

DESIGN TOKENS API:

A NEW STANDARD FOR DRUPAL CORE





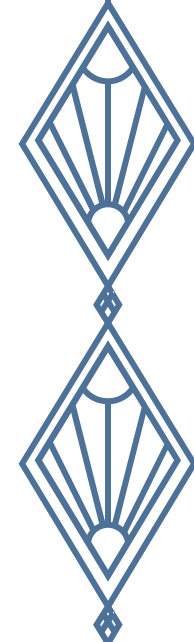
GRIMREAPER - FLORENT TORREGROSA

Tech expert

Drupaler since 2011

UI Suite founder

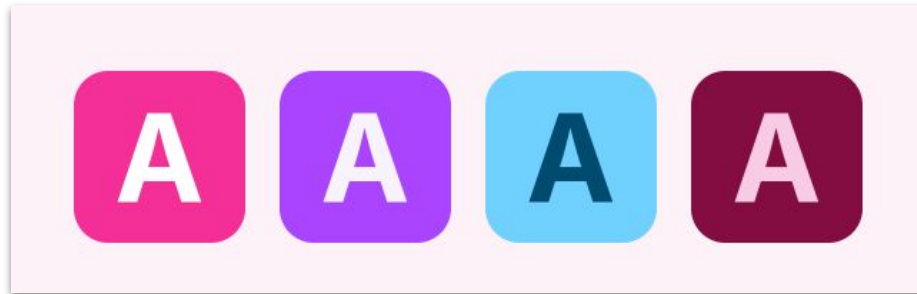
Core maintainer of Asset Library



LIFE IS GREAT...

Client with a branded design system.

Focused palette:



Everything fine until...



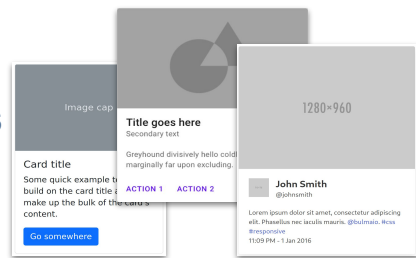
CHALLENGE ACCEPTED

How can we override a specific value in a specific scope without hurting the integrity of the design system?

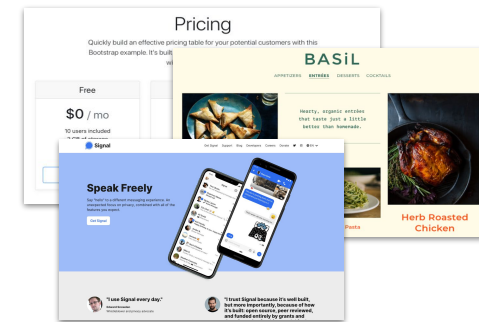
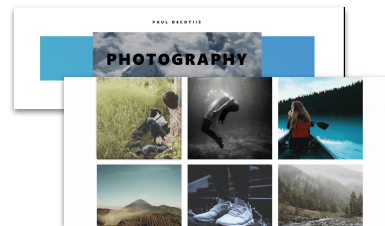


WE NEED THIS

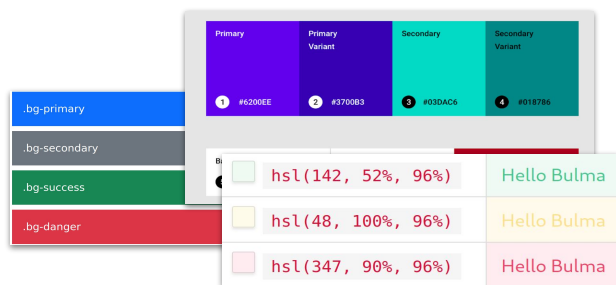
Components & variants



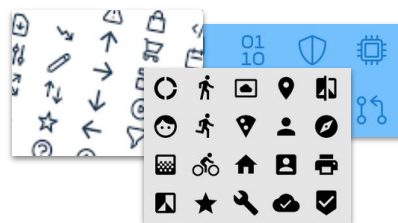
Animations & transitions



Examples

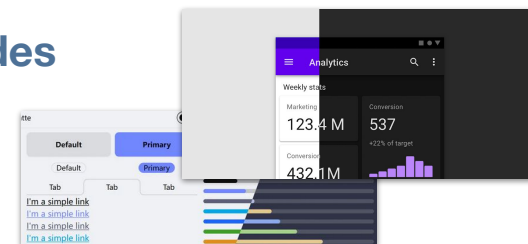


Styles utilities & helpers

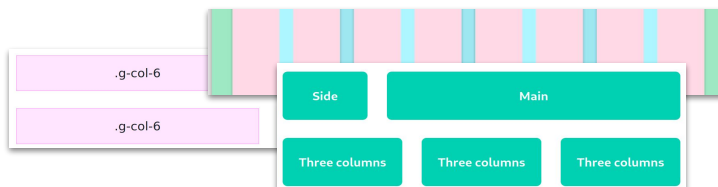


Icon packs

Themes/modes switching



Grid & layouts systems



Variables (runtime tokens)

\$blue-400	\$indigo-400	\$purple-400
\$blue-500	\$indigo-500	\$purple-500
\$blue-600	\$indigo-600	\$purple-600
\$blue-700	\$indigo-700	\$purple-700

\$weight-light	font-weight	300
\$weight-normal	font-weight	400
\$weight-medium	font-weight	500
\$weight-sembold	font-weight	600
\$weight-bold	font-weight	700

LET'S DO IT THE UI SUITE WAY 🤔

We need CSS variables...

But we need them as Drupal first class citizens, pluggable to Drupal API.

Like SDC, Icon API, the upcoming Style API...

We need **YAML plugins** to be put in theme.

01



CSS VARIABLES IN CONTRIB



AN EXPECTED MESS



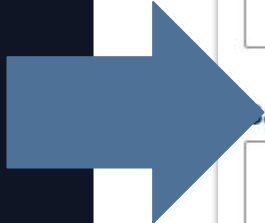
CONTRIB (1): CSSVARS

7 KNOWN INSTALLS

Config schema driven

⚠ Seems unmaintained

```
# *.schema.yml
cssvars.cssvars_example:
  label: CSS Variables Example
  type: mapping
  mapping:
    color:
      type: cssvars_color
      label: Color
    background:
      type: cssvars_color
      label: Background
    font_size:
      type: cssvars_size
      label: Font size
```



CSS Variables Example

Color

background

Font size

CONTRIB (2): CSS COLOR VARIABLES

4 KNOWN INSTALLS

Based on the Color module

⚠ Seems unmaintained

Fatal error
- \ (ツ) / -

CONTRIB (3): CSS VARIABLES CUSTOMIZER

143 KNOWN INSTALLS

```
# theme.info.yml
css_variables_customizer:
  stylesheets:
    - cssSourceFolder
    - src/css Specific File.css
```

```
/* @css-variables-customizer-category theme */
--card-media-aspect: 16/9;
--card-radius: var(--theme-radius, 0.5rem);
--card-spacing: var(--theme-spacing, 0.25rem);
/* @css-variables-customizer-category-end */
```

The screenshot shows the 'CSS variables' configuration interface. On the left, a sidebar lists 'Global' and 'Custom' categories, with 'My Custom Theme: Card' selected under 'Custom'. The main area shows a 'Theme' configuration for 'My Custom Theme: Card'. It features three variable configuration sections:

- Card media aspect (--card-media-aspect):** Selector: Value: [Add more](#)
- Card radius (--card-radius):** Selector: Value: [Add more](#)
- Card spacing (--card-spacing):** Selector: Value: [Add more](#)

At the bottom, there is a section for 'Add more variables' with a text input and a button.

More design system driven than previous modules

CONTRIB (4): UI SKINS

610 KNOWN INSTALLS

```
# *.ui_skins.css_variables.yml  
  
bs_secondary_color:  
  category: "Colors"  
  type: "ui_skins_alpha_color"  
  label: "Secondary color"  
  default_values:  
    ":root": "#212529bf"  
    "[data-bs-theme=\"light\"]":  
    "[data-bs-theme=\"dark\"]":
```

CSS variables de
No link with the C

Background colors

Colors

Grid

Shape

Text colors

Default background color

Variable: --mdc-theme-background

Scope: :root

This scope cannot be removed because it is defined in the variable declaration.

Value: [input type="text"]

Default value: #ffffff

Add new scope

Surface background color

Variable: --mdc-theme-surface

Scope: :root

This scope cannot be removed because it is defined in the variable declaration.

Value: [input type="text"]

The fortnightly

#HEADLINES #OPINION

Card body.

ACTION 1 ACTION 2

Card body.

ACTION 1 ACTION 2



CONTRIB: NOT GOOD ENOUGH

- ⚠ Different approaches.
- ⚠ Not always front dev friendly
- ⚠ Need to stay in sync with the CSS.

What can we do in Core?

Do we need a new drupalism? Can we find an industry standard format this time?

02



PROUDLY FOUND ELSEWHERE



DESIGN TOKENS



WHAT ARE DESIGN TOKENS?

FROM THE SPEC

“Indivisible pieces of a design system such as colors, spacing, typography scale.”

“A methodology for expressing design decisions in a platform-agnostic way so that they can be shared across different disciplines, tools, and technologies.”

Wait!

Who decided that?!

Which spec?!



W3C Design Token
Community Group

SO WE NEED A NEW YAML FORMAT

TO ADD IN A THEME, ALONGSIDE SDC, ICON API...

Good news, the exact same working group is proposing a standard one.

JSON, so can be expressed as YAML.

Design Tokens Format Module 2025.10

Final Community Group Report 28 October 2025



This version:

<https://www.w3.org/community/reports/design-tokens/CG-FINAL-format-20251028/>

Latest published version:

<https://www.designtokens.org>

Editors:

[Louis Chenais](#)

[Kathleen McMahon](#)

[Drew Powers](#)

[Matthew Ström-Awn](#)

[Donna Vitan](#)

FROM SIMPLE TYPES...

SIMPLE BECAUSE ATOMIC BUT CAN BE COMPLICATED

Color

Dimension

Font family

Font weight

Duration

Cubic Bézier

Number

Primary font:

```
"$value": Comic Sans MS
```

```
"$type": fontFamily
```

... TO COMPOSITE TYPES

PROPERTIES ARE SIMPLE TYPE

Stroke style

Border

Transition

Shadow

Gradient

Typography

```
"$type": typography
"$value":
  fontFamily: Roboto
  fontSize:
    value: 42
    unit: px
  fontWeight: 700
  letterSpacing:
    value: 0.1
    unit: px
  lineHeight: 1.2
```

Font family

Dimension

Number

Dimension

Number

fontFamily: Roboto

fontSize:

value: 42

unit: px

fontWeight: 700

letterSpacing:

value: 0.1

unit: px

lineHeight: 1.2

DESIGN TOKENS LOOKS NICE BUT...

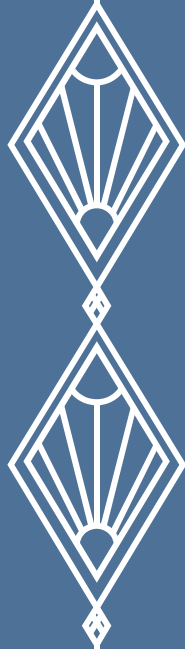
WE WANT CSS VARIABLES, REMEMBER THE 🎄 ?

Can we transform design tokens to CSS variables?

⚠️ Design tokens does not have the notion of scope!

```
:root {  
  --main-color: blue;  
}  
  
.card {  
  color: var(--main-color);  
}
```

03



FROM DRUPAL TO THE WEB



RUNTIME TOKENS



DESIGN TOKENS

RESOLVED AT BUILD TIME

Internal use. The more tokens the better.

For the Web: SASS variables, LESS variables, Tailwind @apply...



CSS VARIABLES

RESOLVED AT RUNTIME

Public API. Keep them curated.

As subset of tokens exposed to the browser.

Web only and scoped.

Extraction/Transformation

A thick, gold-colored curved arrow pointing from the Design Tokens section towards the CSS Variables section, indicating a flow or relationship between the two concepts.

CORE ISSUE

#3531854

Add a Design Tokens & CSS variables API

[View](#) [Edit](#) [View history](#)

Problem/Motivation

After SDC in Drupal 10.1 (July 2023), and the Icon API in Drupal 11.1 (Dec 2025), we are continuing to add design systems API in Core with [#3517033: Add a style utility API](#), in order to be able to build business agnostic, shareable, Drupal themes, providing design implementations which can be leveraged by display building tools.

There is a last design system API to cover the main parts of design systems: CSS variables.

Initially, we were targeting 2026, but an exciting discussion with XB's team in DrupalDevDays 2025 (they wanted a way of altering an utility while applying it) made us realise it will be beneficial to ship it alongside the Style API.

In Web implementations of design systems, CSS variables (sometimes referred as custom properties or cascading variables) are

- typed
- an (often small) **subset of the design tokens which are overridable at runtime**. So, the new value is applied by the browser and not by rebuilding the CSS.
- defined in the design system implementation (so, in the Drupal theme). Some design system are strongly branded and restrictive with their CSS variables. Other have a liberal

Needs work

Project: Drupal core

Version: main

Component: theme system

Priority: Normal

Category: Feature request

Assigned: [grimreaper](#)

Issue tags:
[TX \(Themer Experience\)](#), [11.4.0 release priority](#)

Reporter: [pdureau](#)

Created: 23 Jun 2025 at 17:27 CEST

Updated: 19 Feb 2026 at 10:06 CET

★ Following 50 followers

 53 files +4496 -0

70% LoC are tests (2026/03)

STEP 0: ADD TOKENS FILE IN THEME

*.tokens.yml

```
color:
  primary:
    "$type": color
    "$value":
      "{color.palette.violet}"
  secondary:
    "$type": color
    "$value": "{color.palette.rose}"
fontS:
  small:
    "$type": dimension
    "$value": 12px
  medium:
    "$type": dimension
    "$value": 16px
```

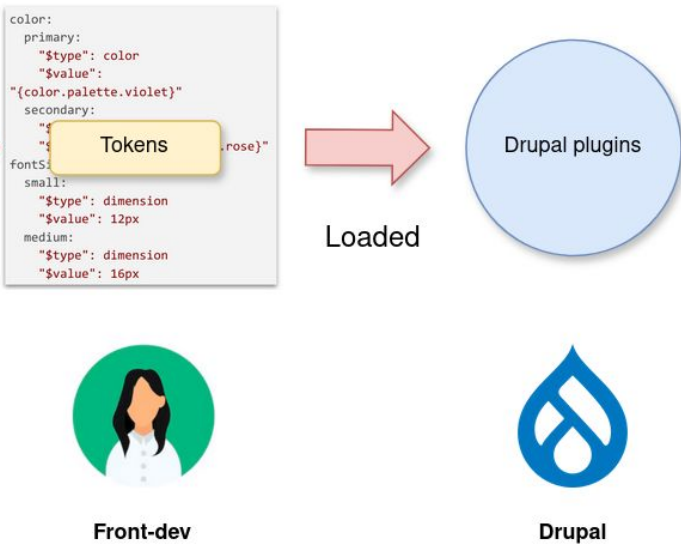
Tokens



Front-dev

```
spacing:
  "$type": dimension
  "$value":
    value: 42
    unit: px
```

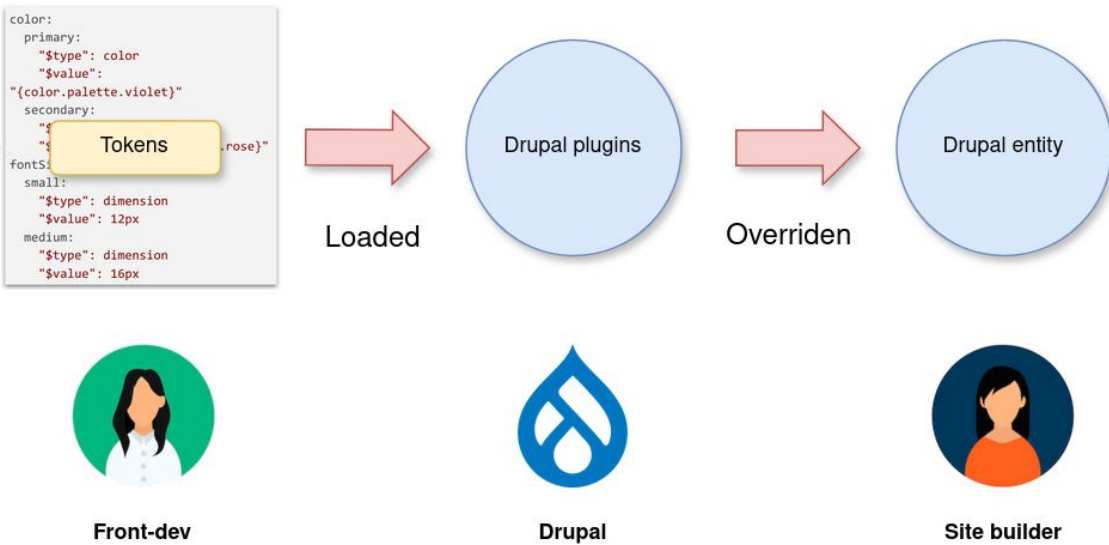
STEP 1: LOAD THEM AS DRUPAL PLUGINS



New plugin manager.
Build a tree of design token and group objects.
Design token plugins extracted from the tree.

STEP 2: CONFIG ENTITIES

Override values according to scope



```
# design_token.spacing.yml

id: spacing
path: spacing
type: dimension
scopes:
  ":root":
    value: 12
    unit: px
  "%card":
    value: 14
    unit: rem
  "%breadcrumb":
    value: 14
    unit: rem
```

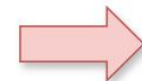
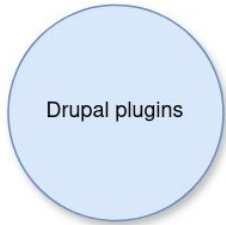
STEP 3: EXPOSE AS VARIABLES

```
color:
  primary:
    "$type": color
    "$value":
      "{color.palette.violet}"
  secondary:
    "$type": color
    "$value": "#c0392b"
font-size:
  small:
    "$type": dimension
    "$value": 12px
  medium:
    "$type": dimension
    "$value": 16px
```

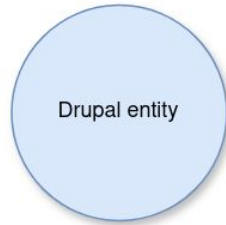
Tokens



Loaded



Overriden



Serialized

```
:root {
  --color-primary: #123456;
  --color-secondary: #c0392b;
  --font-size-medium: 16px;
}
```

CSS variables



Front-dev



Drupal



Site builder



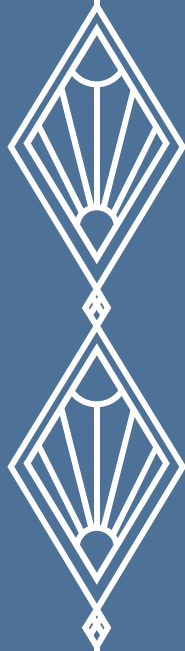
Browser

```
:root {
  --spacing: 12px;
}

.card {
  --spacing: 14rem;
}

.breadcrumb {
  --spacing: 14rem;
}
```

04



WHAT'S NEXT?



COOL STUFF



CORE ISSUE CURRENT STATE

Design token value types are also plugins.

5 currently implemented:

- Dimension
- Font family
- Font weight
- Number
- Typography

A composite one to check the format

NEXT STEPS

Core 12.0 (and 11.4)

- handle feedbacks
- other token types

Keep current scope simple and stick to the standard!

Core 12.1 (and 11.5)

- token references
- extends mechanism
- JSON schema validation

CONTRIB: UI SKINS 2

Provide UI to handle the
config entity
CSS variable injection

Home > Administration > Appearance

Design token entities ☆

+ Add design token

ID	Type
bs_body_font_size	dimension

Home > Administration > Appearance > Design token entities

Add design token ☆

ID *

bs_body_font_size ▾

Type

dimension

Scopes

Value *

7

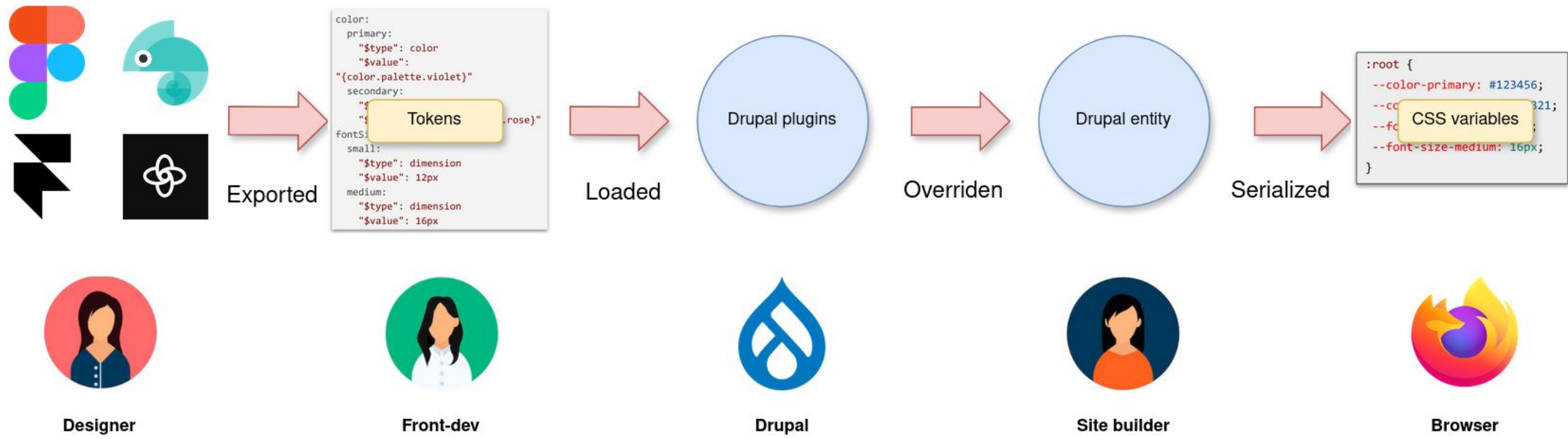
Unit *

px ▾

Save

THE FIRST FULLY AUTOMATED DESIGN SYSTEM PIPELINE

WELCOME TO THE FUTURE OF DRUPAL THEMING



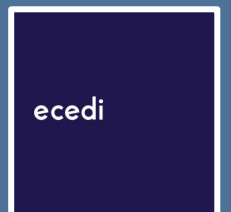
THANKS!



PLEASE EVALUATE
THE SESSION!



THANKS TO ALL
OUR SPONSORS



WANT MORE UI SUITE?



Display Builder, the
HTMX-powered visual builder by
Pierre Dureau

Today! 4pm!

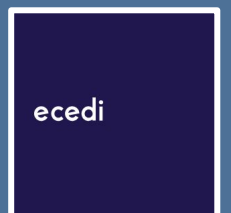
Amphi "Bleu de Sassenage"



PLEASE EVALUATE
THE SESSION!



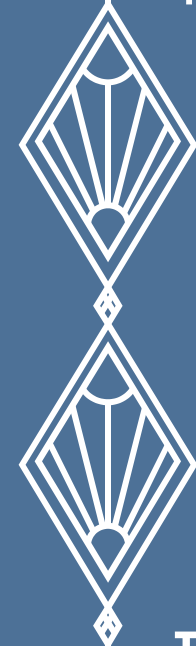
THANKS TO ALL
OUR SPONSORS



ANY QUESTIONS?



PLEASE EVALUATE
THE SESSION!



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