

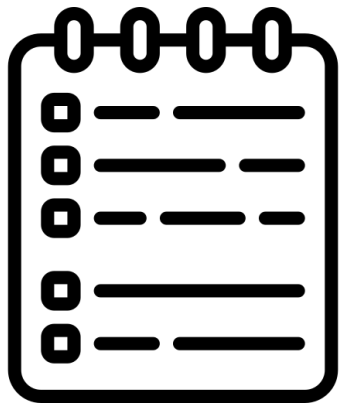
1 JAN 2025

FOSDEM'25 x X-WIKI

# Cristal - A flexible Wiki UI



Manuel Leduc, XWiki SAS



# Agenda

- #1 Organization & Team
- #2 Product
- #4 Features
- #3 Design & Architecture
- #5 Roadmap
- #6 (Live) Demo

# #1 Organization & Team

# XWiki SAS

- ✓ French & European independent company, est. 2004
- ✓ Self-funded, ~6M€ revenue in 2024
- ✓ 50%+ growth in 2024
- ✓ 70 employees in Paris and Iași (Romania)
- ✓ 2 Open Source software: **XWiki** (LGPL) & **CryptPad** (AGPL) with an international community, 100% Open Source
- ✓ Engaged for digital sovereignty in EU
- ✓ Services: Support, Training, Consulting, Hosting in the EU

# The team



**Ludovic Dubost**  
CEO & Product Owner



**Vincent Massol**  
CTO & Product Manager



**Manuel Leduc**  
Tech Lead



**Thiago Kriek**  
UX Designer



**Pierre Jeanjean**  
Developer



**Marius Dumitru Florea**  
Developer

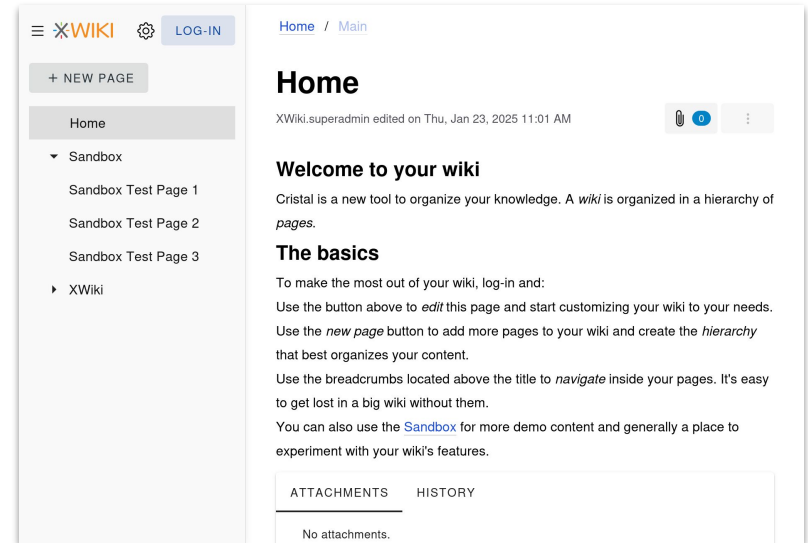


**XWiki team & XWiki Community**  
Wiki Experts

# #2 Product

# Cristal Beta 0.14

- A new project by the XWiki team
- New UI with modern technologies
- Compatible with XWiki but not only
- One release per month (0.x)



**bpi**france

Sources: [github.com/xwiki-contrib/cristal/](https://github.com/xwiki-contrib/cristal/)  
Documentation: [cristal.xwiki.org](https://cristal.xwiki.org)  
Matrix channel: [#cristal:matrix.xwiki.com](https://matrix.xwiki.com/#cristal:matrix.xwiki.com)

# Knowledge is Everywhere

Knowledge is not only in wikis, but also in other software, at least in limited way.

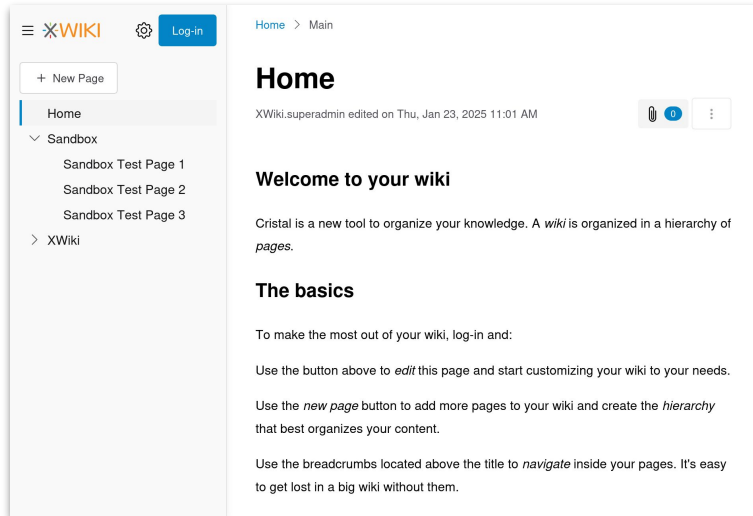
So it is important to be able **to collaborate and embed**.

1. Difference sources of knowledge
2. Knowledge base concepts and UIs
3. Migrate knowledge gradually to wikis while preserving familiar concepts and UIs

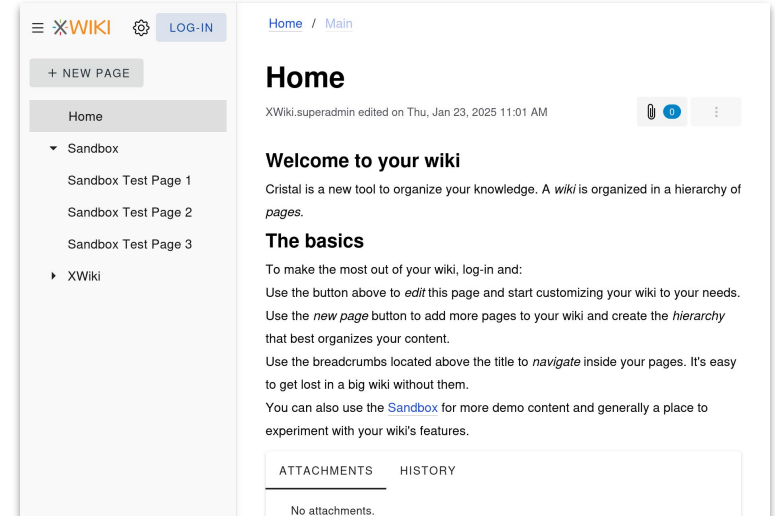




# User Interface (View)

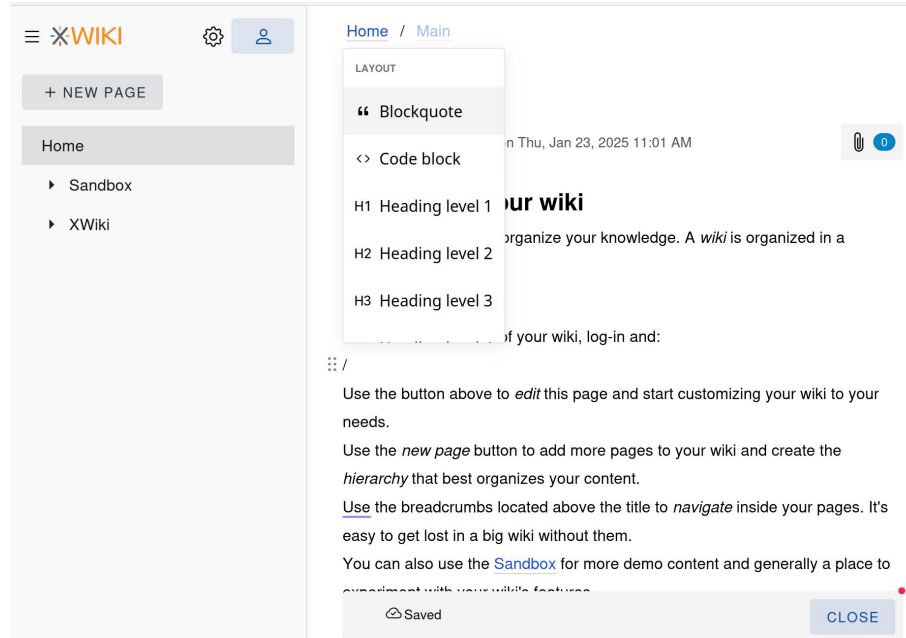


Vuetify



Shoelace

# User Interface (Edit)



Vuetify

# Key concepts



Embeddable



Modular











Adaptable





Abstract Design System

# #3 Feature

# Basic wiki features

- ✓ View and edit pages 
- ✓ Page move/rename 
- ✓ Navigation 
- ✓ Document tree 
- ✓ Breadcrumb 
- ✓ Authentication 
- ✓ History 
- ✓ View/Edit rights 

# Rich Editor

- ✓ Images
- ✓ Links with autocompletion  
- ✓ Blocks
- ✓ Slash Actions (a.k.a Quick Actions)
- ✓ Markdown serialization
- ✓ Realtime



Tiptap

# Cristal Specific



Support for several backends



Web



Electron



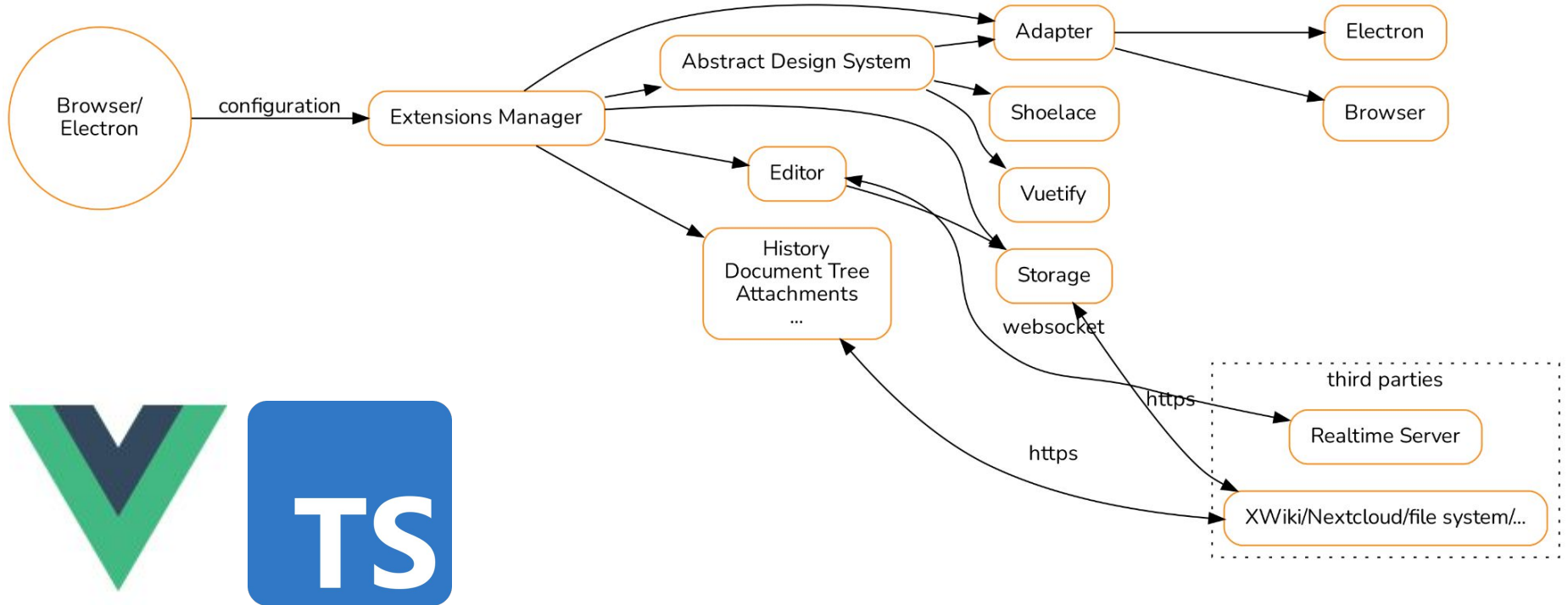
Offline Mode (prototype)



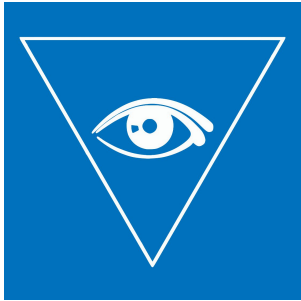
# #4 Design & Architecture



# #0 Architecture Overview



# #1 Component-based Front-End



[Inversify.js](https://inversify.io/)

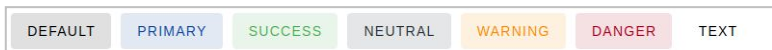
```
@injectable()
class DefaultAttachmentPreview implements AttachmentPreview {
  constructor(
    @inject("StorageProvider") private readonly storageProvider: StorageProvider
  ) {}

  // ...
}
```

- Decoupling between usage and implementation
- Allows feature discovery
- Allows feature replacement

# #2 Abstract Design System

## Vuetify



- Type Safe usage and definition through well defined UI components APIs
- Possibility to add new design systems by extension

## Shoelace

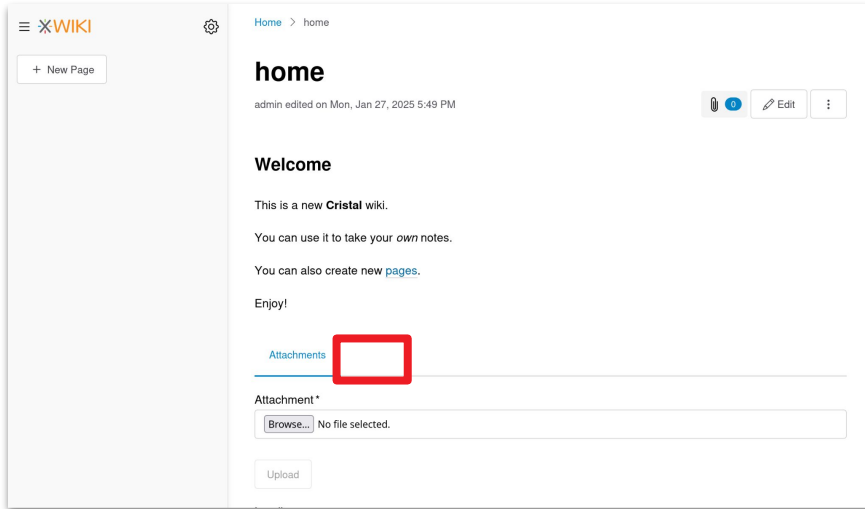


```
<x-btn variant="success">  
  Success  
</x-btn>
```

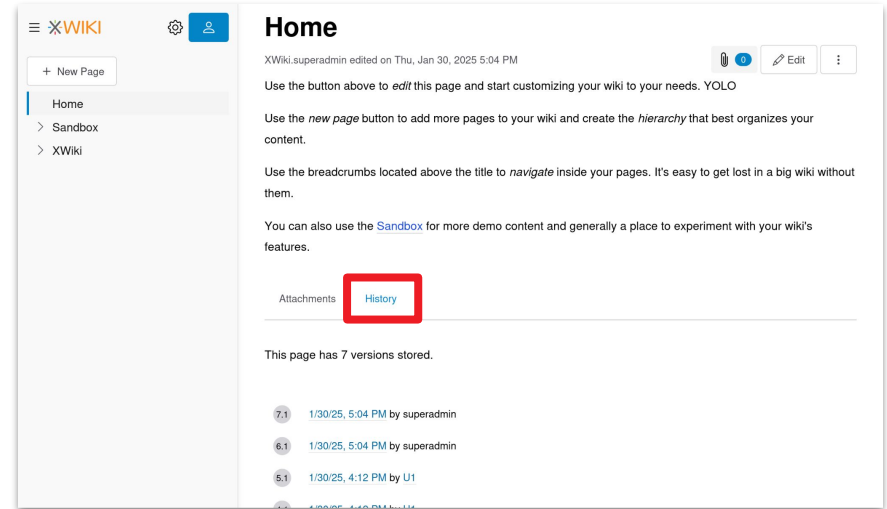
```
type BtnProps = {  
  variant?:  
    | "default"  
    | "primary"  
    | "success"  
    //...  
};
```

<https://cristal.xwiki.org/xwiki/bin/view/UIComponents/>

# #3 Backend Specific UI



Nextcloud



XWiki

# #5 Roadmap

# #5.1 MVP Finalization

- Ongoing (v0.15) <https://cristal.xwiki.org/xwiki/bin/view/Roadmaps/>
  - Search
  - Offline mode for all backends
  - Page Source editing
- Planned
  - Users management
  - Rights management
  - Support for more syntaxes
  - Client side Macro support
  - Comments



# #5.2 Post MVP

- Extracting the editor
- Structured data editing
- Scripting
- Support for XWiki legacy (extensions, skins, xwiki syntax, server side macros...)
- Embedding (Nextcloud, Jamespot)

# #6 (Live) Demo



# Cristal (frontend)

<https://cristal.demo.xwiki.com/>

# XWiki (backend)

<https://cristal-backend.demo.xwiki.com/>

# Electron

<https://cristal.xwiki.org/xwiki/bin/view/GetStarted/#HDesktop>

Join the after party!  
SCAN TO REGISTER

FOSDEM'25 x X-WIKI



POWERED BY



# Thank you everyone!

See you at the K1-B-3 stand

[cristal.xwiki.org](https://cristal.xwiki.org)