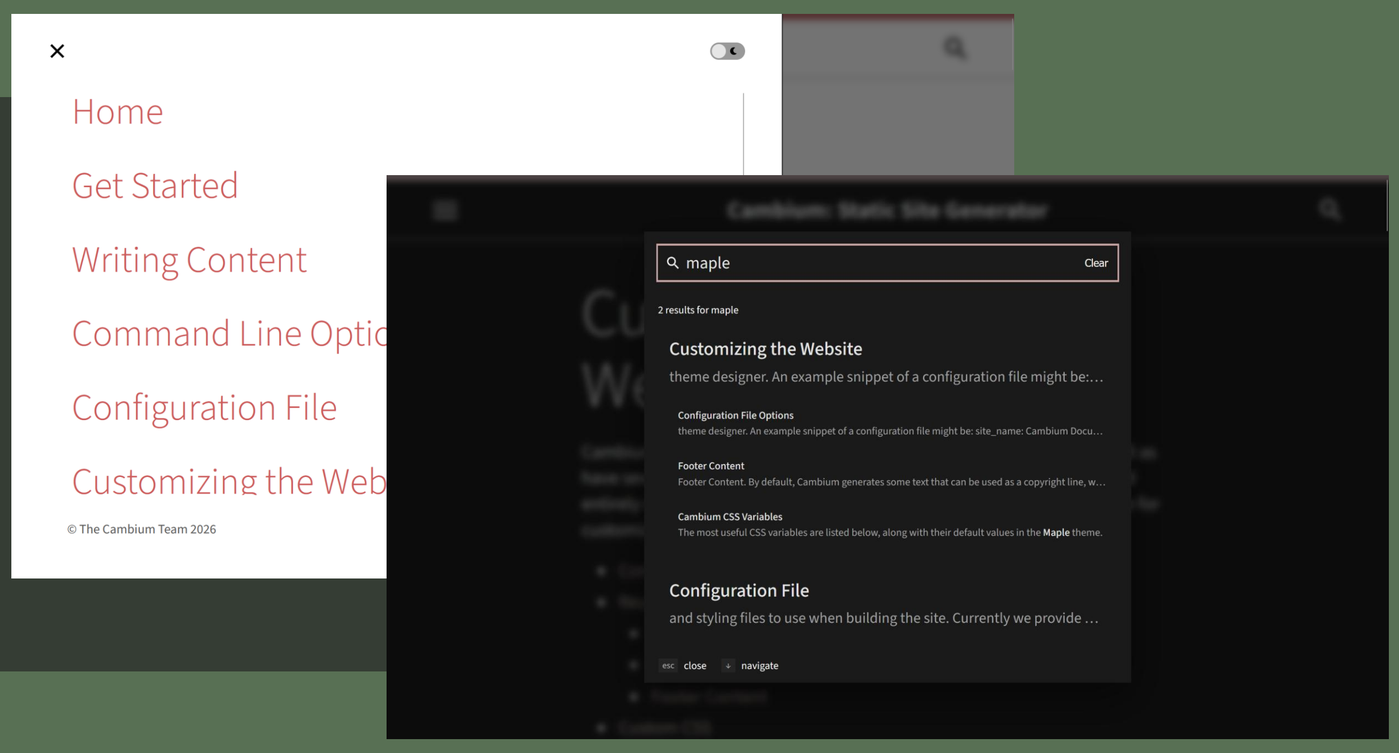
Free your team's knowledge with Cambium

A static site generator for scientific documentation

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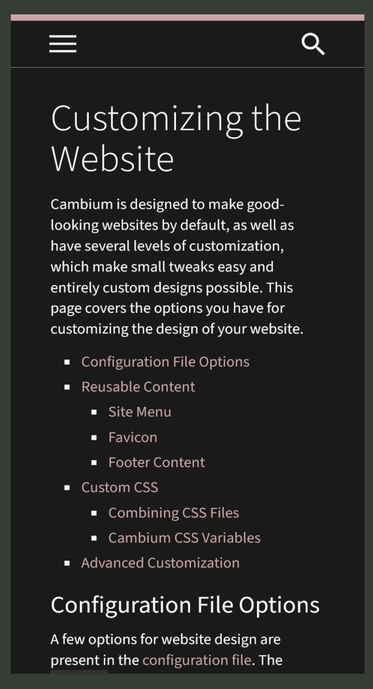
Astronomy has an enormous wealth of information, compute power, and human drive, but the field often lacks the ability to connect these together in an efficient way. Efforts to coordinate technical and logistical information within and across scientific teams are often wildly disparate, require significant overhead, or force scientists to conform to structures not relevant to their needs.

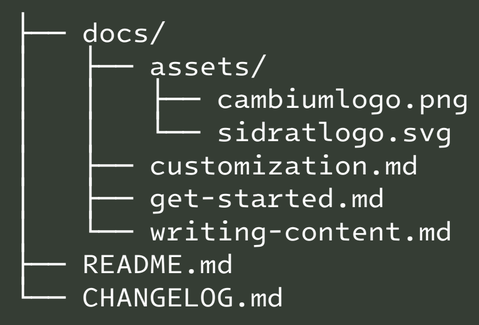
Cambium is a static site builder focused on communication within and by scientific and technical teams. It converts Markdown files into a static website that can be hosted anywhere, without any special server setup. We designed Cambium to make information accessible and presentable with the least amount of hassle.

What is Cambium For?

Team Wikis

Cambium was first built to act as the infrastructure behind an internal knowledgebase, for use by a team with a range of technical capabilities. Here, Cambium handles only a specific subset of tasks: building legible Markdown documents into hostable HTML. Collaboration can be done via Git, and hosting with a static website.

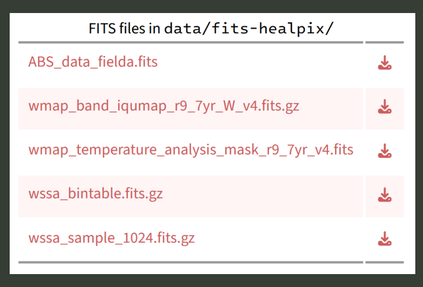




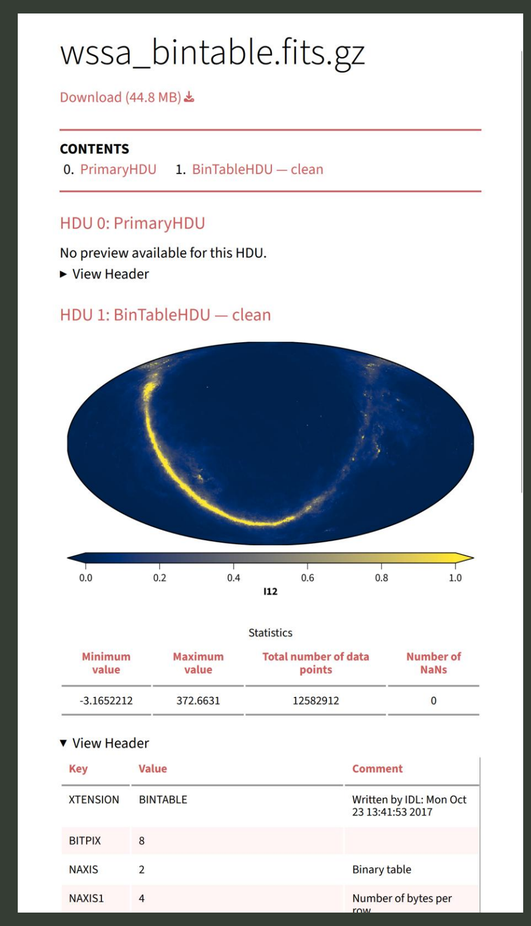
The Cambium documentation is written in Markdown – with the addition of some of Cambium's special features.

Sharing Data

Between FTP servers with long file listings, and data release papers with minted DOIs, there is a gap in the ability to easily share astronomical data files. Cambium bridges that gap by providing not only a static website where files can be linked to along with handwritten descriptions, but also a previewing system, which makes critical information accessible before a file is downloaded.



Cambium core includes CSV previews. FITS preview pages are provided with the additional Cambium Astro package.



Cambium Astro can also autogenerate tables of FITS files, embedded into any Markdown document with a macro.

Whatever You Need

Cambium is built to be extensible in any number of ways. From the specific options exposed in the optional configuration file, to including custom CSS with your preferred colourscheme, to writing whole new processes and integrations in additional Python packages, Cambium provides the skeleton for nearly anything you need to build.

Convert ReStructured Text instead of Markdown	Replace the `TransformMarkdown` stage
Use completely custom styling	Use a custom theme, or CSS with the Blank theme
Inject page-specific data like word counts	Write and call a macro
Show custom previews for specific FITS files	Add a custom `FITSPreviewer`

How Does Cambium Work?

Cambium runs in phases: a setup, some main work phases, and a finalization.

Setup

Cambium performs configuration management, identifies all the relevant files, and sets up a temporary directory.

Work Phases

Pre-Hook → Transformation → Post-Hook

All processing of content is performed by user-selected "stages" that Cambium calls. Stages can run request to hooks on individual files, which are executed here. The different hook types provide some high-level ordering and structure to the types of processes being done.

Finalize

Cambium copies processed files from the temporary directory to the build directory, and adds unprocessed theme and asset files.

The setup and finalization are primarily housekeeping and copying files, the actual process of converting Markdown content into a website is done by stages and takes place within the work phases. Each stage can optionally process data during any of the work phases, but some are done earlier than others. For example, `PreviewCSV` writes Markdown files early on as a pre-hook, these are converted to HTML by `TransformMarkdown`, and then placed into the theme-provided template by `TemplateMarkdown`'s post-hook.

What's Next?

We are actively building our roadmap of features to include in Cambium and have many ideas for what we want to see. Future releases will include readymade configurations for hosting with GitHub pages and ReadTheDocs, additional themes and customization, and grouping pages by tags or categories. **Cambium is a living project, and its direction is shaped by our needs and the needs of the community** – let us know what features would bring you to try out Cambium!

SIDRAT RESEARCH

buildwithcambium.org