Spine, Doc Reform
- SiSU Markup

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1. Introduction to SiSU Markup

1.1. Summary

This is the D version of the program sisu on which the markup it uses is based.

SiSU source documents are plaintext (UTF-8) files

All paragraphs are separated by an empty line.

Markup is comprised of: markup-summary *

at the top of a document, the document header made up of semantic meta-data about the document and if desired additional processing instructions (such an instruction to automatically number headings from a particular level down)

followed by the prepared substantive text of which the most important single characteristic is the markup of different heading levels, which define the primary outline of the document structure. Markup of substantive text includes:

- heading levels defines document structure
- text basic attributes, italics, bold etc.
- grouped text (objects), which are to be treated differently, such as code blocks or poems.
- footnotes/endnotes
- linked text and images
- paragraph actions, such as indent, bulleted, numbered-lists, etc.

1.2. Markup Rules, document structure and metadata requirements

minimal content/structure requirement, minimum being:

metadata

```
title: "SiSU Spine"
subtitle: "Markup"
creator:
  author: "Amisah, Ralph"
```

levels

---

1From sometime after SiSU 0.58 it should be possible to describe SiSU markup using SiSU, which though not an original design goal is useful.

2files should be prepared using UTF-8 character encoding
structure rules (document hierarchy, heading levels):
there are two sets of heading levels ABCD (title & parts if any) and 123 (segment & subsegments if any)
sisu has the following levels (that may be described as document parts, headings and subheadings):

A~ [title (& author)]
- document root, required once (== 1)
- followed by part B~ or level 1~
- often written in the form:
  A~ @title @creator
  where title and creator are taken from the document header
B~ [part]
- part B is followed by a part C~ if there is one or level 1~
C~ [subpart]
- part C is followed by a part D~ if there is one or level 1~
D~ [subsubpart]
- part D is followed by level 1~
1~ [heading, segment (chapter)]
- level 1 required at least once (>= 1)
- is followed by level 2~ or
  by text which can then be followed
  - by more text or by levels 1~ or 2~ (or relevant part)
  - level 1 in html (and epub) is the basis of a document segment and in a book would correspond to a chapter
2~ [sub-heading]
- followed by level 3~ or
- by text which can then be followed
  by more text or by levels 1~, 2~ or 3~ (or relevant part)
3~ [sub-sub-heading]
- followed by text which can be followed
  by more text or by levels 1~, 2~ or 1~ (or relevant part)

Rules:
- level A~ is mandatory, it is the (document root and) title
- there can only be one document root == level/part A~
- heading levels B,C,D, are optional and there may be several of each (where all three are used corresponding to e.g. Book, Part, Section)
- sublevels that are used must follow each other sequentially (alphabetically),
- heading levels A~ B~ C~ D~ are followed by other heading levels rather than substantive text
- which may be the subsequent sequential (alphabetic) heading part level
- or a heading (segment) level 1~
- there must be at least one heading (segment) level 1~
  (the level on which the text is segmented, in a book would correspond
to the Chapter level)
- additional heading levels 1~ 2~ 3~ are optional and there may be several
  of each
- heading levels 1~ 2~ 3~ are followed by text (which may be followed by
  the same heading level)
  and/or the next lower numeric heading level (followed by text)
  or indeed return to the relevant part level
  (as a corollary to the rules above substantive text/ content
  must be preceded by a level 1~ (2~ or 3~) heading)

1.3. Markup Examples

1.3.1. Online

Markup examples are available in the form of prepared texts that were written under
creative commons license that permit re-publication.

There is of course this document, which is provided with the program and provides a
cursory overview of sisu markup. Running sisu spine against it gives an overview of
the output produced by the program.
2. Markup of Headers

The document header is based on yaml, and is the part of the document preceding the document root marked by “A [Document title & author]”

The document header contains either: semantic meta-data about the document, or processing instructions.

Note: the first line of a document may include information on the markup version used in the form of a comment. Comments within the header section are the hash symbol at the start of a line (and as the first character in a line of text) followed by a space and the comment:

```
# in the header section of a document, this would be a comment
```

2.1. Sample Header

This current document is loaded by a master document that has a header similar to this one:

```
# SiSU 8.0

title:
  main: "SiSU"
  subtitle: "Markup"

creator:
  author: "Amissah, Ralph"

date:
  created: "2002-08-28"
  issued: "2002-08-28"
  available: "2002-08-28"
  published: "2008-05-22"
  modified: "2020-04-11"

rights:
  copyright: "Copyright (C) Ralph Amissah 2007, 2020"
  license: "AGPL 3 (part of SiSU Spine documentation)"

classify:
  topic_register: "electronic documents:SiSU:document:markup;SiSU:document:markup;SiSU:manual:→
                 markup;electronic documents:SiSU:manual:markup"
  subject = "ebook, epublishing, electronic book, electronic publishing, electronic document, ←
            electronic citation, data structure, citation systems, search"
```

Looking back a bit:

```
# SiSU master 8.0

title:
  main: "SiSU"
```
2.2. Available Headers

Header tags appear at the beginning of a document and provide meta information on the document (such as the Dublin Core), or information as to how the document as a whole is to be processed. All header instructions take the form headernamename: or on the next line and indented by two spaces subheadernamename: All Dublin Core meta tags are available

@identifier: information or instructions

where the “identifier” is a tag recognised by the program, and the “information” or “instructions” belong to the tag/identifier specified

Note: a header where used should only be used once; all headers apart from [title] are optional; the [structure] header is used to describe document structure, and can be useful to know.

This is a sample header

# SiSU 8.0
title:
  main: "SiSU"
  subtitle: "Markup"
  language: "English"

creator:
  author: [Lastname, First names]
  illustrator: [Lastname, First names]
  translator: [Lastname, First names]
  prepared_by: [Lastname, First names]

date:
  created: [year or yyyy-mm-dd]
  issued: [year or yyyy-mm-dd]
  available: [year or yyyy-mm-dd]
  published: [year or yyyy-mm-dd]
  modified: [year or yyyy-mm-dd]
  valid: [year or yyyy-mm-dd]
  added_to_site: [year or yyyy-mm-dd]
  translated: [year or yyyy-mm-dd]

rights:
  copyright: "Copyright (C) [Year and Holder]"
  license: "[Use License granted]"
  text: "[Name, Year]"
  translation: "[Name, Year]"
  illustrations: "[Name, Year]"

# check rest

classify:
  subject: "electronic citation, data structure, citation systems, search"
  keywords: "list"
  loc: "[Library of Congress classification]"
  dewey: "[Dewey classification]"

identifier:
  isbn: "[ISBN]"
  oclc: ""

links:
  [  
    "(SiSU )https://www.sisudoc.org",  
    "( FSF )https://www.fsf.org",  
  ]
| make: | auto_num_top_at_level: "1"
| substitute: [ | "[$\{2\}(\text{sisudoc})]", "www.sisudoc.org" ] |
| bold: | "Debian|SiSU" # [regular expression of words/phrases to be made bold]
| italics: | "Linux|GPL|\LaTeX|SQL" # [regular expression of words/phrases to italicise]
| breaks: | "new=:\text{B}; break=:\text{I}" |
| home_button_text: | "(\text{SiSU})https://sisudoc.org; (\text{sources / git})https://git.sisudoc.org/gitweb/" |
| footer: | "(\text{SiSU})https://sisudoc.org; (\text{git})https://git.sisudoc.org" |
| headings: | text to match for each level |
| (e.g. PART; Chapter; Section; Article; or another: none; BOOK|FIRST|SECOND; none; CHAPTER;) |
3. Markup of Substantive Text

3.1. Heading Levels

Heading levels are :A :B :C 1 2 3 ... :A - :C being part / section headings, followed by other heading levels, and 1 - 6 being headings followed by substantive text or sub-headings. :A usually the title :A ? conditional level 1 heading (used where a stand-alone document may be imported into another)

:A [heading text] Top level heading [this usually has similar content to the title [title] ] NOTE: the heading levels described here are in 0.38 notation, see heading

:B [heading text] Second level heading [this is a heading level divider]

:C [heading text] Third level heading [this is a heading level divider]

1 [heading text] Top level heading preceding substantive text of document or sub-heading 2, the heading level that would normally be marked 1. or 2. or 3. etc. in a document, and the level on which sisu by default would break html output into named segments, names are provided automatically if none are given (a number), otherwise takes the form 1 my_filename_for_this_segment

2 [heading text] Second level heading preceding substantive text of document or sub-heading 3 , the heading level that would normally be marked 1.1 or 1.2 or 1.3 or 2.1 etc. in a document.

3 [heading text] Third level heading preceding substantive text of document, that would normally be marked 1.1.1 or 1.1.2 or 1.2.1 or 2.1.1 etc. in a document

3.2. Font Attributes

markup example:

normal text, *(emphasis)*, !(bold text)! , /(italics)/, _(underscore)_ , "{citation}" , "(superscript)" , ,(subscript), , +(inserted text)†, -(strikethrough)-, #(monospace)#

normal text

*(emphasis)* [note: can be configured to be represented by bold, italics or underscore]

!(bold text)!

/(italics)/

_(underscore)_
"{citation}"
"{superscript}"
,{subscript},
*{inserted text}*
-{strikethrough}-
#{monospace}#

**resulting output:**

normal text, **emphasis**, **bold text**, *italics*, _underscore_, "{citation}"**, superscript, subscript, inserted text, strikethrough, monospace

normal text

**emphasis** [note: can be configured to be represented by bold, italics or underscore]

**bold text**

*italics*

_underscore_

"{citation}"

**superscript**

**subscript**

**inserted text**

**strikethrough**

**monospace**

3.3. Indentation and bullets

**markup example:**

ordinary paragraph

_1 indent paragraph one step
_2 indent paragraph two steps
_9 indent paragraph nine steps

**resulting output:**

ordinary paragraph

indent paragraph one step
indent paragraph two steps
indent paragraph nine steps

**markup example:**

_* bullet text
_1* bullet text, first indent
_2* bullet text, two step indent

**resulting output:**

bullet text
bullet text, first indent
bullet text, two step indent

Numbered List (not to be confused with headings/titles, (document structure))

**markup example:**

# numbered list numbered list 1., 2., 3, etc.
_# numbered list numbered list indented a., b., c., d., etc.

### 3.4. Hanging Indents

**markup example:**

_0_1 first line no indent (no hang),
rest of paragraph indented one step

_1_0 first line indented,
rest of paragraph no indent

in each case level may be 0-9

**resulting output:**

first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step; first line no indent, rest of paragraph indented one step;

A regular paragraph.
first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent first line indented, rest of paragraph no indent

in each case level may be 0-9

**live-build** A collection of scripts used to build customized Debian Livesystems. *live-build* was formerly known as live-helper, and even earlier known as live-package.

**live-build**
A collection of scripts used to build customized Debian Livesystems. *live-build* was formerly known as live-helper, and even earlier known as live-package.

### 3.5. Footnotes / Endnotes

Footnotes and endnotes are marked up at the location where they would be indicated within a text. They are automatically numbered. The output type determines whether footnotes or endnotes will be produced

**markup example:**

```
~( a footnote or endnote )~
```

**resulting output:**

3

**markup example:**

```
normal text ~( self contained endnote marker & endnote in one )~ continues
```

**resulting output:**

normal text continues

**markup example:**

```
normal text ~(* unnumbered asterisk footnote/endnote, insert multiple asterisks if required )~
```

```
~(** another unnumbered asterisk footnote/endnote )~ continues
```

\[3\] a footnote or endnote
\[4\] self contained endnote marker & endnote in one
resulting output:

normal text * unnumbered asterisk footnote/endnote, insert multiple asterisks if required continues

normal text ** another unnumbered asterisk footnote/endnote continues

markup example:

normal text ~[* editors notes, numbered asterisk footnote/endnote series ]~ continues

normal text ~[+ editors notes, numbered plus symbol footnote/endnote series ]~ continues

resulting output:

normal text [* editors notes, numbered asterisk footnote/endnote series ] continues

normal text [+ editors notes, numbered plus symbol footnote/endnote series ] continues

[discontinued] Alternative binary endnote notation (endnote pair) for footnotes/endnotes:

% note the endnote marker "~^"

normal text~~ continues

^~ endnote text following the paragraph in which the marker occurs

standard (inline) and pair (binary) notation could not be mixed in the same document.

The reason binary notation was provided as an option was for the conversion of documents to sisu markup. Many documents were prepared in such a way that endnotes had been previously marked up in a binary fashion, and this provided a convenient and faster way to make the document conversion, just reflect those markup practices. The reason it has been dropped is it adds a slowing step to something that needs to be done at most once and it prove to be flakey, unnecessarily so even when kept under version control. It is preferable to do a two step conversion of the previously marked up document to sisu: first to the binary/paired footnote markup, then; convert it to the proper form of inline endnote markup with a dedicated helper conversion program, keeping the resulting properly marked up text.

3.6. Links

3.6.1. Naked URLs within text, dealing with urls

urls found within text are marked up automatically. A url within text is automatically
hyperlinked to itself and by default decorated with angled braces, unless they are contained within a code block (in which case they are passed as normal text), or escaped by a preceding underscore (in which case the decoration is omitted).

**markdown example:**

```
normal text https://www.sisudoc.org/ continues
```

**resulting output:**

normal text 「https://www.sisudoc.org/」 continues
An escaped url without decoration

**markdown example:**

```
normal text _https://www.sisudoc.org/_ continues
deb _https://www.jus.uio.no/sisu/archive unstable main non-free
```

**resulting output:**

normal text _https://www.sisudoc.org/_ continues
deb _https://www.jus.uio.no/sisu/archive unstable main non-free
where a code block is used there is neither decoration nor hyperlinking, code blocks are discussed later in this document

**resulting output:**

```
deb https://www.jus.uio.no/sisu/archive unstable main non-free
deb-src https://www.jus.uio.no/sisu/archive unstable main non-free
```

### 3.6.2. Linking Text

To link text or an image to a url the markup is as follows

**markdown example:**

```
about { SiSU }https://url.org markup
```

**resulting output:**

about 「SiSU」 markup
a couple of test urls
A shortcut notation is available so the url link may also be provided automatically as a footnote:

**markup example:**

```plaintext
about (~^ SiSU )https://url.org markup
```

**resulting output:**

about

```plaintext
~SiSU
```

Internal document links to a named (anchor) tagged location, including named headings named inline anchor tags `an-inline-anchor-tag` or an ocn the heading:

```plaintext
~markup Markup
```

can be linked to as follows:

```plaintext
to find out more see { Markup }#markup
```

to find out more see Markup

an inline anchor tag is made with the following markup internal-links

```plaintext
named inline anchor tags `~an-inline-anchor-tag`
```

and linked to the same way

```plaintext
the link { an inline anchor tag }#an-inline-anchor-tag
```

the link an inline anchor tag or to another part of the document: markup summary

**markup example:**

```plaintext
about { text links }#link_text
```

**resulting output:**
about text links

Shared document collection link

**markup example:**

```mermaid
about { SiSU book markup examples }:SiSU/examples.html
```

**resulting output:**

about { SiSU book markup examples }:SiSU/examples.html

### 3.6.3. Linking Images

**markup example:**

```mermaid
{ sm_tux.png 64x80 }image
% various url linked images

{sm_tux.png 64x80 "a better way" }https://www.sisudoc.org/

{sm_GnuDebianLinuxRubyBetterWay.png 100x101 "Way Better - with Gnu/Linux, Debian and Ruby" }←
https://www.sisudoc.org/

{~^ sm_ruby_logo.png "Ruby" }https://www.ruby-lang.org/en/
```

**resulting output:**

sm_tux.png,w64h80

sm_tux.png,w64h80

sm_tux.png,w64h80 “test”

---

5 "https://www.sisudoc.org/"
“Gnu/Linux - a better way”

“Way Better - with Gnu/Linux, Debian and Ruby”

“Ruby”

"D for me"

"D, hey no fair"

**linked url footnote shortcut**

```markdown
{~^[text to link]\}https://url.org
% maps to: { [text to link]\}https://url.org ~(https://url.org)~
% which produces hyper-linked text within a document/paragraph, with an endnote providing the url for the text location used in the hyperlink
```

Note at a heading level the same is automatically achieved by providing names to headings 1, 2 and 3 i.e. 2[name] and 3[name] or in the case of auto-heading numbering, without further intervention.

### 3.6.4. Link shortcut for multiple versions of a sisu document in the same directory tree

**markup example:**

```
(!_ {"Viral Spiral"}/, David Bollier
```

https://github.com/dlang-community/d-mans
3.7. Grouped Text / blocked text

There are two markup syntaxes for blocked text, using curly braces or using tics.

3.7.1. blocked text curly brace syntax

at the start of a line on its own use name of block type with an opening curly brace, follow with the content of the block, and close with a closing curly brace and the name of the block type, e.g.

```
code{
  this is a code block
}
code
```

3.7.2. blocked text tic syntax

start a line with three backtics, a space followed by the name of the name of block type, follow with the content of the block, and close with three back ticks on a line of their own, e.g.

```
```
3.7.3. Group

The “group” is different from the “block” mark in that “group” does not preserve whitespace, the “block” mark does. The text falling within the block is a single object.

**basic markup:**

```c
group{
    Your grouped text here
}
```

resulting group text output:

“Fury said to a mouse, That he met in the house, “Let us both go to law: I will prosecute YOU. -Come, I'll take no denial; We must have a trial: For really this morning I've nothing to do.” Said the mouse to the cur, "Such a trial, dear Sir, With no jury or judge, would be wasting our breath." "I'll be judge, I'll be jury," Said cunning old Fury: "I'll try the whole cause, and condemn you to death."

resulting group text output:

The Road Not Taken Related Poem Content Details BY ROBERT FROST Two roads diverged in a yellow wood, And sorry I could not travel both And be one traveler, long I stood And looked down one as far as I could To where it bent in the undergrowth; Then took the other, as just as fair, And having perhaps the better claim, Because it was grassy and wanted wear; Though as for that the passing there Had worn them really about the same, And both that morning equally lay In leaves no step had trodden black. Oh, I kept the first for another day! Yet knowing how way leads on to way, I doubted if I should ever come back. I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I I took the one less traveled by, And that has made all the difference.

3.7.4. Block

The “block” is different from the “group” mark in that the “block” mark (like the “poem” mark) preserves whitespace, the “group” mark does not. The text falling within the “block” is a single object, which is different from the “poem” mark where each identified verse is an object.

**basic markup:**

```c
block{
    Your block text here
}
```

8 endnote test 9 stress test
A block is treated as an object and given a single object number.

resulting block text output:

‘Fury said to a mouse, That he met in the house, "Let us both go to law: I will prosecute YOU. –Come, I'll take no denial; We must have a trial: For really this morning I've nothing to do."

Said the mouse to the cur, "Such a trial, dear Sir, With no jury or judge, would be wasting our breath."

"I'll be judge, I'll be jury,"

Said cunning old Fury: "I'll try the whole cause, and

\[^{10}\text{endnote test}\]
\[^{11}\text{stress test}\]
condemn you to death."

**curly brace delimiter, resulting block text output:**

The Road Not Taken Related Poem Content Details

BY ROBERT FROST

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I
I took the one less traveled by,
And that has made all the difference.

**3.7.5. Poem**

The “poem” mark like the “block” preserves whitespace. Text followed by two newlines are identified as verse and each verse is an object i.e. a poem may consist of multiple verse each of which is identified as an object, unlike a text “block” which is identified as a single object.

**basic markup:**

```plaintext
poem(
  Your poem here
)
```
Each verse in a poem is given an object number.

curly brace delimiter, resulting poem text output (broken into verse):

‘Fury said to a mouse, That he met in the house, "Let us both go to law: I will prosecute YOU. -Come, I'll take no denial; We must have a trial: For really this morning I've nothing to do."
Said the mouse to the cur, "Such a trial, dear Sir, With no jury or judge, would be wasting our breath."
"I'll be judge, I'll be jury,"
Said cunning old Fury: "I'll try the whole cause, and condemn you to death."

curly brace delimiter, resulting poem text output (broken into verse):
The Road Not Taken

by Robert Frost

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I
I took the one less traveled by,
And that has made all the difference.

tics delimiter, resulting group text output:

The Road Not Taken

by Robert Frost

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black.

12 published in 1916 as the first poem in the collection Mountain Interval.
13 published in 1916 as the first poem in the collection Mountain Interval.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I
I took the one less traveled by,
And that has made all the difference.

3.7.6. Code

“Code” blocks are a single text object, in which the original text is preserved.

Code tags code{ ... }code (used as with other group tags described above) are used to escape regular sisu markup, and have been used extensively within this document to provide examples of SiSU markup. You cannot however use code tags to escape code tags. They are however used in the same way as group or poem tags.

A code-block is treated as an object and given a single object number. [an option to number each line of code may be considered at some later time]

use of code tags instead of poem compared, resulting output:

```
"Fury said to a mouse, That he met in the house,
"Let us both go to law: I will prosecute YOU. --Come, I'll take no denial; We must have a trial: For really this morning I've nothing to do."
Said the mouse to the cur, "Such a trial, dear Sir, With no jury or judge, would be wasting our breath."
"I'll be judge, I'll be jury,"
```
Said cunning old Fury: "I'll try the whole cause, and condemn you to death."

From SiSU 2.7.7 on you can number codeblocks by placing a hash after the opening code tag code{#} as demonstrated here:

`Fury said to a mouse, That he met in the house, "Let us both go to law: I will prosecute YOU. --Come, I'll take no denial; We must have a trial: For really this morning I've nothing to do." Said the mouse to the cur, "Such a trial, dear Sir, With no jury or judge, would be wasting our breath." "I'll be judge, I'll be jury," Said cunning old Fury: "I'll try the whole cause, and condemn you to death."`
3.7.7. Tables

Tables may be prepared in two either of two forms

**markup example:**

```latex
\begin{table}[h]
\centering
\begin{tabular}{ccc}
\hline
This is a table & this would become column two of row one & column three of row one is here \\
And here begins another row & column two of row two & column three of row two, and so on \\
\hline
\end{tabular}
\end{table}
```

resulting output:

<table>
<thead>
<tr>
<th>This is a table</th>
<th>this would become column two of row one</th>
<th>column three of row one is here</th>
</tr>
</thead>
<tbody>
<tr>
<td>And here begins another row</td>
<td>column two of row two</td>
<td>column three of row two, and so on</td>
</tr>
</tbody>
</table>

**Same as a tic table**

```latex
\begin{table}[h]
\centering
\begin{tabular}{cccccc}
\hline
\hline
Contributors* | 10 | 472 | 2,188 | 9,653 | 25,011 | 48,721 \\
Active contributors** | 9 | 212 | 846 | 3,228 | 8,442 | 16,945 \\
Very active contributors*** | 0 | 31 | 190 | 692 | 1,639 | 3,016 \\
No. of English language articles | 25 | 16,000 | 101,000 | 190,000 | 320,000 | 630,000 \\
No. of articles, all languages | 25 | 19,000 | 138,000 | 490,000 | 862,000 | 1,500,000 \\
\hline
\end{tabular}
\end{table}
```

**Without instruction**

```latex
\begin{table}[h]
\centering
\begin{tabular}{cccccc}
\hline
\hline
Contributors* | 10 | 472 | 2,188 | 9,653 | 25,011 | 48,721 \\
Active contributors** | 9 | 212 | 846 | 3,228 | 8,442 | 16,945 \\
Very active contributors*** | 0 | 31 | 190 | 692 | 1,639 | 3,016 \\
No. of English language articles | 25 | 16,000 | 101,000 | 190,000 | 320,000 | 630,000 \\
No. of articles, all languages | 25 | 19,000 | 138,000 | 490,000 | 862,000 | 1,500,000 \\
\hline
\end{tabular}
\end{table}
```

**a second form may be easier to work with in cases where there is not much information in each column**

**markup example:**

```latex
\begin{table}[h]
\centering
\begin{tabular}{cccccc}
\hline
\hline
Contributors* | 10 | 472 | 2,188 | 9,653 | 25,011 | 48,721 \\
Active contributors** | 9 | 212 | 846 | 3,228 | 8,442 | 16,945 \\
Very active contributors*** | 0 | 31 | 190 | 692 | 1,639 | 3,016 \\
No. of English language articles | 25 | 16,000 | 101,000 | 190,000 | 320,000 | 630,000 \\
No. of articles, all languages | 25 | 19,000 | 138,000 | 490,000 | 862,000 | 1,500,000 \\
\hline
\end{tabular}
\end{table}
```

---

\footnote{\textbf{Table from the Wealth of Networks by Yochai Benkler}}

\footnote{\url{https://www.jus.uio.no/sisu/the_wealth_of_networks.yochai_benkler}}
resulting output:

Table 3.1: Contributors to Wikipedia, January 2001 - June 2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributors*</td>
<td>10</td>
<td>472</td>
<td>2,188</td>
<td>9,653</td>
<td>25,011</td>
<td>48,721</td>
</tr>
<tr>
<td>Active contributors**</td>
<td>9</td>
<td>212</td>
<td>846</td>
<td>3,228</td>
<td>8,442</td>
<td>16,945</td>
</tr>
<tr>
<td>Very active contributors***</td>
<td>0</td>
<td>31</td>
<td>190</td>
<td>692</td>
<td>1,639</td>
<td>3,016</td>
</tr>
<tr>
<td>No. of English language articles</td>
<td>25</td>
<td>16,000</td>
<td>101,000</td>
<td>190,000</td>
<td>320,000</td>
<td>630,000</td>
</tr>
<tr>
<td>No. of articles, all languages</td>
<td>25</td>
<td>19,000</td>
<td>138,000</td>
<td>490,000</td>
<td>862,000</td>
<td>1,600,000</td>
</tr>
</tbody>
</table>

* Contributed at least ten times; ** at least 5 times in last month; *** more than 100 times in last month.

3.8. Additional breaks - linebreaks within objects, column and page-breaks

3.8.1. line-breaks

To break a line within a “paragraph object”, two backslashes with a space before and a space or newline after them may be used.

The html break br enclosed in angle brackets (though undocumented) is available in versions prior to 3.0.13 and 2.9.7 (it remains available for the time being, but is depreciated).

To draw a dividing line dividing paragraphs, see the section on page breaks.

3.8.2. page breaks

Page breaks are only relevant and honored in some output formats. A page break or a new page may be inserted manually using the following markup on a line on its own:

page new == breaks the page, starts a new page.

page break -- breaks a column, starts a new column, if using columns, else breaks the page, starts a new page.

page break line across page -..- draws a dividing line, dividing paragraphs

page break:
3.9. Excluding Object Numbers

Object numbers can be switched off by adding a # to the end of a text object.

Sometimes it is wished to switch off object numbers for a larger group of text. In this case it is possible before the group, body of text to be without object numbers on a new line with nothing else on it to open the un-numbered object block with – # and to close the un-numbered block, and restart object numbering with on a similarly otherwise empty new-line with –+#

---#
un-numbered object block of text contained here
still un-numbered
--+#
object numbering returns here and for subsequent text objects
to switch of object numbering for a single objct, to the end of the object add ~# like so:~#

3.10. Bibliography / References

There are three ways to prepare a bibliography using sisu (which are mutually exclusive): (i) manually preparing and marking up as regular text in sisu a list of references, this is treated as a regular document segment (and placed before endnotes if any); (ii) preparing a bibliography, marking a heading level 1 !biblio (note the exclamation mark) and preparing a bibliography using various metadata tags including for author: title: year: a list of which is provided below, or; (iii) as an assistance in preparing a bibliography, marking a heading level 1 !biblio and tagging citations within footnotes for inclusion, identifying citations and having a parser attempt to extract them and build a bibliography of the citations provided.

For the heading/section sequence: endnotes, bibliography then book index to occur,
the name biblio or bibliography must be given to the bibliography section, like so:

1~!biblio

3.10.1. a markup tagged metadata bibliography section

Here instead of writing your full citations directly in footnotes, each time you have new material to cite, you add it to your bibliography section (if it has not been added yet) providing the information you need against an available list of tags (provided below).

The required tags are au: ti: and year: 15 an short quick example might be as follows:

1~!biblio

au: von Hippel, E.
ti: Perspective: User Toolkits for Innovation
lng: (language)
jo: Journal of Product Innovation Management
vo: 18
ed: (editor)
yr: 2001
note:
  sn: Hippel, /{User Toolkits}/ (2001)
id: vHippel_2001
% form:

au: Benkler, Yochai
 ti: The Wealth of Networks
 st: How Social Production Transforms Markets and Freedom
 lng: (language)
 pb: Harvard University Press
 edn: (edition)
 yr: 2006
 pl: U.S.
 url: https://cyber.law.harvard.edu/wealth_of_networks/Main_Page
 note:
  sn: Benkler, /{Wealth of Networks}/ (2006)
id: Benkler2006

au: Quixote, Don; Panza, Sancho
 ti: Taming Windmills, Keeping True
 jo: Imaginary Journal
 yr: 1605
 url: https://en.wikipedia.org/wiki/Don_Quixote
 note: made up to provide an example of author markup for an article with two authors
 sn: Quixote & Panza, /{Taming Windmills}/ (1605)
id: quixote1605

Note that the section name !biblio (or !bibliography) is required for the bibliography

15 for which you may alternatively use the full form author: title: and year:
to be treated specially as such, and placed after the auto-generated endnote section.

Using this method, work goes into preparing the bibliography, the tags author or editor, year and title are required and will be used to sort the bibliography that is placed under the Bibliography section.

The metadata tags may include shortname (sn:) and id, if provided, which are used for substitution within text. Every time the given id is found within the text it will be replaced by the given short title of the work (it is for this reason the short title has sisu markup to italicize the title), it should work with any page numbers to be added, the short title should be one that can easily be used to look up the full description in the bibliography.

The following footnote `~{ quixote1605 , pp 1000 - 1001 , also Benkler2006 p 1. }~`

would be presented as:


---

| au: author Surname, FirstNames (if multiple semi-colon separator) |
| ti: title (required) |
| st: subtitle |
| jo: journal |
| vo: volume |
| ed: editor (required if author not provided) |
| tr: translator |
| src: source (generic field where others are not appropriate) |
| in: in (like src) |
| pl: place/location (state, country) |
| pb: publisher |
| edn: edition |
| yr: year (yyyy or yyyy-mm or yyyy-mm-dd) (required) |
| pg: pages |
| url: https://url |
| note: note |
| id: create_short_identifier e.g. authorSurnameYear |
| sn: short name e.g. Author, /{ short title }/, Year |

3.10.2. Tagging citations for inclusion in the Bibliography

Here whenever you make a citation that you wish be included in the bibliography, you tag the citation as such using special delimiters (which are subsequently removed from the final text produced by sisu)

\[Quixote and Panza, Taming Windmills (1605), pp 1000 - 1001 also, Benkler, Wealth of Networks (2006), p 1\]
Here you would write something like the following, either in regular text or a footnote

See : Quixote, Don; Panza, Sancho /{Taming Windmills, Keeping True}/ (1605) :

SiSU will parse for a number of patterns within the delimiters to try make out the authors, title, date etc. and from that create a Bibliography. This is more limited than the previously described method of preparing a tagged bibliography, and using an id within text to identify the work, which also lends itself to greater consistency.

### 3.11. Glossary

Using the section name \#glossary results in the Glossary being treated specially as such, and placed after the auto-generated endnote section (before the bibliography/list of references if there is one).

The Glossary is ordinary text marked up in a manner deemed suitable for that purpose. e.g. with the term in bold, possibly with a hanging indent.

\~!glossary

_0_1 *(GPL)* An abbreviation that stands for "General Purpose License." ... 
_0_1 [provide your list of terms and definitions]

In the given example the first line is not indented subsequent lines are by one level, and the term to be defined is in bold text.

### 3.12. Book index

To make an index append to paragraph the book index term relates to it, using an equal sign and curly braces.

Currently two levels are provided, a main term and if needed a sub-term. Sub-terms are separated from the main term by a colon.

Paragraph containing main term and sub-term.

=(Main term:sub-term)

The index syntax starts on a new line, but there should not be an empty line between paragraph and index markup.

The structure of the resulting index would be:

Main term, 1
sub-term, 1
Several terms may relate to a paragraph, they are separated by a semicolon. If the term refers to more than one paragraph, indicate the number of paragraphs.

Paragraph containing main term, second term and sub-term.
\{(first term; second term: sub-term)\}

The structure of the resulting index would be:

- First term, 1,
- Second term, 1,
- sub-term, 1

If multiple sub-terms appear under one paragraph, they are separated under the main term heading from each other by a pipe symbol.

Paragraph containing main term, second term and sub-term.
\{(Main term: sub-term+2|second sub-term; Another term\)

A paragraph that continues discussion of the first sub-term

The plus one in the example provided indicates the first sub-term spans one additional paragraph. The logical structure of the resulting index would be:

Main term, 1,
- sub-term, 1-3,
- second sub-term, 1,
- Another term, 1
4. Composite documents markup

It is possible to build a document by creating a master document that requires other documents. The documents required may be complete documents that could be generated independently, or they could be markup snippets, prepared so as to be easily available to be placed within another text. If the calling document is a master document (built from other documents), it should be named with the suffix `.ssm` Within this document you would provide information on the other documents that should be included within the text. These may be other documents that would be processed in a regular way, or markup bits prepared only for inclusion within a master document `.sst` regular markup file, or `.ssi` (insert/information) A secondary file of the composite document is built prior to processing with the same prefix and the suffix `.sst`

basic markup for importing a document into a master document

```
<< filename1.sst
<< filename2.ssi
```

The form described above should be relied on. Within the Vim editor it results in the text thus linked becoming hyperlinked to the document it is calling in which is convenient for editing.
5. Substitutions

markup example:

```markdown
The current Debian is `${debian_stable}` the next debian will be `${debian_testing}`

Configure substitution in `_sisu/sisu_document_make`

@make:
  :substitute: `${debian_stable}`/,'*(Wheezy)+'`${debian_testing}`/,'*(Jessie)+'
```

resulting output:

The current Debian is `${debian_stable}` the next debian will be `${debian_testing}`
Another test `${sisudoc}` ok?
Configure substitution in `_sisu/sisu_document_make`
6. Footnote, endnote stress test

Globalisation is to be observed as a trend intrinsic to the world economy. Rudimentary economics explains this runaway process, as being driven by competition within the business community to achieve efficient production, and to reach and extend available markets. Technological advancement particularly in transport and communications has historically played a fundamental role in the furtherance of international commerce, with the Net, technology’s latest spatio-temporally transforming offering, linchpin of the “new-economy”, extending exponentially the global reach of the business community. The Net covers much of the essence of international commerce providing an instantaneous, low cost, convergent, global and borderless: information centre, marketplace and channel for communications, payments and the delivery of services and intellectual property. The sale of goods, however, involves the separate element of their physical delivery. The Net has raised a plethora of questions and has frequently offered solutions. The increased transparency of borders arising from the Net’s ubiquitous nature results in an increased demand for the transparency of operation. As economic activities become increasingly global, to reduce transaction costs, there is a strong incentive for the “law” that provides for them, to do so in a similar dimension. The appeal of transnational legal solutions lies in the potential reduction in complexity, more widely dispersed expertise, and resulting increased transaction efficiency. The Net reflexively offers possibilities for the development of transnational legal solutions, having in a similar vein transformed the possibilities for the promulgation of texts, the sharing of ideas and collaborative ventures. There are however, likely to be tensions within the legal community protecting entrenched practices against that which is new, (both in law and technology) and the business community’s goal to reduce transaction costs. This here is a test and repeat does this work?

Within commercial law an analysis of law and economics may assist in developing a better understanding of the relationship between commercial law and the commercial sector it serves. “...[T]he importance of the interrelations between law and economics can be seen in the twin facts that legal change is often a function of economic ideas and conditions, which necessitate and/or generate demands for legal

---

17 As Maria Cattaui Livanos suggests in The global economy - an opportunity to be seized in Business World the Electronic magazine of the International Chamber of Commerce (Paris, July 1997) at "https://www.iccwbo.org/html/globalec.htm". "Globalization is unstoppable. Even though it may be only in its early stages, it is already intrinsic to the world economy. We have to live with it, recognize its advantages and learn to manage it. That imperative applies to governments, who would be unwise to attempt to stem the tide for reasons of political expediency. It also goes for companies of all sizes, who must now compete on global markets and learn to adjust their strategies accordingly, seizing the opportunities that globalization offers.”

18 To remain successful, being in competition, the business community is compelled to take advantage of the opportunities provided by globalisation.

19 Realists would contend that law is contextual and best understood by exploring the interrelationships between law and the other social sciences, such as sociology, psychology, political science, and economics.
change, and that economic change is often governed by legal change." In doing so, however, it is important to be aware that there are several competing schools of law and economics, with different perspectives, levels of abstraction, and analytical consequences of and for the world that they model. This sentence trails test endnote. $$
$$

Difference? for a good introduction see Nicholas Mercuro and Steven G. Medema, *Economics and the Law: from Posner to Post-Modernism* (Princeton, 1997). These include: Chicago law and economics (New law and economics); New Haven School of law and economics; Public Choice Theory; Institutional law and economics; Neo-institutional law and economics; Critical Legal Studies. puzzle away
relatives? see ancestors and descendants
document ...

ancestors heading levels above the current heading level which it logically falls
under and to which it belongs (headings preceding current level under which it
occurs)
descendants decendant headings are sub-headings beneath the current heading
level, heading levels below the current heading level which are derived from it and
belong to it (sub-headings contained beneath current level); decendant objects are
the range of objects contained by a heading (ocn ranges for each heading in
document body)

(documents) sections a document can be divided into 3 parts: front; body and; back.
Front matter includes the table of contents (which is generated from headings) and
any parts of the document that are presented before the document body (this might
include a copyright notice for example). The document body, the substantive part of
the document, all its substantive objects, including: headings, paragraphs, tables,
verse etc. This is followed by optional backmatter: endnotes, generated from inline
markup; glossary, from section using a subset of regular markup, with an indication
that section is to be treated as glossary. Note two things glossary might do that it
does not, there is: no automatic (sorting) alphabetisation of listing; no creation of
term anchor tags (perhaps it should); bibliography, created from a specially marked
up section, with indication that section is to be treated as bibliography; bookindex
generated from dedicated markup appended to objects providing index terms and the
relevant range; blurb made up of ordinary markup, with indication that section is to
be treated as blurb

segment, segmented text certain forms of output are conveniently segmented,
e.g. epub and segmented html. The document is broken into chunks indicated by
markup level 1 heading (numeric level 4 headings) as the significant level at which
the document should be segmented, and including all decendant objects of that level.
For a longer text/book this will usually the chapter level. (this is significant in e.g. for
epub and segmented html, which are broken by segment, usually chosen to be
chapter)

scroll the document as a “scroll”, e.g. as a single text file, or continuous html
document

object a unit of text. Objects include: headings; paragraphs; code blocks; grouped
text; verse of poems; tables. Each substantive object is given an object number, that
should make it citable.

ocn (object citation number / citation number) numbers assigned sequentially
to each substantive object of a document. An ocn has the characteristic of remaining
identical across output formats. Translations should be prepared so number remains
identical across objects in different languages

unnumbered paragraph (place marker at end of paragraph)

unnumbered paragraph, delete when not required (place marker at end of paragraph)
[used in dummy headings, eg. sometimes used for segmented html, e.g. to mark a prologue that is not otherwise identified as such as belonging to its own segment, segment will be created as such an placed in toc, but will not be found in scroll versions of the document]

citation number (see ocn / object citation number)

**heading auto-numbering** set in header, switched off in markup level 1 with an appended minus 1 - or 1 given _segname_

document abstraction (**== internal representation**) intermediate step, preprocessing of document, into abstraction / representation that is used by all downstream processing, i.e. for all output formats. This allows normalisation, reducing alternative markup options to common representations, e.g. code blocks (open and close), tables, ways of instructing that text be bold, shortcut way of providing and endnote reference to a link

(document) internal representation (**== document abstraction**) see document abstraction

node representation

**attribute (object attributes)** when the document is abstracted attributes associated with an object, for example for a: paragraph, indent (hang ... check & add), bulleted, for a: code block, the language syntax, whether the block is numbered

**inline markup** when the document is abstracted, markup that remains embedded in the text, such as its font face (bold, italic, emphasis, underscore, strike, superscript, subscript), links, endnotes

sequential all objects backkeeping number?
7. Sample Commands

7.1. general

`sdp/bin/sdp-ldc -v -epub -html -sqlite-update -output-dir=tmp/program-output data/sisupod/sisu-manual`

time (`sdp/bin/sdp-ldc -v -epub -html -sqlite-update -output-dir=tmp/program-output data/sisupod/*`)

7.2. source & sisupod

`sdp/bin/sdp-ldc -v -source -sisupod -output-dir=tmp/program-output data/sisudir/media/text/sisu-manual.sst`

`sdp/bin/sdp-ldc -v -source -sisupod -output-dir=tmp/program-output data/sisupod/sisu-manual`

`sdp/bin/sdp-ldc -v -source -sisupod -output-dir=tmp/program-output data/sisupod/*`

7.3. sqlite

`sdp/bin/sdp-ldc -v -sqlite-db-drop -output-dir=tmp/program-output data/sisupod/*`

`sdp/bin/sdp-ldc -v -sqlite-db-create -output-dir=tmp/program-output data/sisupod/*`

`sdp/bin/sdp-ldc -v -sqlite-db-recreate -output-dir=tmp/program-output data/sisupod/*`

`sdp/bin/sdp-ldc -v -sqlite-db-recreate -sqlite-insert -output-dir=tmp/program-output data/sisupod/*`

`sdp/bin/sdp-ldc -v -sqlite-db-recreate -sqlite-update -output-dir=tmp/program-output data/sisupod/sisu-manual`

`sdp/bin/sdp-dmd -v -epub -html -output-dir=tmp/program-output data/sisudir/media/text/sisu_markup.sst`

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sisu

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SiSU was started in 1997, open-sourced in 2005.