Abimkdocs: the new infrastructure for writing ABINIT documentation and tutorials

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In this talk, I will describe the new documentation system of ABINIT and the different technologies employed to facilitate the creation of new content and the automatic generation of the HTML version.

Most of the ABINIT documentation is now written in Markdown, a lightweight markup language with plain text formatting syntax. In addition to the basic markdown syntax, the ABINIT documentation supports extensions and shortcuts to ease the inclusion of hyperlinks, bibliographic citations in bibtex format as well as LaTeXequations thanks to the MathJax JavaScript library.

The website is automatically generated with MkDocs a static site generator geared towards project documentation. MkDocs employs Python-Markdown to parse the Markdown documentation and uses a single Yaml configuration file (*mkdocs.yml*) defining the organization of the pages on the website. The website uses Mkdocs-Material, a theme built using Google's Material Design guidelines. Navigation bars, header and footer are generated automatically by the framework using the Jinja template engine.

As a net result, ABINIT developers can write nice-looking documentation without having to use HTML explicitly while working in an environment that is well-integrated with the other parts of the package (the python database of input variables, the ABINIT test suite with the corresponding input and output files, the file with bibtex citations). Adding new content is straightforward: write a new page in Markdown, register the new entry in *mkdocs.yml* and finally regenerate the website with the *mksite.py* python script.