

# Slides + Manual + programs generated from single org-mode source

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2013-03-28 jeu.

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## 1 Intro

### 1.1

#### 1.1.1 Maintaining several output formats with a single source

I've been writing a single source .org file to be able to generate different contents, only changing a few switches :

- slides deck
- a manual document
- source files for examples

The slides may contain Notes (see below/besides).

- **Notes :**  
The babel / tangling is not detailed too much here. See the docs... nothing fancy.

## 2 Principle

...

### 2.1

#### 2.1.1 Choosing the $\text{\LaTeX}$ class for export

The export can generate  $\text{\LaTeX}$  for either :

- an *article* document, which will typically look like a manual
- or a *beamer* slides deck.

This is specified with a `#+LaTeX_CLASS:` specification in org-mode, so we can have an optional inclusion of sub org files defining this class along with a few other settings.

We will then respectively load a `inc-article.org` or `inc-slides.org` depending on the chosen mode, which will apply at loading and export time, using a `#+SETUPFILE:` definition.

See this header definition :

```
# Activate the wanted output mode (by prefixing with '#+SETUPFILE: ') the following for
#+SETUPFILE: inc-article.org
```

```
# Or on the contrary, this one for a slides deck :
#+ inc-slides.org
```

As such, the manual will be rendered.

### 2.1.2 Slides output formats

The slides deck can be rendered for different formats (corresponding include file, see below) :

- regular set of slides (`\include{inc-traditional-slides}`)
- slides with presenter notes on the second screen (meant for multi screen and impressive) (`\include{inc-impressive-slides-notes}`)
- handout page with presenter notes (`\include{inc-handout-presenter-notes}`)
- handout page for audience with note taking space (`\include{inc-handout-public}`)

This will be selected by selecting one of the 4 predefined  $\text{\LaTeX}$  files with appropriate definitions through a :

```
#+BEAMER_HEADER_EXTRA: \include{inc-...}
```

## 3 How to

...

### 3.1 Files layout

...

### 3.1.1 Files layout

- Main source: `latex-multi.org`
- Startup/Export selected includes:
  - `inc-article.org`
  - `inc-slides.org`
- Slides layout selected includes:
  - `inc-traditional-slides.tex`
  - `inc-impressive-slides-notes.tex`
  - `inc-handout-presenter-notes.tex`
  - `inc-handout-public.tex`

Plus generated files for the minted examples “tangled” from the `latex-multi.org` file with `M-x org-babel-tangle`

## 3.2 org source

### 3.2.1 Options (`#+OPTIONS`):

The `#+OPTIONS`: for the  $\text{\LaTeX}$  export needs `tags:nil`. For instance :

```
#+OPTIONS: TeX:t LaTeX:t skip:nil d:nil todo:t pri:nil tags:nil
```

### 3.2.2 Slides mode output format selection

Select the chosen layout by placing the `+BEAMER_HEADER_EXTRA:` in front of the chosen include:

```
#--- First variant : traditional slides in PDF without notes (evince, etc.)  
#+BEAMER_HEADER_EXTRA: \include{inc-traditional-slides}
```

```
#--- Second variant : PDF with notes on second screen, for impressive  
# \include{inc-impressive-slides-notes}
```

```
#--- Third variant : 4 slides per page in A4 landscape mode with notes for the presenter  
# \include{inc-handout-presenter-notes}
```

```
#--- Fourth variant : 3 per page plus space for note taking on A4  
# \include{inc-handout-public}
```

The following is required for some of these, too :

```
#+BEAMER_HEADER_EXTRA: \usepackage{pgfpages}
```

### 3.2.3 Slides sections/subsections TOCs

In slides mode, we generate sections/subsections TOCs with additional frames added at the beginning of sections or subsections

```
#+BEAMER_FRAME_LEVEL: 3
```

```
...
```

```
* section1
```

```
\frame{\tableofcontents[currentsection,subsectionstyle=hide]}
```

```
** subsection 1
```

```
\frame{\tableofcontents[currentsection,subsectionstyle=show/shaded/hide]}
```

```
*** slide 1
```

```
...
```

## 3.3 inc-\*.org files

### 3.3.1 inc-article.org contents

```
#+STARTUP: showall
```

```
#+LaTeX_CLASS: article
```

```
#+LaTeX_CLASS_OPTIONS: [11pt]
```

```
#+LaTeX_HEADER: \usepackage{beamerarticle}
```

### 3.3.2 inc-slides.org contents

```
#+STARTUP: beamer
```

```
#+LaTeX_CLASS: beamer
```

## 3.4 inc-\*.tex files

### 3.4.1 inc-traditional-slides.tex

```
%-- First variant : traditional slides in PDF without notes (evince, etc.)
\documentclass[presentation]{beamer}
\setbeameroption{hide notes}
```

---

### 3.4.2 inc-impressive-slides-notes.tex

```
%-- Second variant : PDF with notes on second screen, for impressive (remove the #impressive below)
\documentclass[presentation]{beamer}
%\setbeamertemplate{note page}[plain]
\setbeameroption{show notes}
\setbeameroption{show notes on second screen=right}
% \setbeameroption{show only notes}
```

---

### 3.4.3 inc-handout-presenter-notes.tex

```
%-- Third variant : 4 slides per page in A4 landscape mode with notes for the presenter
\documentclass[10pt, green, handout, notes=show]{beamer}

\usepackage{handoutWithNotes}
\setbeameroption{show notes}
%\setbeamertemplate{note page}[plain]
\pgfpagesuselayout{4 on 1}[a4paper, landscape, border shrink=5mm]
\pgfpageslogicalpageoptions{1}{border code=\pgfusepath{stroke}}
\pgfpageslogicalpageoptions{2}{border code=\pgfusepath{stroke}}
\pgfpageslogicalpageoptions{3}{border code=\pgfusepath{stroke}}
\pgfpageslogicalpageoptions{4}{border code=\pgfusepath{stroke}}
%\pgfpagesuselayout{3 on 1 with notes}[a4paper, border shrink=5mm]
```

---

### 3.4.4 inc-handout-public.tex

```
%-- Fourth variant : 3 per page plus space for note taking on A4
\documentclass[handout]{beamer}

\usepackage{handoutWithNotes}
\pgfpagesuselayout{3 on 1 with notes}[a4paper, border shrink=5mm]
\pgfpageslogicalpageoptions{1}{border code=\pgfusepath{stroke}}
\pgfpageslogicalpageoptions{2}{border code=\pgfusepath{stroke}}
\pgfpageslogicalpageoptions{3}{border code=\pgfusepath{stroke}}
%\pgfpageslogicalpageoptions{4}{border code=\pgfusepath{stroke}}
%\pgfpageslogicalpageoptions{5}{border code=\pgfusepath{stroke}}
%\pgfpageslogicalpageoptions{6}{border code=\pgfusepath{stroke}}
```

---

## 3.5 Miscelanous

### 3.5.1 Mask table of contents titles in article layout

The following is needed, for instance for the french babel, to replace the table of contents title generated by the `\frame{\tableofcontents...}` added for the slides mode, when in article mode.

```
# Mask the table of contents of the frames included in the section/subsections in the a
#+LaTeX_HEADER: \addto\captionsfrench{%
#+LaTeX_HEADER: \renewcommand*{\contentsname}{}%
#+LaTeX_HEADER: }
```

Or more simply when not with babel package (replace ‘...’ by nothing):

```
#+LaTeX_HEADER: \renewcommand{\contentsname}{...}
```