

Asset Naming Conventions

Save all image assets into the **assets** directory in the project repository. Within this directory, you can arrange/group assets in any way that makes sense to you, but this is where the files need to go.

iOS

In the world of Objective-C/iOS development, we love to see verbose naming in our code as well as our files. Xcode, the tool we use for development in this environment, does a splendid job of finishing our sentences for us, so following a logical naming convention (*as follows*) will help us to speedily add your designs to our programs efficiently and easily.

Retina assets are exactly 200% the size of non-retina assets. Make sure to use pixel dimensions that are easily divisible by 2 in order to scale up/down accordingly and avoid half-pixel remnants. That goes for type as well. Type face sizes of 19 pts, for example, don't scale well between the two resolutions.

Start with the root of what the asset is/does

- screenname_type_thing / action_state *i.e.*
 - settings_tableview_background
 - agenda_listcell_icon_breakout
 - speakerprofile_button_share_down

Get more specific

- use Apple conventional suffixes for retina/device specification *i.e.*
 - settings_tableview_background@2x~iPhone (*specifically for retina iPhones*)
 - agenda_listcell_icon_breakout~iPad (*specifically for non-retina iPads*)
 - speakerprofile_button_share_down@2x (*for any retina device*)
-

App Icon Standard Sizes & File Names

iPhone-only Apps

| Image Size (px) | File Name | Used For | Requirement |
|------------------------|----------------------|--|---------------------------|
| 512x512 | iTunes Artwork | Ad Hoc iTunes | Optional, but recommended |
| 57x57 | Icon.png | App Store & Home Screen on non-retina iPhone/iPod Touch | Required |
| 114x114 | Icon@2x.png | Home Screen for retina iPhone/iPod Touch | Required |
| 72x72 | Icon-72.png | App Store & Home Screen on non-retina iPad | Optional, but recommended |
| 144x144 | Icon-72@2x.png | Home Screen for retina iPad | Optional, but recommended |
| 29x29 | Icon-Small.png | Spotlight & Settings for non-retina iPhone/iPod Touch, as well as Settings for non-retina iPad | Optional, but recommended |
| 50x50 | Icon-Small-50.png | Spotlight for non-retina iPad | Optional, but recommended |
| 58x58 | Icon-Small@2x.png | Spotlight & Settings for retina iPhone/iPod Touch, as well as Settings on retina iPad | Optional, but recommended |
| 100x100 | Icon-Small-50@2x.png | Spotlight for retina iPad | Optional, but recommended |

iPad-only Apps

| Image Size (px) | File Name | Used For | Requirement |
|------------------------|----------------------|--|---------------------------|
| 512x512 | iTunes Artwork | Ad Hoc iTunes | Optional, but recommended |
| 72x72 | Icon-72.png | App Store & Home Screen on non-retina iPad | Required |
| 144x144 | Icon-72@2x.png | Home Screen for retina iPad | Required |
| 29x29 | Icon-Small.png | Settings for non-retina iPad | Optional, but recommended |
| 50x50 | Icon-Small-50.png | Spotlight for non-retina iPad | Optional, but recommended |
| 58x58 | Icon-Small@2x.png | Settings on retina iPad | Optional, but recommended |
| 100x100 | Icon-Small-50@2x.png | Spotlight for retina iPad | Optional, but recommended |

Universal Apps

| Image Size (px) | File Name | Used For | Requirement |
|------------------------|----------------------|--|---------------------------|
| 512x512 | iTunes Artwork | Ad Hoc iTunes | Optional, but recommended |
| 57x57 | Icon.png | App Store & Home Screen on non-retina iPhone/iPod Touch | Required |
| 114x114 | Icon@2x.png | Home Screen for retina iPhone/iPod Touch | Required |
| 72x72 | Icon-72.png | App Store & Home Screen on non-retina iPad | Required |
| 144x144 | Icon-72@2x.png | Home Screen for retina iPad | Required |
| 29x29 | Icon-Small.png | Spotlight & Settings for non-retina iPhone/iPod Touch, as well as Settings for non-retina iPad | Optional, but recommended |
| 50x50 | Icon-Small-50.png | Spotlight for non-retina iPad | Optional, but recommended |
| 58x58 | Icon-Small@2x.png | Spotlight & Settings for retina iPhone/iPod Touch, as well as Settings on retina iPad | Optional, but recommended |
| 100x100 | Icon-Small-50@2x.png | Spotlight for retina iPad | Optional, but recommended |

App Launch Screen Standard Sizes & File Names

Launch Screen Dimensions

| Device | Portrait | Landscape |
|--------------------------------|-----------------------------|-----------------------------|
| iPhone & iPod Touch | 320x480 (640x960 @2x) | Not Supported |
| iPhone & iPod Touch (5th Gen.) | 640x1136 | Not Supported |
| iPad | 768x1004 (1536x2008 @2x) | 1024x768 (2048x1496 @2x) |

Launch Image Name Orientation Modifiers

| Modifier | Description |
|-------------------------|---|
| - PortraitUpsideDown | Specifies an upside-down portrait version of the launch image. A file with this modifier takes precedence over a file with the -Portrait modifier for this specific orientation. |
| -LandscapeLeft | Specifies a left-oriented landscape version of the launch image. A file with this modifier takes precedence over a file with the -Landscape modifier for this specific orientation. |
| -LandscapeRight | Specifies a right-oriented landscape version of the launch image. A file with this modifier takes precedence over a file with the -Landscape modifier for this specific orientation. |
| -Portrait | Specifies the generic portrait version of the launch image. This image is used for right-side up portrait orientations and takes precedence over the Default.png image file (or your custom-named replacement for that file). If a file with the -PortraitUpsideDown modifier is not specified, this file is also used for upside-down portrait orientations as well. |
| -Landscape | Specifies the generic landscape version of the launch image. If a file with the -LandscapeLeft or -LandscapeRight modifier is not specified, this image is used instead. This image takes precedence over the Default.png image file (or your custom-named replacement for that file). |
| (none) | If you provide a launch image file with no orientation modifier, that file is used when no other orientation-specific launch image is available. For apps running on systems earlier than iOS 3.2, you must name this file Default.png. |

Android

On the Android side of the business, it's a little more work up-front to figure out what images you'll need to produce. A different file size will be required for each targeted resolution. You should consult the developer on the project to know what the target resolutions are for your particular product, but here is a list of the most common:

Common Resolutions

| Android Tablets | Android Phones |
|-----------------|----------------|
| 1280x800 | 320x480 |
| 1024x600 | 480x800 |
| | 480x854 |
| | 540x960 |
| | 1280x720 |

Sizing For Resolution

Android screens, in addition to their pixel-based resolution, also have a multitude of pixel densities to account for as well. Teehan+Lax have a conversion tool (<http://www.teehanlax.com/blog/density-converter/>) that helps calculate the dimensions of your images at different pixel density displays for the resolution in question.

Android Pixel Densities

- Non-Retina/MDPI (100%)

- HDPI (150%)
 - Retina (200%)
 - XHDPI (225%)
-

9-Patch Images for Scaling

Android images used for scaling, like for button backgrounds or borders, use a technique called 9-Patch where the image being scaled is split into a grid of 9 sections:

| | | |
|-------------|---------------|--------------|
| Top-Left | Top-Middle | Top-Right |
| Middle-Left | Middle-Middle | Middle-Right |
| Bottom-Left | Bottom-Middle | Bottom-Right |

The four corners of the image essentially remain static and the connecting pieces (the middles) stretch to fill the area of the object this image is designed to cover. See the Android Developer Website for more information
<http://developer.android.com/tools/help/draw9patch.html>.

Naming Conventions

The Android OS manages fetching of images from the app bundle based on screen resolution/density and looks for the asset resources in corresponding directories (as opposed to modifiers in the title of the image name in the case of iOS).

So, create a separate director for each target resolution.

Start with the root of what the asset is/does

- screenname_type_thing / action_state *i.e.*
 - settings_tableview_background
 - agenda_listcell_icon_breakout
 - speakerprofile_button_share_down
- if 9-patch scalable image, add .9 before the extension
 - settings_tableview_background.9.png
 - agenda_listcell_icon_breakout.9.png

Iconography Size & Scale

| Size (1 dp = 1 px @ 160dpi) | Usage |
|--|---------------------------|
| 48x48 | Home Screen/Launcher Icon |
| 512x512 | Google Play Icon |
| 32x32 — Full Asset :: 24x24 — Drawn/Optical Area | Action Bar Icons |
| 16x16 — Full Asset :: 12x12 — Drawn/Optical Area | Contextual Icons |
| 24x24 — Full Asset :: 22x22 — Drawn/Optical Area | Notification Icons |