

Kentico 11: LESS Preprocessor

[LESS](#) is a dynamic stylesheet language that extends CSS. The features of LESS allow you to write stylesheet code that is shorter and easier to maintain.

With the **LESS preprocessor**, you can create stylesheets containing LESS syntax in Kentico 11. The system compiles the LESS code and provides the CSS output to pages that use the given stylesheets.

By default, the preprocessor uses **LESS version 1.7.5**. No newer versions of the LESS preprocessor are supported.

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Installation

To add the LESS preprocessor into your Kentico instance, copy the content of the **bin** and **CMSScripts** folders from the marketplace package into the corresponding folders in your project's **CMS** folder.

Note: If your Kentico project was installed as a *web application*:

1. Open your project in Visual Studio (using the **WebApp.sln** file).
2. Click **Show all files** at the top of the Solution Explorer.
3. Manually include the new items in the **CMSScripts** folder into the **CMSApp** project (right-click in the Solution explorer, click **Include In Project**).

You can now start creating LESS stylesheets in the Kentico administration interface using the **CSS stylesheets** application.

How the preprocessor works

When you save a LESS stylesheet, the system compiles the code into standard CSS and stores both versions.

- You work with the unprocessed LESS code in the editing interface
- Browsers always receive the plain CSS version when rendering pages that use the stylesheet

The primary compilation method is client-side, using the LESS JavaScript compiler. The preprocessor also provides a secondary server-side compiler, which has identical functionality, but slower performance.

The server-side LESS compilation is intended for scenarios where client-side processing is not possible, for example when using the API to update stylesheet code, during content staging, or when editing LESS stylesheets deployed to the file system. We recommend that you avoid the scenarios that lead to server-side LESS compilation on live production sites.

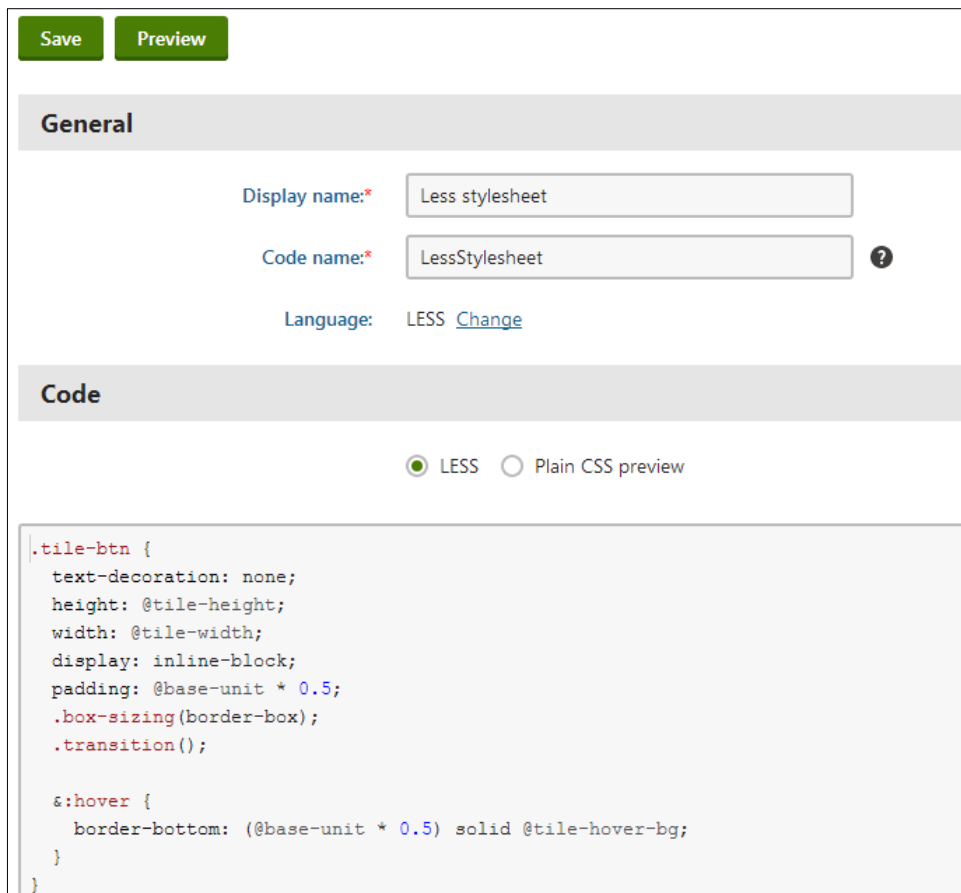
For additional information about CSS preprocessors in general, refer to [Registering CSS preprocessors](#) in the Kentico documentation.

Creating LESS stylesheets

1. Open the **CSS stylesheets** application in the Kentico administration interface.
2. Click **New CSS stylesheet**.
3. Type a **Display name** for the stylesheet.
4. Select **LESS** as the stylesheet's **Language**.
5. Write or paste the code of the stylesheet. All LESS syntax is supported.
6. Click **Save**.

You can assign the stylesheet to websites or pages using the standard approach.

Whenever you edit and save the LESS stylesheet, the system updates the internally stored CSS output accordingly.



The screenshot shows the 'New CSS stylesheet' form in the Kentico administration interface. At the top, there are two green buttons: 'Save' and 'Preview'. Below them is a 'General' section with three input fields: 'Display name:' (containing 'Less stylesheet'), 'Code name:' (containing 'LessStylesheet'), and 'Language:' (set to 'LESS' with a 'Change' link). A help icon (?) is next to the 'Code name' field. Below the 'General' section is a 'Code' section. It features two radio buttons: 'LESS' (selected) and 'Plain CSS preview'. Below the radio buttons is a text area containing LESS code for a button class.

```
.tile-btn {
  text-decoration: none;
  height: @tile-height;
  width: @tile-width;
  display: inline-block;
  padding: @base-unit * 0.5;
  .box-sizing(border-box);
  .transition();

  &:hover {
    border-bottom: (@base-unit * 0.5) solid @tile-hover-bg;
  }
}
```

LESS stylesheets support all standard stylesheet features available in Kentico, such as deployment and editing on the file system, import/export, and staging.

Tip: To preview the plain CSS output of a stylesheet's code, select the **Plain CSS preview** radio button above the editor.

Converting existing stylesheets to LESS

Warning: Always backup the stylesheet before changing the preprocessor language (in the list of stylesheets, click... and select **Clone** or **Backup**).

1. Edit the stylesheet in the **CSS stylesheets** application.
2. Click Change next to the **Language** field.
3. Select **LESS**.
4. Click **Change language**.

If the stylesheet originally used a different preprocessor (language), the system permanently converts the code to plain CSS. You can then add LESS syntax to the code or import LESS stylesheets.

Importing LESS stylesheets

You can use stylesheets to store shared LESS code, such as global variables, functions or mixins.

Use the following directive to import stylesheets into other LESS stylesheets:

```
@import "DefaultMixins";
```

The string inside the quotes must match the code name of the imported stylesheet.

Important: After modifying and saving an imported stylesheet, you also need to manually save all other stylesheets that import the given stylesheet. Otherwise the system will not transfer the changes to the final CSS output.