Cristal

One Wiki UI to rule them All

L. Dubost & M. Leduc, XWiki SAS
Agenda

- Cristal Team
- Product vision
- Design Proposal
- Technical Architecture
- Current Status & Roadmap
Who we are?
Cristal Team

Ludovic Dubost, CEO, Founder of XWiki

Vincent Massol, CTO

Manuel Leduc, Tech Lead Cristal

Thiago, UX Designer

With the support of the rest of the XWiki Development Team.
XWiki SAS

- French & European independent company, est. 2004
- Self-funded, ~4M€ revenue in 2023
- 50%+ growth in 2023
- 60 employees in Paris and Iasi (Romania)
- Two Open Source softwares: 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
Product Vision
Technological Shifts

- Javascript getting more and more mature
- Better Frameworks
- Standards have evolved (Web Components, JSON-LD, Solid)
- New paradigms: realtime, offline
- Convergence in the field of Wikis (also Doc Mngt, Collaborative Work)
A more modular future

“Building on layers is going to be an approach that matters .. it enables tremendous innovation”
— Jitsi Founder Emil, FOSDEM 2022

- Integrations between different Open Source software are key (openDesk)
- Possibility to integrate Wiki UIs in other tools
A opportunity to fund that work

- A French call for “Cloud Collaborative Suites” allowed us to propose this work for funding
- We won as part of 2 consortia supporting the Cristal Work
- Including Collaboration for the Partners to include Cristal
One UI supporting multiple backends

Cristal Wiki UI

Embeddable

Desktop

Extensible

Web

Mobile

Common Data Model (JSON-LD)

Offline Storage

XWiki

NextCloud

File System (Local)

CryptPad (e2ee)

GitHub, other...
Some key concepts

- Slick UI with modern editor and commands
- Multi-backends including Local
- Offline and Realtime
- WCAG by default, Web Components, Sustainability
- Available as Web, Desktop (and later mobile)
- Extensible and Configurable Application
- Strong Editor:
  - State of the Art Wiki page (markdown+): Prose Mirror, Milkdown, TipTap
  - Advanced integration (using / commands)
  - Structured data/Semantic Wiki (XWiki / Notion)
Use cases

- Desktop or Web tool
  - Your wiki UI for markdown files in NextCloud, GitHub or Git
  - Your local note taking app
- Modernization of XWiki (new UI)
- Embeddable as Web Components
- Or even your Wiki view on all your Wikis
- A e2ee Wiki for CryptPad
A new Wiki UI to rule them All
Design Proposal
This Document's Title

My text

XWiki is the best tool to organize your knowledge. A wiki is organized in a hierarchy of pages. You can create multiple wikis, each with its own set of pages.

XWiki can be used as a knowledge base (support, documentation, sales, etc.), for collaborative workspaces or even as a complete intranet.
Abstract Design System

- Switch Design System by configuration
- No custom code
- We did some perf tests: Shoelace is the fastest
Abstract Design System

Abstract

Shoelace

My text

open source

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Abstract Design System

Abstract

Vuertify
Abstract Design System

Abstract

My text

open source

Wiki is the best tool to organize your knowledge. A wiki is organized in a hierarchy of pages. You can create multiple wikis, each with its own set of pages.

Wiki can be used as knowledge base for business, documentation, sales, etc., for collaborative workspaces or even as a complete intranet.

But also, NextCloud theme, etc.
A Technical View
Technological Stack

https://cristal.xwiki.org/xwiki/bin/view/Main/TechnologicalChoices/
Modules
Key Aspects

A lot of crosscuting aspects to consider, test and document:

- Accessibility
- Artifacts size
- Performance
- Localization
- Inversion of Control
- Standard based (JSON-LD, Web Components...)
- Documentation
Artifacts we will deliver

Developers

- Abstract Design System library (Web Components)
- A set of connectors
- Javascript Wiki Syntax renderer
- Cristal Extension SDK
- Cristal Embedding SDK (Web Components/Vue.js)

End Users

- XWiki Front-end Replacement
- Electron standalone editor
Status

- Prototype of Extensible Architecture using IoC
  - Architecture of Plugins, Skin & User Interface Extension
- XWiki and Markdown renderers, Client Macro renderers architecture
- Choice of Design System Libraries (Shoelace, Vuetify, DSFR)
- Design work
- Prototype of UI for basic View with GitHub and XWiki backends
- First tests for Editor UIs: Milkdown, TipTap
- Project Infrastructure (build, tests, etc..)

Code: https://github.com/xwiki-contrib/cristal
Roadmap

- **2024**: Basic Wiki with key backends
  - Release for NextCloud/GitHub version/Local
  - 50% of XWiki Features available
- **2025**:
  - 75% of XWiki Features available (incl. structured data)
  - Bundled in XWiki
- **2026**:
  - Plugin repository for live extensions
  - Plugin development
  - CryptPad Release
Thanks!

https://cristal.xwiki.org/

- Extensible
- Embeddable
- Customizable

We hire! https://xwiki.com/en/company/jobs/

https://fosstodon.org/@xwikiorg/