

Org mode syntax example

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Contents

This is an Org mode document.

Org mode is a easy-to-write *plain text* formatting syntax for authoring L^AT_EX documents, creating Web pages and much more!

```
<script src="http://platform.twitter.com/widgets.js"></script>
<a href="https://twitter.com/share" class="twitter-share-button" data-
via="f_niessen">Tweet</a>
```

Basics

Biggest heading

New chapter.

Bigger heading

New section.

Big heading New sub-section.

Text breaks A single newline has no effect. This line is part of the same paragraph.

But an empty line
demarcates paragraphs.

By entering two consecutive backslashes, you can force to break lines without starting a new paragraph.

For an horizontal line, insert at least 5 dashes: this is some text above
an horizontal rule

and some text below it.

Numbered headings You can create numbered headings up to a certain level by setting an option:

`#+OPTIONS: H:4`

Text width

One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin. He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections. The bedding was hardly able to cover it and seemed ready to slide off any moment. His many legs, pitifully thin compared with the size of the rest of him, waved about helplessly as he looked.

Lists

Org markup allows you to create bulleted or numbered lists. It allows any combination of the two list types.

Unordered lists

Itemized lists are marked with bullets. They are convenient to:

- organize data, and
- make the document
 - prettier, and
 - easier to read.

Create them with a minus or a plus sign.

Ordered lists

Enumerated lists are marked with numbers or letters:

1. First element
 - (a) First sub-item

- (b) Last sub-item
- 2. Second element

You can have ordered lists with jumping numbers:

- 1. First
- 2. Second
- 5. Jump to 5th

Definition lists

Definition list List containing definitions.

Term to define Explication of the term.

Checkboxes

- ☐ First item not checked
- ☐ Second item half done
 - ☐ Another first
 - ☐ Another second
- ☒ Third item checked

Miscellaneous effects

Include Org files

You can include another Org file and skip its title by using the `:lines` argument to `#+INCLUDE`:

```
#+INCLUDE: chapter1.org :lines "2-"
```

File inclusion, through `INCLUDE` keywords, is an **export-only feature**.

Inline HTML

You can include raw HTML in your Org documents and it will get kept as HTML when it's exported. XXX

Text can be preformatted (in a fixed-width font). It is especially useful for more advanced stuff like images or tables where you need more control of the HTML options than Org mode actually gives you.

Similarly, you can incorporate JS or do anything else you can do in a Web page (such as importing a CSS file).

You can create named classes (to get style control from your CSS) with:

```
#+begin_info
*Info example* \\
Did you know...
#+end_info
```

You can also add interactive elements to the HTML such as interactive R plots.

Finally, you can include an HTML file verbatim (during export) with:

```
#+INCLUDE: file.html html
```

Don't edit the exported HTML file!

Inline L^AT_EX

You can also use raw L^AT_EX. XXX

Text can be preformatted (in a fixed-width font).

Centered text

This text is centered!

Code blocks

Line numbers

Both in `example` and in `src` snippets, you can add a `-n` switch to the end of the `begin` line, to get the lines of the example numbered.

```
1 (defun org-xor (a b)
2   "Exclusive or."
```

If you use a `+n` switch, the numbering from the previous numbered snippet will be continued in the current one:

```
3 (if a (not b) b))
```

In literal examples, Org will interpret strings like `(ref:name)` as labels, and use them as targets for special hyperlinks like `[[name]]` (i.e., the reference name enclosed in single parenthesis). In HTML, hovering the mouse over such a link will remote-highlight the corresponding code line, which is kind of cool.

You can also add a `-r` switch which removes the labels from the source code. With the `-n` switch, links to these references will be labeled by the line numbers from the code listing, otherwise links will use the labels with no parentheses. Here is an example:

```
1 (save-excursion ;
2 (goto-char (point-min))) ;
```

In line 1, we remember the current position. Line 2 jumps to `point-min`.

Output

The output from the **execution** of programs, scripts or commands can be inserted in the document itself, allowing you to work in the *reproducible research* mindset.

Text A one-liner result:

```
date +"%Y-%m-%d"
```

```
2014-03-15
```

Graphics Data to be charted:

Code:

```
plot(data, type="b", bty="l", col=c("#ABD249"), las=1, lwd=4)
grid(nx=NULL, ny=NULL, col=c("#E8E8E8"), lwd=1)
legend("bottom", legend=c("Degrees"), col=c("#ABD249"), pch=c(19))
```

The resulting chart:

Month	Degrees
1	3.8
2	4.1
3	6.3
4	9.0
5	11.9
6	15.1
7	17.1
8	17.4
9	15.7
10	11.8
11	7.7
12	4.8

../../images/Rplot.png

R code block

```
library(ggplot2)
summary(cars)
```

Plot:

```
library(ggplot2)
qplot(speed, dist, data = cars) + geom_smooth()
```

Inline code

You can also evaluate code inline as follows: `1 + 1` is `.`

Notes at the footer

It is possible to define named footnotes¹, or ones with automatic anchors².

Formatting text

Text effects

Emphasize (italics), **strongly** (bold), and ***very strongly*** (bold italics).

Markup elements could be nested: this is *italic text which contains underlined text within it*, whereas this is normal underlined text.

Markup can span across multiple lines, by default **no more than 2**:

This is not bold

Other elements to use sparingly are:

- monospaced typewriter font for `inline code`
- monospaced typewriter font for `verbatim text`
- ~~deleted text~~ (vs. inserted text)
- text with^{superscript} (for example: `m/s{2}` gives m/s²)
- text with_{subscript} (for example: `H_{2}O` gives H₂O)

¹Extensively used in large documents.

²Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Quotations

Use the `quote` block to typeset quoted text.

Let us change our traditional attitude to the construction of programs: Instead of imagining that our main task is to instruct a computer what to do, let us concentrate rather on explaining to human beings what we want a computer to do.

The practitioner of literate programming can be regarded as an essayist, whose main concern is with exposition and excellence of style. Such an author, with thesaurus in hand, chooses the names of variables carefully and explains what each variable means. He or she strives for a program that is comprehensible because its concepts have been introduced in an order that is best for human understanding, using a mixture of formal and informal methods that reinforce each other.

— Donald Knuth

A short one:

Everything should be made as simple as possible, but not any simpler – Albert Einstein

In a `verse` environment, there is an implicit line break at the end of each line, and indentation and vertical space are preserved:

Everything should be made as simple as possible,
but not any simpler – Albert Einstein

Typically used for quoting passages of an email message:

» This is an email message with "nested" quoting. Lorem ipsum
dolor sit amet,
» consectetur adipiscing elit. Aliquam hendrerit mi posuere
lectus.
» Vestibulum enim wisi, viverra nec, fringilla in, laoreet vitae,
risus.
>
> Donec sit amet nisl. Aliquam semper ipsum sit amet velit.
Suspendisse id sem
> consectetur libero luctus adipiscing.

Itemized or unordered lists (`ul`):

- This is the first list item.
- This is the second list item.

Enumerated or ordered Lists (`ol`):

1. This is the first list item.
2. This is the second list item.

Maybe an equation here?

See <http://www.google.com/> for more information...

Spaces

Using non-breaking spaces.

Insert the Unicode character 00A0 to add a non-breaking space. FIXME
Or add/use an Org entity?

Mathematical formulae

You can embed \LaTeX math formatting in Org mode files using the following syntax:

- For **inline math** expressions, use `\(...\)`: x^2 or $1 < 2$.
It's *not* advised to use the constructs `$...$` (both for Org and MathJax).
- Centered display equation (the *Euler theorem*):

$$\int_0^\infty e^{-x^2} dx = \frac{\sqrt{\pi}}{2}$$

The use of `\[...\]` is for mathematical expressions which you want to make **stand out, on their own lines**.

\LaTeX allows to inline such `\(...\)` constructs (*quadratic formula*):

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Double dollar signs (`$$`) should not be used.

- The *sinus theorem* can then be written as the equation:

$$\frac{\sin \alpha}{a} = \frac{\sin \beta}{b} \quad (1)$$

- See Equation 2,

$$n_{i+1} = \frac{n_i(d-i)(e-1)}{(i+1)} \quad (2)$$

Only captioned equations are numbered

- Other alternative: use

or(= the verbose form of the `\[...]` construct). $M-q$ does not fill those.

Differently from `$...$` and `...`, an equation environment produces a **numbered** equation to which you can add a label and reference the equation by (label) name in other parts of the text. This is not possible with unnumbered math environments (`$$`, `...`).

Special characters

Some of the widely used special characters (converted from text characters to their typographically correct entities):

Accents

À Á

Punctuation

Dash: – —

Marks: ¡ ¸

Quotations: « »

Miscellaneous: ¶ º

Commercial symbols

Property marks: © ®

Currency: ¢ € ¥ £

Greek characters

The Greek letters α , β , and γ are used to denote angles.

Math characters

Science: \pm \div

Arrows: \rightarrow \rightarrow \leftarrow \leftrightarrow \Rightarrow \Leftarrow \Leftrightarrow

Function names: arccos cos

Signs and symbols: • ★

Misc

Suits: ♣ ♠

Comments

It's possible to add comments in the document.

Tables

You can create tables with an optional header row (by using an horizontal line of dashes to separate it from the rest of the table).

Table 1: An example of table		
Header 1	Header 2	Header 3
Top left	Top middle	Right
Bottom left	Bottom middle	

Columns are automatically aligned:

- Number-rich columns to the right, and
- String-rich columns to the left.

If you want to override the automatic alignment, use `<r>`, `<c>` or `<l>`.

Table 2: Table with alignment

1	2	3
right	center	left
XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX

Placement:

a	b
1	2

XXX Different from the following:

a	b
1	2

Align tables on the page

Here is a table on the left side:

a	b	c
1	2	3
4	5	6

The noindent just gets rid of the indentation of the first line of a paragraph which in this case is the table. The hfill adds infinite stretch after the table, so it pushes the table to the left.

Here is a centered table:

a	b	c
1	2	3
4	5	6

And here's a table on the right side:

a	b	c
1	2	3
4	5	6

Here the hfill adds infinite stretch before the table, so it pushes the table to the right.

Images, video and audio

Images

You can insert **image** files of different **formats** to a page:

	HTML	PDF
gif	yes	
jpeg	yes	
png	yes	
bmp	(depends on browser support)	

In-line picture:

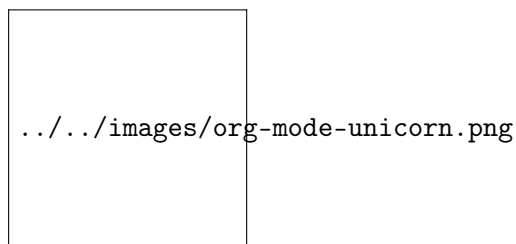


Figure 1: Org mode logo

Direct link to just the Unicorn picture file.

XXX Available HTML image tags include:

- align
- border
- bordercolor
- hspace
- vspace
- width
- height
- title
- alt

Place images side by side: XXX

Video

Videos can't be added directly but you can add an image with a link to the video like this:

<http://www.youtube.com/watch?v=YOUTUBEVIDEOIDHERE>

Sounds

Special text boxes

Simple box ("inline task"): XXX

Example

You can have **example** blocks.

Find entries with an **exact phrase** – To do this, put the phrase in quotes:

"hd ready"

You can create several other boxes (**info**, **tip**, **note** or **warning**) which all have a different default image.

Info

An info box is displayed as follows:

Info example

Did you know...

Tip

A tip box is displayed as follows:

Tip example

Try doing it this way...

Note

A note box is displayed as follows:

Note example

This is a useful note...

Warning

A warning box is displayed as follows:

Warning example

Be careful! Check that you have...

Links

Anchors

Links generally point to an headline.

They can also point to a link anchor in the current document or in another document.

Hyperlinks

This document is available in plain text, HTML and PDF.

The links are delimited by `[square brackets]`.

Internal links See:

- chapter Links
- section Anchors
- target in the document

External links See the Org mode Web site.

Mailto link

Org miscellaneous

Dates

Timestamps: *[2014-01-16 Thu]* and *<2014-01-16 Thu>*.

DONE Buy GTD book

ONLINE

By default, DONE actions will be collapsed.

Note that I should probably implement that default behavior only for ARCHIVE'd items.

TODO Read GTD book

SCHEDULED: <2014-09-11 Thu>

By default, **all** (active) entries will be expanded at page load, so that their contents is visible.

That can be changed by adding such a line (into your Org document):

```
#+HTML_HEAD: <script> var HS_STARTUP_FOLDED = true; </script>
```

TODO Apply GTD methodology

DEADLINE: <2014-12-01 Mon>

This section will be collapsed when loading the page because the entry has the value `hsCollapsed` for the property `:HTML_CONTAINER_CLASS:.`

Powerful, no?

Some note

COMPUTER:WRITE

You can add tags to any entry, and highlight all entries having some specific tag by clicking on the buttons made accessible to you in the "Dashboard".

Weekly review

COMPUTER

Now, you can even make your weekly review in the HTML export... Press the **r** key to start entering the "review mode" where all but one active entry are collapsed, so that you can really focus on one item at a time!

Org macros

Find more macros on GitHub.

BigBlow addons

The string `fixme` (in **upper case**) gets replaced by a "Fix Me!" image:
FIXME Delete this...