2-1-2-1 px, \#92989b
3-3-3-3 px, \#92989b
$1 \mathrm{px}, \# 263238$, 'Arrow type':9
2 px, \#297fff

Shell Default Settings

## ARCHICAD 20 PREVIEW



Step 3:

## TOOL MANUAL

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

## TOOL MANUAL/

## SET UP PREFERENCES IN

ADOBE ILLUSTRATOR
Set 'Keyboard Increment to $0,5 \mathrm{px}$ !
(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)

| General |
| :--- |
| Sync Settings |
| Selection \& Anchor Display |
| Type |
| Units |
| Guides \& Grid |

## General

## Keyboard Increment: 0,5

Constrain Angle: $0^{\circ}$
Comer Radius: 12 pt


TOOL MANUAL/
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


TOOL MANUAL/

## NECESSARY WINDOWS

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


## TOOL MANUAL/

## 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)



## 田 Tools

$\boxminus$ Interface
Windows
Grids
Keyboard Shortcuts
© Behavior
$\boxminus$ Input/Output Input devices SVG output Color management
Autosave
Open Clip Art
System
Bitmaps
Rendering
Spellcheck

## 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


## TOOL MANUAL/

## NECESSARY WINDOWS

## 9. Fill and Stroke

10. Icon Preview
11. Align and Distribute
12. Layers


Step 4:


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

ARCHICAD STANDARDAS/

## MENU ICONS

- Canvas Size: $18 \times 18 \mathrm{px}$,

TOOLBAR ICONS:

- Canvas Size: $18 \times 18 \mathrm{px}$,


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


Toolbar

## PALETTE ICONS

- Canvas Size: $25 \times 20$ px, 17x9 px,

POPUP ICONS
Mac:

- Canvas Size: 20x20 px,

WIN:

- Canvas Size: $18 \times 18 \mathrm{px}$,


Popup List Mac


Popup List WIN

ARCHICAD STANDARDAS／

## DIALOG ICONS

－Canvas Size： $18 \times 18$ px．

ROLL－DOWN ICONS
－Canvas Size：20x20 px，

LIST ICONS
－Canvas Size：30x18 px．


Dialog

## TREE ICONS

- Canvas Size: $18 \times 18$ px.


## TOOL-BOXICONS

- Canvas Size: 18x18 px for standard size monitors and $36 \times 24$ px for retina display monitors.


Tree View


Retina

Tool Box

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: $18 \times 18 \mathrm{px}$,

Panel Illustrations:

- Canvas Size: $33 \times 33$ px, $36 \times 24,37 \times 34 \mathrm{px}$,



Info Box

## Step 5:



An example study about the icon design process.

## STEP BY STEP TUTORIAL/

## 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'

STEP BY STEP TUTORIAL/
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' Rulers'function.


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:


Check and save your work as SVG.

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!



## 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


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 image


NAME SVG AS FOLLOWS:
'filename_[widthnumber]x[heightnumber].svg'

## ASSET LIBRARY

A collection of predesigned, reusable content.


