

RTL

Learn how to enable support for right-to-left text in Bootstrap across our layout, components, and utilities.



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ads via Carbon

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Get familiar

We recommend getting familiar with Bootstrap first by reading through our <u>Getting Started</u> <u>Introduction page</u>. Once you've run through it, continue reading here for how to enable RTL.

You may also want to read up on the RTLCSS project, as it powers our approach to RTL.

Experimental feature

The RTL feature is still **experimental** and will probably evolve according to user feedback. Spotted something or have an improvement to suggest? <u>Open an issue</u>, we'd love to get your insights.

Required HTML

There are two strict requirements for enabling RTL in Bootstrap-powered pages.

- 1. Set dir="rtl" on the <html> element.
- 2. Add an appropriate lang attribute, like lang="ar", on the <html> element.

From there, you'll need to include an RTL version of our CSS. For example, here's the stylesheet for our compiled and minified CSS with RTL enabled:

```
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/b</pre>
```

Starter template

You can see the above requirements reflected in this modified RTL starter template.

RTL examples

Get started with one of our several RTL examples.

Approach

Our approach to building RTL support into Bootstrap comes with two important decisions that impact how we write and use our CSS:

- 1. **First, we decided to build it with the <u>RTLCSS</u> project.** This gives us some powerful features for managing changes and overrides when moving from LTR to RTL. It also allows us to build two versions of Bootstrap from one codebase.
- 2. **Second, we've renamed a handful of directional classes to adopt a logical properties approach.** Most of you have already interacted with logical properties thanks to our flex butilities—they replace direction properties like left and right in favor start and end. That makes the class names and values appropriate for LTR and RTL without any overhead.

For example, instead of .ml-3 for margin-left, use .ms-3.

Working with RTL, through our source Sass or compiled CSS, shouldn't be much different from our default LTR though.

Customize from source

When it comes to <u>customization</u>, the preferred way is to take advantage of variables, maps, and mixins. This approach works the same for RTL, even if it's post-processed from the compiled files, thanks to <u>how RTLCSS works</u>.

Custom RTL values

Using <u>RTLCSS value directives</u>, you can make a variable output a different value for RTL. For example, to decrease the weight for \$font-weight-bold throughout the codebase, you may use the /*rtl: {value}*/ syntax:

```
$font-weight-bold: 700 #{/* rtl:600 */} !default;
```

Which would output to the following for our default CSS and RTL CSS:

```
/* bootstrap.css */
dt {
  font-weight: 700 /* rtl:600 */;
}

/* bootstrap.rtl.css */
dt {
  font-weight: 600;
}
```

Alternative font stack

In the case you're using a custom font, be aware that not all fonts support the non-Latin alphabet. To switch from Pan-European to Arabic family, you may need to use /*rtl:insert: {value}*/ in your font stack to modify the names of font families.

For example, to switch from Helvetica Neue Webfont for LTR to Helvetica Neue Arabic for RTL, your Sass code look like this:

```
$font-family-sans-serif:
  Helvetica Neue #{"/* rtl:insert:Arabic */"},
  // Cross-platform generic font family (default user interface font)
  system-ui,
  // Safari for macOS and iOS (San Francisco)
  -apple-system,
  // Chrome < 56 for macOS (San Francisco)</pre>
  BlinkMacSystemFont,
  // Windows
  "Segoe UI",
  // Android
  Roboto,
  // Basic web fallback
  Arial,
  // Linux
  "Noto Sans",
  // Sans serif fallback
  sans-serif,
  // Emoji fonts
```

LTR and RTL at the same time

Need both LTR and RTL on the same page? Thanks to <u>RTLCSS String Maps</u>, this is pretty straightforward. Wrap your @imports with a class, and set a custom rename rule for RTLCSS:

```
/* rtl:begin:options: {
  "autoRename": true,
  "stringMap":[ {
    "name": "ltr-rtl",
    "priority": 100,
    "search": ["ltr"],
    "replace": ["rtl"],
    "options": {
      "scope": "*",
      "ignoreCase": false
    }
  } ]
} */
.ltr {
 @import "../node_modules/bootstrap/scss/bootstrap";
}
/*rtl:end:options*/
```

After running Sass then RTLCSS, each selector in your CSS files will be prepended by .1tr, and .rt1 for RTL files. Now you're able to use both files on the same page, and simply use .1tr or .rt1 on your components wrappers to use one or the other direction.

Edge cases and known limitations

While this approach is understandable, please pay attention to the following:

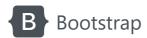
- 1. When switching .1tr and .rtl, make sure you add dir and lang attributes accordingly.
- 2. Loading both files can be a real performance bottleneck: consider some <u>optimization</u>, and maybe try to <u>load one of those files asynchronously</u>.
- 3. Nesting styles this way will prevent our form-validation-state() mixin from working as intended, thus require you tweak it a bit by yourself. See #31223.

The breadcrumb case

The <u>breadcrumb separator</u> is the only case requiring its own brand new variable— namely \$breadcrumb-divider-flipped —defaulting to \$breadcrumb-divider.

Additional resources

- RTLCSS
- RTL Styling 101



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Currently v5.0.2.

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