

# Documents and presentations with org-mode

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The Changelog

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# Outline

- 1 About org-mode exporting
- 2 Beamer slides with org-mode
- 3 Interactive Slides
- 4 Miscellaneous

# The Emacs series

This is fifth in a [series on Emacs and org-mode](#).

This blog post was generated from [an org-mode source](#) and is available as: [a blog page](#), [slides \(PDF format\)](#), and a [PDF document](#).

# Section 1

## About org-mode exporting

# Background

org-mode isn't just an agenda-making program. It can also export to lots of formats:  $\text{\LaTeX}$ , PDF, Beamer, iCalendar (agendas), HTML, Markdown, ODT, plain text, man pages, and more complicated formats such as a set of web pages.

This isn't just some afterthought either; it's a core part of the system and integrates very well. One file can be source code, automatically-generated output, task list, documentation, and presentation, all at once.

Some use org-mode as their preferred markup format, even for things like  $\text{\LaTeX}$  documents. The org-mode manual has an extensive [section on exporting](#).

# Getting started

From any org-mode document, just hit `C-c C-e`. From there will come up a menu, letting you choose various export formats and options. These are generally single-key options so it's easy to set and execute. For instance, to export a document to a PDF, use `C-c C-e l p` or for HTML export, `C-c C-e h h`.

There are lots of settings available for all of these export options; see the manual. It is, in fact, quite possible to use  $\text{\LaTeX}$ -format equations in both  $\text{\LaTeX}$  and HTML modes, to insert arbitrary preambles and settings for different modes, etc.

# Add-on packages

ELPA contains many additional exporters for org-mode as well. Check there for details.

## Section 2

# Beamer slides with org-mode



# About Beamer

Beamer is a  $\text{\LaTeX}$  environment for making presentations. Its features include:

- ▶ Automated generating of structural elements in the presentation (see, for example, [the Marburg theme](#)). This provides a visual reference for the audience of where they are in the presentation.
- ▶ Strong help for structuring the presentation
- ▶ Themes
- ▶ Full  $\text{\LaTeX}$  available

# Benefits of Beamer in org-mode

org-mode has a lot of benefits for working with Beamer. Among them:

- ▶ org-mode's very easy and strong support for visualizing and changing the structure makes it very quick to reorganize your material.
- ▶ Combined with org-babel, live source code (with syntax highlighting) and results can be embedded.
- ▶ The syntax is often easier to work with.

I have completely replaced my usage of LibreOffice/Powerpoint/GoogleDocs with org-mode and beamer. It is, in fact, rather frustrating when I have to use one of those tools, as they are nowhere near as strong as org-mode for visualizing a presentation structure.

# Headline Levels

org-mode's Beamer export will convert sections of your document (defined by headings) into slides. The question, of course, is: *which* sections? This is governed by the H [export setting](#) (org-export-headline-levels).

There are many ways to go, which suit people. I like to have my presentation like this:

```
#+OPTIONS: H:2
#+BEAMER_HEADER: \AtBeginSection{\frame{\sectionpage}}
```

This gives a standalone section slide for each major topic, to highlight major transitions, and then takes the level 2 (two asterisks) headings to set the slide. Many Beamer themes expect a third level of indirection, so you would set H:3 for them.

# Themes and settings

You can configure many Beamer and  $\text{\LaTeX}$  settings in your document by inserting lines at the top of your org file. This document, for instance, defines:

```
#+TITLE: Documents and presentations with org-mode
#+AUTHOR: John Goerzen
#+BEAMER_HEADER: \institute{The Changelog}
#+PROPERTY: comments yes
#+PROPERTY: header-args :exports both :eval never-export
#+OPTIONS: H:2
#+BEAMER_THEME: CambridgeUS
#+BEAMER_COLOR_THEME: default
```

# Advanced settings

I like to change some colors, bullet formatting, and the like. I round out my document with:

```
# We can't just +BEAMER_INNER_THEME: default because that picks the theme default.
# Override per https://tex.stackexchange.com/questions/11168/change-bullet-style-formatting-
#+BEAMER_INNER_THEME: default
#+LaTeX_CLASS_OPTIONS: [aspectratio=169]
#+BEAMER_HEADER: \definecolor{links}{HTML}{0000A0}
#+BEAMER_HEADER: \hypersetup{colorlinks=,linkcolor=,urlcolor=links}
#+BEAMER_HEADER: \setbeamertemplate{itemize items}[default]
#+BEAMER_HEADER: \setbeamertemplate{enumerate items}[default]
#+BEAMER_HEADER: \setbeamertemplate{items}[default]
#+BEAMER_HEADER: \setbeamercolor*{local structure}{fg=darkred}
#+BEAMER_HEADER: \setbeamercolor{section in toc}{fg=darkred}
#+BEAMER_HEADER: \setlength{\parskip}{\smallskipamount}
```

Here, aspectratio=169 sets a 16:9 aspect ratio, and the remaining are standard  $\text{\LaTeX}$ /Beamer configuration bits.

# Shrink (to fit)

Sometimes you've got some really large code examples and you might prefer to just shrink the slide to fit.

Just type `C-c C-x p`, set the `BEAMER_opt` property to `shrink=15`.

(Or a larger value of shrink). The previous slide uses this here.

# Result

Here's the end result:

Beamer slides with org-mode

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## Section 3

### Interactive Slides



# Interactive Emacs Slideshows

With the [org-tree-slide package](#), you can display your slideshow from right within Emacs. Just run `M-x org-tree-slide-mode`. Then, use `C->` and `C-<` to move between slides.

You might find `C-c C-x C-v` (which is `org-toggle-inline-images`) helpful to cause the system to display embedded images.

# HTML Slideshows

There are a lot of ways to export org-mode presentations to HTML, with various levels of JavaScript integration. See the [non-beamer presentations section](#) of the org-mode wiki for details.

## Section 4

### Miscellaneous

## Additional resources to accompany this post

- ▶ [orgmode.org beamer tutorial](#)
- ▶ [L<sup>A</sup>T<sub>E</sub>X](#) wiki
- ▶ [Generating section title slides](#)
- ▶ [Shrinking content to fit on slide](#)
- ▶ A [great](#) resource: [refcard-org-beamer](#)
  - ▶ See its [Github repo](#)
  - ▶ Make sure to check out both the PDF and the .org file
- ▶ A nice [Theme matrix](#)

Up next in my Emacs series...

mu4e for email!