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```
add_image_size( string $name, int $width, int $height,  
bool|array $crop = false )
```

Registers a new image size.

### Parameters

**\$name** `string` required

Image size identifier.

**\$width** `int` optional

Image width in pixels. Default 0.

**\$height** `int` optional

Image height in pixels. Default 0.

**\$crop** `bool` | `array` optional

Image cropping behavior. If false, the image will be scaled (default).

If true, image will be cropped to the specified dimensions using center positions.

If an array, the image will be cropped using the array to specify the crop location:

`string`

The x crop position. Accepts `'left'`, `'center'`, or `'right'`.

**1** `string`

The y crop position. Accepts `'top'`, `'center'`, or `'bottom'`.

Default: `false`

### More Information

#### Reserved Image Size Names

These are the reserved image size names recognized by WordPress: `'thumb'`, `'thumbnail'`, `'medium'`, `'medium_large'`, `'large'`, and `'post-thumbnail'`.

The names “thumb” & “thumbnail” are just aliases- they are exactly the same.

For a detailed explanation and “why”, read further inside the [image\\_downsize\(\)](#) article.

However, if needed, you can always set the options yourself:

Copy

```
update_option( 'thumbnail_size_w', 160 );
update_option( 'thumbnail_size_h', 160 );
update_option( 'thumbnail_crop', 1 );
```

## Crop Mode

Set the image size by resizing the image proportionally (without distorting it):

wp-includes/media.php

Copy

```
add_image_size( 'custom-size', 220, 180 ); // 220 pixels wide by 180 pixels tall, soft proportional
```

Set the image size by cropping the image (not showing part of it):

wp-includes/media.php

Copy

```
add_image_size( 'custom-size', 220, 180, true ); // 220 pixels wide by 180 pixels tall, hard crop mode
```

Set the image size by cropping the image and defining a crop position:

wp-includes/media.php

Copy

```
add_image_size( 'custom-size', 220, 220, array( 'left', 'top' ) ); // Hard crop left top
```

When setting a crop position, the first value in the array is the x axis crop position, the second is the y axis crop position.

- x\_crop\_position accepts 'left', 'center', or 'right'.
- y\_crop\_position accepts 'top', 'center', or 'bottom'.

By default, these values default to 'center' when using hard crop mode.

You can find examples of the various crop types [here](#).

## Using the New Image Sizes

Now that you've defined some custom image sizes, there are a variety of ways that you can use them.

For Featured Images

To use your custom image sizes for a post's featured image, you can use [the\\_post\\_thumbnail\(\)](#) in the appropriate theme template file...

Note: To enable featured images the current theme must include `add_theme_support( 'post-thumbnails' );` in its `functions.php` file. See also [Post Thumbnails](#).

wp-includes/media.php

Copy

```
if ( has_post_thumbnail() ) {  
the_post_thumbnail( 'your-custom-size' );  
}
```

---

## For Media Library Images (Admin)

You can also make your custom sizes selectable from your WordPress admin. To do so, you have to use the `image_size_names_choose` hook to assign them a normal, human-readable name...

```
wp-includes/media.php  
Copy  
  
add_filter( 'image_size_names_choose', 'my_custom_sizes' );  
  
function my_custom_sizes( $sizes ) {  
return array_merge( $sizes, array(  
'your-custom-size' => __( 'Your Custom Size Name' ),  
) );  
}
```

---

## For General Media (PHP/Templates)

You can output images (by size) directly from the WordPress Media Library using PHP as well. To do this, simply use [wp\\_get\\_attachment\\_image\(\)](#).

```
wp-includes/media.php  
Copy  
  
// Assuming your Media Library image has a post id of 42...  
echo wp_get_attachment_image( 42, 'your-custom-size' );
```

Note: If you just want the image URL instead of a pre-built tag, you can use [wp\\_get\\_attachment\\_image\\_src\(\)](#) instead.

---

## Other Notes:

Using the 'false' setting will fail to produce a new image in the upload directory if one of the image dimensions of the uploaded image are equal to the new image size.

If a registered image size is removed from `functions.php`, then any image uploaded before that point and then deleted from the media library afterwards, does not have those auto-generated sizes deleted too. Only image sizes that exist in `functions.php` are deleted.

Although height and width are not required parameters, their default values (0) will lead to unwanted behavior, so bear in mind that you should always define them. Use a value of 9999 to define the other dimension as the one to be considered when image resize is executed.

## Source

```
wp-includes/media.php  
Copy
```

```
function add_image_size( $name, $width = 0, $height= 0, $crop = false ) {
    global $_wp_additional_image_sizes;

    $_wp_additional_image_sizes[ $name ] = array(
        'width'  => absint( $width ),
        'height' => absint( $height ),
        'crop'   => $crop,
    );
}
```

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Related

Uses

[absint\(\)](#)  
wp-includes/functions.php

Used by

[\\_wp\\_add\\_additional\\_image\\_sizes\(\)](#)  
wp-includes/media.php

[set\\_post\\_thumbnail\\_size\(\)](#)  
wp-includes/media.php

Changelog

Version	Description
<a href="#">2.9.0</a>	Introduced.

User Contributed Notes

Codex9 years ago

48

In a theme's `functions.php` file. Always use the “after\_setup\_theme” action hook.

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```
add_action( 'after_setup_theme', 'wpdocs_theme_setup' );
function wpdocs_theme_setup() {
    add_image_size( 'category-thumb', 300 ); // 300 pixels wide (and unlimited height)
    add_image_size( 'homepage-thumb', 220, 180, true ); // (cropped)
}
```

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Ian Dunn8 years ago

24

In addition to the Regenerate Thumbnails plugins, there's also a WP-CLI command: `wp media regenerate` . See <https://wp-cli.org/commands/media/regenerate/> or `wp help regenerate media` for details.

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Jensdiep8 years ago

^ 15 v

After you have add new sizes WordPress has to regenerate the images.

Best plugin to do that: <https://wordpress.org/plugins/regenerate-thumbnails/>

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rtpHarry8 years ago

^ 13 v

The section “Reserved Image Size Names” hints at it but doesn’t explicitly point out that you can also customise the medium and large sizes via code by using these option names:

```
medium_size_h : The medium size height.
medium_size_w : The medium size width.
large_size_h  : The large size height.
large_size_w  : The large size width.
```

So for example, to set the large height to 700px you would use this code:

Copy

```
update_option( 'large_size_h', 700 );
```

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Anthony Hortin8 years ago

^ 10 v

Related

[remove\\_image\\_size\(\)](#)  
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[get\\_the\\_post\\_thumbnail\(\)](#)  
[set\\_post\\_thumbnail\\_size\(\)](#)

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pixeline8 years ago

^ 10 v

Note that along `thumbnail` , `medium` , `large` , there is also a size built into wordpress that you can use : `full` to get the image at its original dimensions.

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Ivijan-Stefan Stipic4 years ago

^ 4 v

NOTE THIS:

If `add_image_size()` still doesn't work even after regenerating thumbnails, make sure that `add_theme_support( 'post-thumbnails' )` is loaded before `add_image_size()`

Example:

Copy

```
function wpse_setup_theme() {
    add_theme_support( 'post-thumbnails' );
    add_image_size( 'team-thumb', 60, 60, true );
}

add_action( 'after_setup_theme', 'wpse_setup_theme' );
```

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hongpong9 years ago

^ 3 v

If you upload an image whose dimensions match the `add_image_size()` when crop is set to `true` , in the `$meta` object accessed by the `wp_generate_attachment_metadata` filter, that matching image size will not be available. Also, image sizes that have larger dimensions than an uploaded photo will not be available either.

(Thus if you are using a technique to create something like a monochrome derivative image, you won't be able to get it to work if the uploaded image is exactly the same size as the image size you're using for your black and white version).

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Marc Bernard4 years ago

^ 3 v

Default settings for image size (see `/wp-admin/includes/schema.php`):

```
'thumbnail_size_w' => 150,
'thumbnail_size_h' => 150,
'medium_size_w' => 300,
'medium_size_h' => 300,
'medium_large_size_w' => 768,
'medium_large_size_h' => 0,
'large_size_w' => 1024,
'large_size_h' => 1024,
```

You can change these option values in WordPress > Admin > Settings > Media (`/wp-admin/options-media.php`).

Use `get_intermediate_image_sizes()` to get the current settings for predefined as well as custom image sizes.

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slingshotdesign3 years ago

^ 2 v

Note that if you would like your custom image sizes to be available in the admin, for example when choosing an image size for the Media & Text block, use the filter: [image\\_size\\_names\\_choose](#)

Example:

Copy

```
add_filter( 'image_size_names_choose', 'my_custom_sizes' );

function my_custom_sizes( $sizes ) {
    return array_merge( $sizes, array(
        'square_medium' => __( 'Square Medium' ),
        'square_large'  => __( 'Square Large' ),
    ) );
}
```

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Lovro Hrust2 years ago

^ 2 v

Since WordPress 5.3, two additional image sizes are added:

1536×1536

2048×2048

These are also their names.

For additional information, check `wp-includes/media.php`

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dejudicibus3 years ago

^ 1 v

Let us suppose that a master theme set in `functions.php` a size, let us say 'a\_size'. and that the `functions.php` in a child theme uses again this function to add the same size but with different value. It is not clear from this page if the old size is changed or the call is ignored or forbidden.

[Show feedback \(1\)](#)[Log in to add feedback](#)

Diana Thompson7 years ago

^ 0 v

The cropping behavior cited as 2) in Description,

[https://developer.wordpress.org/reference/functions/add\\_image\\_size/#description](https://developer.wordpress.org/reference/functions/add_image_size/#description), is \*not\* currently supported. Please see the ticket at <https://core.trac.wordpress.org/ticket/40370> for more information.

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