

# SiSU - SiSU information Structuring Universe

Manual [0.58]

Ralph Amissah

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# SiSU - SiSU INFORMATION STRUCTURING UNIVERSE - MANUAL [0.58], RALPH AMISSAH

## WHAT IS SiSU?

### 1. Introduction - What is SiSU?

**SiSU** is a system for document markup, publishing (in multiple open standard formats) and search

**SiSU**<sup>1</sup> is a<sup>2</sup> framework for document structuring, publishing and search, comprising of (a) a lightweight document structure and presentation markup syntax and (b) an accompanying engine for generating standard document format outputs from documents prepared in sisu markup syntax, which is able to produce multiple standard outputs that (can) share a common numbering system for the citation of text within a document.

**SiSU** is developed under an open source, software libre license (GPL3). It has been developed in the context of coping with large document sets with evolving markup related technologies, for which you want multiple output formats, a common mechanism for cross-output-format citation, and search.

**SiSU** both defines a markup syntax and provides an engine that produces open standards format outputs from documents prepared with **SiSU** markup. From a single lightly prepared document sisu custom builds several standard output formats which share a common (text object) numbering system for citation of content within a document (that also has implications for search). The sisu engine works with an abstraction of the document's structure and content from which it is possible to generate different forms of representation of the document. Significantly **SiSU** markup is more sparse than html and outputs which include html, LaTeX, landscape and portrait pdfs, Open Document Format (ODF), all of which can be added to and updated. **SiSU** is also able to populate SQL type databases at an object level, which means that searches can be made with that degree of granularity. Results of objects (primarily paragraphs and

<sup>1</sup> “**SiSU** information Structuring Universe” or “Structured information, Serialized Units”. also chosen for the meaning of the Finnish term “sisu”.

<sup>2</sup> Unix command line oriented

headings) can be viewed directly in the database, or just the object numbers shown - your search criteria is met in these documents and at these locations within each document.

Source document preparation and output generation is a two step process: (i) document source is prepared, that is, marked up in sisu markup syntax and (ii) the desired output subsequently generated by running the sisu engine against document source. Output representations if updated (in the sisu engine) can be generated by re-running the engine against the prepared source. Using **SiSU** markup applied to a document, **SiSU** custom builds various standard open output formats including plain text, HTML, XHTML, XML, OpenDocument, LaTeX or PDF files, and populate an SQL database with objects<sup>3</sup> (equating generally to paragraph-sized chunks) so searches may be performed and matches returned with that degree of granularity ( e.g. your search criteria is met by these documents and at these locations within each document). Document output formats share a common object numbering system for locating content. This is particularly suitable for “published” works (finalized texts as opposed to works that are frequently changed or updated) for which it provides a fixed means of reference of content.

In preparing a **SiSU** document you optionally provide semantic information related to the document in a document header, and in marking up the substantive text provide information on the structure of the document, primarily indicating heading levels and footnotes. You also provide information on basic text attributes where used. The rest is automatic, sisu from this information custom builds<sup>4</sup> the different forms of output requested.

**SiSU** works with an abstraction of the document based on its structure

<sup>3</sup> objects include: headings, paragraphs, verse, tables, images, but not footnotes/endnotes which are numbered separately and tied to the object from which they are referenced.

<sup>4</sup> i.e. the html, pdf, odf outputs are each built individually and optimised for that form of presentation, rather than for example the html being a saved version of the odf, or the pdf being a saved version of the html.

which is comprised of its frame<sup>5</sup> and the objects<sup>6</sup> it contains, which enables **SiSU** to represent the document in many different ways, and to take advantage of the strengths of different ways of presenting documents. The objects are numbered, and these numbers can be used to provide a common base for citing material within a document across the different output format types. This is significant as page numbers are not suited to the digital age, in web publishing, changing a browser’s default font or using a different browser means that text appears on different pages; and in publishing in different formats, html, landscape and portrait pdf etc. again page numbers are of no use to cite text in a manner that is relevant against the different output types. Dealing with documents at an object level together with object numbering also has implications for search.

One of the challenges of maintaining documents is to keep them in a format that would allow users to use them without depending on a proprietary software popular at the time. Consider the ease of dealing with legacy proprietary formats today and what guarantee you have that old proprietary formats will remain (or can be read without proprietary software/equipment) in 15 years time, or the way the way in which html has evolved over its relatively short span of existence. **SiSU** provides the flexibility of outputting documents in multiple non-proprietary open formats including html, pdf<sup>7</sup> and the ISO standard ODF.<sup>8</sup> Whilst **SiSU** relies on software, the markup is uncomplicated and minimalistic which guarantees that future engines can be written to run against it. It is also easily converted to other formats, which means documents prepared in **SiSU** can be migrated to other document formats. Further security is provided by the fact that the software itself, **SiSU** is available under GPL3 a licence that guarantees that the source code will always be open, and free as in libre which means that that code base can be used updated and further

<sup>5</sup> the different heading levels

<sup>6</sup> units of text, primarily paragraphs and headings, also any tables, poems, code-blocks

<sup>7</sup> Specification submitted by Adobe to ISO to become a full open ISO specification  
<<http://www.linux-watch.com/news/NS7542722606.html>>

<sup>8</sup> ISO/IEC 26300:2006

developed as required under the terms of its license. Another challenge is to keep up with a moving target. **SiSU** permits new forms of output to be added as they become important, (Open Document Format text was added in 2006), and existing output to be updated (html has evolved and the related module has been updated repeatedly over the years, presumably when the World Wide Web Consortium (w3c) finalises html 5 which is currently under development, the html module will again be updated allowing all existing documents to be regenerated as html 5).

The document formats are written to the file-system and available for indexing by independent indexing tools, whether off the web like Google and Yahoo or on the site like Lucene and Hyperestraier.

**SiSU** also provides other features such as concordance files and document content certificates, and the working against an abstraction of document structure has further possibilities for the research and development of other document representations, the availability of objects is useful for example for topic maps and the commercial law thesaurus by Vikki Rogers and Al Krtizer, together with the flexibility of **SiSU** offers great possibilities.

**SiSU** is primarily for published works, which can take advantage of the citation system to reliably reference its documents. **SiSU** works well in a complementary manner with such collaborative technologies as Wikis, which can take advantage of and be used to discuss the substance of content prepared in **SiSU**.

[<http://www.jus.uio.no/sisu>](http://www.jus.uio.no/sisu)

## 2. How does sisu work?

**SiSU** markup is fairly minimalistic, it consists of: a (largely optional) document header, made up of information about the document (such as when it was published, who authored it, and granting what rights) and any processing instructions; and markup within the substantive text of the document, which is related to document structure and typeface. **SiSU** must be able to discern the structure of a document, (text headings and their levels in relation to each other), either from information provided in the document header or from markup within the text (or from a combination of both). Processing is done against an abstraction of the document comprising of information on the document's structure and its objects,[2] which the program serializes (providing the object numbers) and which are assigned hash sum values based on their content. This abstraction of information about document structure, objects, (and hash sums), provides considerable flexibility in representing documents different ways and for different purposes (e.g. search, document layout, publishing, content certification, concordance etc.), and makes it possible to take advantage of some of the strengths of established ways of representing documents, (or indeed to create new ones).



### 3. Summary of features

• sparse/minimal markup (clean utf-8 source texts). Documents are prepared in a single UTF-8 file using a minimalistic mnemonic syntax. Typical literature, documents like “War and Peace” require almost no markup, and most of the headers are optional.

• markup is easily readable/parsable by the human eye, (basic markup is simpler and more sparse than the most basic HTML), [this may also be converted to XML representations of the same input/source document].

• markup defines document structure (this may be done once in a header pattern-match description, or for heading levels individually); basic text attributes (bold, italics, underscore, strike-through etc.) as required; and semantic information related to the document (header information, extended beyond the Dublin core and easily further extended as required); the headers may also contain processing instructions. **SiSU** markup is primarily an abstraction of document structure and document metadata to permit taking advantage of the basic strengths of existing alternative practical standard ways of representing documents [be that browser viewing, paper publication, sql search etc.] (html, xml, odf, latex, pdf, sql)

• for output produces reasonably elegant output of established industry and institutionally accepted open standard formats.[3] takes advantage of the different strengths of various standard formats for representing documents, amongst the output formats currently supported are:

- html - both as a single scrollable text and a segmented document
- xhtml
- XML - both in sax and dom style xml structures for further development as required
- ODF - open document format, the iso standard for document storage

- LaTeX - used to generate pdf
- pdf (via LaTeX)
- sql - population of an sql database, (at the same object level that is used to cite text within a document)

Also produces: concordance files; document content certificates (md5 or sha256 digests of headings, paragraphs, images etc.) and html manifests (and sitemaps of content). (b) takes advantage of the strengths implicit in these very different output types, (e.g. PDFs produced using typesetting of LaTeX, databases populated with documents at an individual object/paragraph level, making possible granular search (and related possibilities))

• ensuring content can be cited in a meaningful way regardless of selected output format. Online publishing (and publishing in multiple document formats) lacks a useful way of citing text internally within documents (important to academics generally and to lawyers) as page numbers are meaningless across browsers and formats. sisu seeks to provide a common way of pinpoint the text within a document, (which can be utilized for citation and by search engines). The outputs share a common numbering system that is meaningful (to man and machine) across all digital outputs whether paper, screen, or database oriented, (pdf, HTML, xml, sqlite, postgresql), this numbering system can be used to reference content.

• Granular search within documents. SQL databases are populated at an object level (roughly headings, paragraphs, verse, tables) and become searchable with that degree of granularity, the output information provides the object/paragraph numbers which are relevant across all generated outputs; it is also possible to look at just the matching paragraphs of the documents in the database; [output indexing also work well with search indexing tools like hyperestraier].

• long term maintainability of document collections in a world of changing formats, having a very sparsely marked-up source document base.

there is a considerable degree of future-proofing, output representations are “upgradeable”, and new document formats may be added. e.g. addition of odf (open document text) module in 2006 and in future html5 output sometime in future, without modification of existing prepared texts

- SQL search aside, documents are generated as required and static once generated.

- documents produced are static files, and may be batch processed, this needs to be done only once but may be repeated for various reasons as desired (updated content, addition of new output formats, updated technology document presentations/representations)

- document source (plaintext utf-8) if shared on the net may be used as input and processed locally to produce the different document outputs

- document source may be bundled together (automatically) with associated documents (multiple language versions or master document with inclusions) and images and sent as a zip file called a sisupod, if shared on the net these too may be processed locally to produce the desired document outputs

- generated document outputs may automatically be posted to remote sites.

- for basic document generation, the only software dependency is **Ruby**, and a few standard Unix tools (this covers plaintext, HTML, XML, ODF, LaTeX). To use a database you of course need that, and to convert the LaTeX generated to pdf, a latex processor like tetex or texlive.

- as a developers tool it is flexible and extensible

Syntax highlighting for **SiSU** markup is available for a number of text editors.

**SiSU** is less about document layout than about finding a way with lit-

tle markup to be able to construct an abstract representation of a document that makes it possible to produce multiple representations of it which may be rather different from each other and used for different purposes, whether layout and publishing, or search of content

i.e. to be able to take advantage from this minimal preparation starting point of some of the strengths of rather different established ways of representing documents for different purposes, whether for search (relational database, or indexed flat files generated for that purpose whether of complete documents, or say of files made up of objects), online viewing (e.g. html, xml, pdf), or paper publication (e.g. pdf)...

the solution arrived at is by extracting structural information about the document (about headings within the document) and by tracking objects (which are serialized and also given hash values) in the manner described. It makes possible representations that are quite different from those offered at present. For example objects could be saved individually and identified by their hashes, with an index of how the objects relate to each other to form a document.

## 4. Help

### 4.1 SiSU Manual

The most up to date information on sisu should be contained in the `sisu_manual`, available at:

`<http://www.jus.uio.no/sisu/sisu\_manual/>`

and (from **SiSU** 0.59 onwards) installed locally at:

`/usr/share/doc/sisu/sisu_manual/`

or equivalent directory

Within the **SiSU** tarball at:

`./data/doc/sisu/sisu_manual/`

### 4.2 SiSU man pages

If **SiSU** is installed on your system usual man commands should be available, try:

`man sisu`

`man sisu_markup`

`man sisu_commands`

Most **SiSU** man pages are generated directly from sisu documents that are used to prepare the sisu manual, the sources files for which are located within the **SiSU** tarball at:

`./data/doc/sisu/sisu_manual/`

Once installed, directory equivalent to:

`/usr/share/doc/sisu/sisu_manual/`

Available man pages are converted back to html using `man2html`:

`/usr/share/doc/sisu/html/`

`./data/doc/sisu/html/`

The **SiSU** man pages can be viewed online at:<sup>9</sup>

An online version of the sisu man page is available here:

- [various sisu man pages](#)<sup>10</sup>

- [sisu.1](#)<sup>11</sup>

- [sisu.8](#)<sup>12</sup>

- [sisu\\_examples.1](#)<sup>13</sup>

- [sisu\\_webrick.1](#)<sup>14</sup>

### 4.3 SiSU built-in interactive help

This is particularly useful when current installation information is obtained as the interactive help is able to provide information on your sisu configuration and setup.

`sisu --help`

`sisu --help [subject]`

<sup>9</sup> generated from source using `rman`

`<http://polyglotman.sourceforge.net/rman.html>`

With regard to **SiSU** man pages the formatting generated for markup syntax is not quite right, for that you might prefer the links under:

`<http://www.jus.uio.no/sample>`

<sup>10</sup> `<http://www.jus.uio.no/sisu/man/>`

<sup>11</sup> `<http://www.jus.uio.no/sisu/man/sisu.1.html>`

<sup>12</sup> `<http://www.jus.uio.no/sisu/man/sisu.8.html>`

<sup>13</sup> `<http://www.jus.uio.no/sisu/man/sisu\_examples.1.html>`

<sup>14</sup> `<http://www.jus.uio.no/sisu/man/sisu\_webrick.1.html>`

sisu -help env [for feedback on the way your system is setup  
with regard to sisu]

sisu -V [same as above command]

sisu -help commands

sisu -help markup

Apart from real-time information on your current configuration the **SiSU** manual and man pages are likely to contain more up-to-date information than the sisu interactive help (for example on commands and markup).

NOTE: Running the command sisu (alone without any flags, filenames or wildcards) brings up the interactive help, as does any sisu command that is not recognised. Enter to escape.

## 5. Commands Summary

### 5.1 Synopsis

**SiSU** - Structured information, Serialized Units - a document publishing system

sisu [ -abcDdFHhIiMmNnopqRrSsTtUuVvwXxYyZz0-9 ] [ filename/  
wildcard ]

sisu [ -Ddcv ] [ instruction ]

sisu [ -CcFLSVvW ]

Note: commands should be issued from within the directory that contains the marked up files, cd to markup directory.

### 5.2 Description

**SiSU** **SiSU** is a document publishing system, that from a simple single marked-up document, produces multiple of output formats including: plaintext, html, LaTeX, pdf, xhtml, XML, info, and SQL (PostgreSQL and SQLite), which share numbered text objects (“object citation numbering”) and the same document structure information. For more see:

<<http://www.jus.uio.no/sisu>>

### 5.3 Document Processing Command Flags

**-a [filename/wildcard]**

produces plaintext with Unix linefeeds and without markup, (object numbers are omitted), has footnotes at end of each paragraph that contains them [ -A for equivalent dos (linefeed) output file] [see -e for endnotes]. (Options include: -endnotes for endnotes -footnotes for footnotes at the

## 4.4 Help Sources

For lists of alternative help sources, see:

### man page

man sisu\_help\_sources

### man2html

/usr/share/doc/sisu/sisu\_manual/sisu\_help\_sources/index.html

### sisu generated html

/usr/share/doc/sisu/html/sisu\_help\_sources/index.html

<[http://sisudoc.org/sisu\\_manual/sisu\\_help\\_sources/index.html](http://sisudoc.org/sisu_manual/sisu_help_sources/index.html)>

<[http://www.jus.uio.no/sisu/sisu\\_manual/sisu\\_help\\_sources/index.html](http://www.jus.uio.no/sisu/sisu_manual/sisu_help_sources/index.html)>

end of each paragraph –unix for unix linefeed (default) –msdos for msdos linefeed)

#### 104 **-b [filename/wildcard]**

produces xhtml/XML output for browser viewing (sax parsing).

#### 105 **-C [–init-site]**

configure/initialise shared output directory files initialize shared output directory (config files such as css and dtd files are not updated if they already exist unless modifier is used). -C –init-site configure/initialise site more extensive than -C on its own, shared output directory files/force update, existing shared output config files such as css and dtd files are updated if this modifier is used.

#### 106 **-CC**

configure/initialise shared output directory files initialize shared output directory (config files such as css and dtd files are not updated if they already exist unless modifier is used). The equivalent of: -C –init-site configure/initialise site, more extensive than -C on its own, shared output directory files/force update, existing shared output config files such as css and dtd files are updated if -CC is used.

#### 107 **-c [filename/wildcard]**

screen toggle ansi screen colour on or off depending on default set (unless -c flag is used: if sisurc colour default is set to ‘true’, output to screen will be with colour, if sisurc colour default is set to ‘false’ or is undefined screen output will be without colour).

#### 108 **-D [instruction] [filename]**

database postgresql ( –pgsql may be used instead) possible instructions, include: –createdb; –create; –dropall; –import [filename]; –update [filename]; –remove [filename]; see database section below.

#### 109 **-d [–db-[database type (sqlite|pg)]] [–[instruction] [filename]**

database type default set to sqlite, (for which –sqlite may be used instead) or to specify another database –db-[pgsql, sqlite] (however see -

D) possible instructions include: –createdb; –create; –dropall; –import [filename]; –update [filename]; –remove [filename]; see database section below.

#### **-F [–webserv=webrick]**

generate examples of (naive) cgi search form for sqlite and pgsql depends on your already having used sisu to populate an sqlite and/or pgsql database, (the sqlite version scans the output directories for existing sisu\_sqlite databases, so it is first necessary to create them, before generating the search form) see -d -D and the database section below. If the optional parameter –webserv=webrick is passed, the cgi examples created will be set up to use the default port set for use by the webrick server, (otherwise the port is left blank and the system setting used, usually 80). The samples are dumped in the present work directory which must be writable, (with screen instructions given that they be copied to the cgi-bin directory). -Fv (in addition to the above) provides some information on setting up hyperestraier for sisu

#### **-H [filename/wildcard]**

produces html without link suffixes (.html .pdf etc.) (“Hide”). Requires an appropriately configured web server. [behaviour switched after 0.35 see -h].

#### **-h [filename/wildcard]**

produces html (with hardlinks i.e. with name suffixes in links/local urls). html, with internal document links that include the document suffix, i.e. whether it is .html or .pdf (required for browsing directly off a file system, and works with most web servers). [behaviour switched after 0.35 see -H].

#### **-I [filename/wildcard]**

produces texinfo and info file, (view with pinfo).

#### **-L**

prints license information.

**-M [filename/wildcard/url]**

maintenance mode files created for processing preserved and their locations indicated. (also see -V)

**-m [filename/wildcard/url]**

assumed for most other flags, creates new meta-markup file, (the meta-verse ) that is used in all subsequent processing of other output. This step is assumed for most processing flags. To skip it see -n

**-N [filename/wildcard/url]**

document digest or document content certificate ( DCC ) as md5 digest tree of the document: the digest for the document, and digests for each object contained within the document (together with information on software versions that produced it) (digest.txt). -NV for verbose digest output to screen.

**-n [filename/wildcard/url]**

skip meta-markup (building of “metaverse”), this skips the equivalent of -m which is otherwise assumed by most processing flags.

**-o [filename/wildcard/url]**

output basic document in opendocument file format (opendocument.odt).

**-p [filename/wildcard]**

produces LaTeX pdf (portrait.pdf and landscape.pdf). Default paper size is set in config file, or document header, or provided with additional command line parameter, e.g. -papersize-a4 preset sizes include: ‘A4’, U.S. ‘letter’ and ‘legal’ and book sizes ‘A5’ and ‘B5’ (system defaults to A4).

**-q [filename/wildcard]**

quiet less output to screen.

**-R [filename/wildcard]**

copies sisu output files to remote host using rsync. This requires that

sisurc.yml has been provided with information on hostname and username, and that you have your “keys” and ssh agent in place. Note the behavior of rsync different if -R is used with other flags from if used alone. Alone the rsync -delete parameter is sent, useful for cleaning the remote directory (when -R is used together with other flags, it is not). Also see -r

**-r [filename/wildcard]**

copies sisu output files to remote host using scp. This requires that sisurc.yml has been provided with information on hostname and username, and that you have your “keys” and ssh agent in place. Also see -R

**-S**

produces a sisupod a zipped sisu directory of markup files including sisu markup source files and the directories local configuration file, images and skins. Note: this only includes the configuration files or skins contained in ./sisu not those in ~/sisu -S [filename/wildcard] option. Note: (this option is tested only with zsh).

**-S [filename/wildcard]**

produces a zipped file of the prepared document specified along with associated images, by default named sisupod.zip they may alternatively be named with the filename extension .ssp This provides a quick way of gathering the relevant parts of a sisu document which can then for example be emailed. A sisupod includes sisu markup source file, (along with associated documents if a master file, or available in multilingual versions), together with related images and skin. **SiSU** commands can be run directly against a sisupod contained in a local directory, or provided as a url on a remote site. As there is a security issue with skins provided by other users, they are not applied unless the flag -trust or -trusted is added to the command instruction, it is recommended that file that are not your own are treated as untrusted. The directory structure of the unzipped file is understood by sisu, and sisu commands can be run within it. Note: if



you wish to send multiple files, it quickly becomes more space efficient to zip the sisu markup directory, rather than the individual files for sending). See the -S option without [filename/wildcard].

#### 126 **-s [filename/wildcard]**

copies sisu markup file to output directory.

#### 127 **-t [filename/wildcard (\*.termsheet.rb)]**

standard form document builder, preprocessing feature

#### 128 **-U [filename/wildcard]**

prints url output list/map for the available processing flags options and resulting files that could be requested, (can be used to get a list of processing options in relation to a file, together with information on the output that would be produced), -u provides url output mapping for those flags requested for processing. The default assumes sisu\_webrick is running and provides webrick url mappings where appropriate, but these can be switched to file system paths in sisurc.yml

#### 129 **-u [filename/wildcard]**

provides url mapping of output files for the flags requested for processing, also see -U

#### 130 **-V**

on its own, provides SiSU version and environment information (sisu --help env)

#### 131 **-V [filename/wildcard]**

even more verbose than the -v flag. (also see -M)

#### 132 **-v**

on its own, provides SiSU version information

#### 133 **-v [filename/wildcard]**

provides verbose output of what is being built, where it is being built (and error messages if any), as with -u flag provides a url mapping of files created for each of the processing flag requests. See also -V

#### **-W**

134 starts ruby's webrick webserver points at sisu output directories, the default port is set to 8081 and can be changed in the resource configuration files. [tip: the webrick server requires link suffixes, so html output should be created using the -h option rather than -H; also, note -F webrick ].

#### **-w [filename/wildcard]**

135 produces concordance (wordmap) a rudimentary index of all the words in a document. (Concordance files are not generated for documents of over 260,000 words unless this limit is increased in the file sisurc.yml)

#### **-X [filename/wildcard]**

136 produces XML output with deep document structure, in the nature of dom.

#### **-x [filename/wildcard]**

137 produces XML output shallow structure (sax parsing).

#### **-Y [filename/wildcard]**

138 produces a short sitemap entry for the document, based on html output and the sisu\_manifest. --sitemaps generates/updates the sitemap index of existing sitemaps. (Experimental, [g,y,m announcement this week])

#### **-y [filename/wildcard]**

139 produces an html summary of output generated (hyperlinked to content) and document specific metadata (sisu\_manifest.html). This step is assumed for most processing flags.

#### **-Z [filename/wildcard]**

140 Zap, if used with other processing flags deletes output files of the type about to be processed, prior to processing. If -Z is used as the lone processing related flag (or in conjunction with a combination of -[mMvVq]), will remove the related document output directory.

#### **-z [filename/wildcard]**

141 produces php (zend) [this feature is disabled for the time being]

## 6. command line modifiers

### **–no-ocn**

with -h -H or -p

switches off object citation numbering. Produce output without identifying numbers in margins of html or LaTeX/pdf output.

### **–no-annotate**

strips output text of editor endnotes<sup>\*1</sup> denoted by asterisk or dagger/plus sign

### **–no-asterisk**

strips output text of editor endnotes<sup>\*2</sup> denoted by asterisk sign

### **–no-dagger**

strips output text of editor endnotes<sup>+1</sup> denoted by dagger/plus sign

---

<sup>\*1</sup> square brackets

<sup>\*2</sup> square brackets

<sup>+1</sup> square brackets

## 7. database commands

dbi - database interface

–D or –pgsql set for postgresql -d or –sqlite default set for sqlite -d is modifiable with –db=[database type (pgsql or sqlite)]

### **–Dv –createall**

initial step, creates required relations (tables, indexes) in existing postgresql database (a database should be created manually and given the same name as working directory, as requested) (rb.dbi) [ -dv –createall sqlite equivalent] it may be necessary to run sisu -Dv –createdb initially NOTE: at the present time for postgresql it may be necessary to manually create the database. The command would be ‘createdb [database name]’ where database name would be SiSU\_[present working directory name (without path)]. Please use only alphanumerics and underscores.

### **–Dv –import**

filename/wildcard

imports data specified to postgresql db (rb.dbi) [ -dv –import sqlite equivalent]

### **–Dv –update**

filename/wildcard

updates/imports specified data to postgresql db (rb.dbi) [ -dv –update sqlite equivalent]

### **–D –remove**

filename/wildcard

removes specified data to postgresql db (rb.dbi) [ -d –remove sqlite equivalent]

### **–D –dropall**

kills data” and drops (postgresql or sqlite) db, tables and indexes [ -d –dropall sqlite equivalent]



155

The v in e.g. -Dv is for verbose output.

## 8. Shortcuts, Shorthand for multiple flags

156

### **-update [filename/wildcard]**

157

Checks existing file output and runs the flags required to update this output. This means that if only html and pdf output was requested on previous runs, only the -hp files will be applied, and only these will be generated this time, together with the summary. This can be very convenient, if you offer different outputs of different files, and just want to do the same again.

### **-0 to -5 [filename or wildcard]**

158

Default shorthand mappings (note that the defaults can be changed/configured in the sisurc.yml file):

#### **-0**

159

-mNhwpAobxXyYv [this is the default action run when no options are give, i.e. on 'sisu [filename]']

#### **-1**

160

-mNHwpy

#### **-2**

161

-mNHwpaoy

#### **-3**

162

-mNhwpAobxXyY

#### **-4**

163

-mNhwpAobxXDyY -import

#### **-5**

164

-mNhwpAobxXDyY -update

add -v for verbose mode and -c for color, e.g. sisu -2vc [filename or wildcard]

165

consider -u for appended url info or -v for verbose output

166

### 8.0.1 Command Line with Flags - Batch Processing

In the data directory run `sisu -mh filename` or wildcard eg. “`sisu -h cisg.sst`” or “`sisu -h *.{sst,ssm}`” to produce html version of all documents.

Running `sisu` (alone without any flags, filenames or wildcards) brings up the interactive help, as does any `sisu` command that is not recognised. Enter to escape.

## 9. Introduction to SiSU Markup<sup>15</sup>

### 9.1 Summary

**SiSU** source documents are plaintext (UTF-8)<sup>16</sup> files

All paragraphs are separated by an empty line.

Markup is comprised of:

- 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.

Some interactive help on markup is available, by typing `sisu` and selecting `markup` or `sisu -help markup`

<sup>15</sup> From sometime after SiSU 0.58 it should be possible to describe SiSU markup using SiSU, which though not an original design goal is useful.

<sup>16</sup> files should be prepared using UTF-8 character encoding

## 9.2 Markup Examples

### 9.2.1 Online

Online markup examples are available together with the respective outputs produced from <http://www.jus.uio.no/sisu/SiSU/2.html> or from [http://www.jus.uio.no/sisu/sisu\\_examples/](http://www.jus.uio.no/sisu/sisu_examples/)

There is of course this document, which provides a cursory overview of sisu markup and the respective output produced: [http://www.jus.uio.no/sisu/sisu\\_markup/](http://www.jus.uio.no/sisu/sisu_markup/)

Some example marked up files are available as html with syntax highlighting for viewing: <http://www.jus.uio.no/sisu/sample/syntax>

an alternative presentation of markup syntax: [http://www.jus.uio.no/sisu/sample/on\\_markup.txt](http://www.jus.uio.no/sisu/sample/on_markup.txt)

### 9.2.2 Installed

With **SiSU** installed sample skins may be found in: `/usr/share/doc/sisu/sisu_markup_samples/dfsg` (or equivalent directory) and if `sisu-markup-samples` is installed also under: `/usr/share/doc/sisu/sisu_markup_samples/non-free`

## 10. Markup of Headers

Headers consist of semantic meta-data about a document, which can be used by any output module of the program; and may in addition include extra processing instructions.

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

```
% this would be a comment
```

### 10.1 Sample Header

This current document has a header similar to this one (without the comments):

```
% SiSU 0.57
@title: SiSU
@subtitle: Markup [0.58]
@copyright: Copyright (C) Ralph Amissah 2007, part of SiSU documentation, License GPL 3
@type: information
@subject: ebook, epubliing, electronic book, electronic publishing, electronic document, electronic citation,
data structure, citation systems, search
@date.created: 2002-08-28
@date.issued: 2002-08-28
@date.available: 2002-08-28
@date.modified: 2007-09-16
@date: 2007-09-16
@level: new=C; break=1; num_top=1
% comment: in this @level header num_top=1 starts automatic heading numbering at heading level 1 (num-
bering continues 3 levels down); the new and break instructions are used by the LaTeX/pdf and odf output to
determine where to put page breaks (that are not used by html output or say sql database population).
@skin: skin_sisu_manual
% skins modify the appearance of a document and are placed in a sub-directory under ./sisu/skin ~ ./sisu/skin
or /etc/sisu/skin. A skin may affect single documents that request them, all documents in a directory, or be
site-wide. (A document is affected by a single skin)
@bold: /Gnu|Debian|Ruby|SiSU/
```

@links: { SiSU Manual }[http://www.jus.uio.no/sisu/sisu\\_manual/](http://www.jus.uio.no/sisu/sisu_manual/)  
 { Book Samples and Markup Examples }<http://www.jus.uio.no/sisu/SiSU/2.html>  
 { SiSU @ Wikipedia }<http://en.wikipedia.org/wiki/SiSU>  
 { SiSU @ Freshmeat }<http://freshmeat.net/projects/sisu/>  
 { SiSU @ Ruby Application Archive }<http://raa.ruby-lang.org/project/sisu/>  
 { SiSU @ Debian }<http://packages.qa.debian.org/s/sisu.html>  
 { SiSU Download }<http://www.jus.uio.no/sisu/SiSU/download.html>  
 { SiSU Changelog }<http://www.jus.uio.no/sisu/SiSU/changelog.html>

211

**@publisher:****@contributor:**

212

**@translator:** [or **@translated\_by:**]

213

**@illustrator:** [or **@illustrated\_by:**]

214

**@prepared\_by:** [or **@digitized\_by:**]

215

**@date:** **2000-08-27** [ also **@date.created:** **@date.issued:**

216

**@date.available:** **@date.valid:** **@date.modified:** ]**@type:** article

217

**@format:**

218

**@identifier:**

219

**@source:**

220

**@language:** [or **@language.document:**] [country code for language if available, or language, English, en is the default setting] (en - English, fr - French, de - German, it - Italian, es - Spanish, pt - Portuguese, sv - Swedish, da - Danish, fi - Finnish, no - Norwegian, is - Icelandic, nl - Dutch, et - Estonian, hu - Hungarian, pl - Polish, ro - Romanian, ru - Russian, el - Greek, uk - Ukrainian, tr - Turkish, sk - Slovak, sl - Slovenian, hr - Croatian, cs - Czech, bg - Bulgarian) [however, encodings are not available for all of the languages listed.]

221

[**@language.original:** original language in which the work was published]

222

**@papersize:** (A4|US\_letter|book\_B5|book\_A5|US\_legal)

223

**@relation:**

224

**@coverage:**

225

**@rights:** Copyright (c) Name of Right Holder, all rights reserved, or as granted: public domain, copyleft, creative commons variant, etc.

226

**@owner:**

227

## 10.2 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 either the form **@headername:** or **0~ headername**. 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 0.38** [declared file-type identifier with markup version]

**@title:** [title text] This is the title of the document and used as such, this header is the only one that is mandatory

**@subtitle:** The Subtitle if any

**@creator:** [or **@author:**] Name of Author

**@subject:** (whatever your subject)

**@description:**

**@keywords:** text document generation processing management latex pdf structured xml citation [your keywords here, used for example by rss feeds, and in sql searches]

**@abstract:** [paper abstract, placed after table of contents]

**@comment:** [...]

**@catalogue:** loc=[Library of Congress classification]; dewey=[Dewey classification]; isbn=[ISBN]; pg=[Project Gutenberg text number]

**@classify\_loc:** [Library of Congress classification]

**@classify\_dewey:** [Dewey classification]

**@classify\_isbn:** [ISBN]

**@classify\_pg:** [Project Gutenberg text number]

**@prefix:** [prefix is placed just after table of contents]

**@prefix\_a:** [prefix is placed just before table of contents - not implemented]

**@prefix\_b:**

**@rcs:** \$Id: sisu\_markup.sst,v 1.2 2007/09/08 17:12:47 ralph Exp \$ [used by rcs or cvs to embed version (revision control) information into document, rcs or cvs can usefully provide a history of updates to a document ]

**@structure:** PART; CHAPTER; SECTION; ARTICLE; none; none; optional, document structure can be defined by words to match or regular expression (the regular expression is assumed to start at the beginning of a line of text i.e. *defaultmarkers : A~to : C~and1to6canbeusedwithintextinstead, without this headertag, and may be used to supplement the instructions provided in this headertag if provided( @structure : is*

**@level:** newpage=3; breakpage=4

paragraph level, used by latex to breakpages, the page is optional eg. in newpage

**@markup:** information on the markup used, e.g. new=1,2,3; break=4; num\_top=4 [or newpage=1,2,3; breakpage=4; num\_top=4] newpage and breakpage, heading level, used by LaTeX to breakpages. breakpage: starts on a new page in single column text and on a new column in double column text; newpage: starts on a new page for both single and double column texts.

num\_top=4 [auto-number document, starting at level 4. the default is to provide 3 levels, as in 1 level 4, 1.1 level 5, 1.1.1 level 6, markup to be merged within level]

num\_extract [take numbering of headings provided (manually in marked up source document), and use for numbering of segments. Available where a clear numbering structure is provided within document, without the repetition of a number in a header.] [In 0.38 notation, you would map to the equivalent levels, the examples provided would map to the following new=A,B,C; break=1; num\_top=1 [or newpage=A,B,C; breakpage=1; num\_top=1] see headings]

**@bold:** [regular expression of words/phrases to be made bold]

**@italics:** [regular expression of words/phrases to italicise]

**@vocabulary:** name of taxonomy/vocabulary/wordlist to use against document

**@skin:** skin\_doc\_[name\_of\_desired\_document\_skin]

skins change default settings related to the appearance of documents generated, such as the urls of the home site, and the icon/logo for the document or site.

**@links:** { SiSU }http://www.jus.uio.no/sisu/;  
{ FSF }http://www.fsf.org

**@promo:** sisu, ruby, search\_libre\_docs, open\_society

places content in right pane in html, makes use of list.yml and promo.yml, commented out sample in document sample:

free\_as\_in\_freedom.richard\_stallman\_crusade\_for\_free\_software.sam\_williams.sst

## 11. Markup of Substantive Text

### 11.1 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

1~ filename level 1 heading,

% the primary division such as Chapter that is followed by substantive text, and may be further subdivided (this is the level on which by default html segments are made)

## 11.2 Font Attributes

### markup example:

```
normal text !{emphasis}! *{bold text}* _{underscore}_ /{italics}/ "{citation}" {superscript} {subscript}, +{inserted text} -{strikethrough}-
normal text
!{emphasis}!
*{bold text}*
_{underscore}_
/{italics}/
"{citation}"
{superscript}
,{subscript},
+{inserted text}+
-{strikethrough}-
```

### resulting output:

normal text **emphasis** **bold text** underscore *italics* ;cite¿citation¿/cite¿  
superscript subscript inserted text ~~strikethrough~~

normal text

**emphasis**

**bold text**

underscore

*italics*

;cite¿citation¿/cite¿

superscript

subscript

inserted text

~~strikethrough~~

## 11.3 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.

<=hash; numbered list numbered list indented a., b., c., d., etc.

## 11.4 Footnotes / Endnotes

Footnotes and endnotes not distinguished in markup. They are automatically numbered. Depending on the output file format (html, odf, pdf etc.), the document output selected will have either footnotes or endnotes.

### markup example:

{ a footnote or endnote }

### resulting output:

17

### markup example:

normal text { self contained endnote marker & endnote in one } continues

### resulting output:

normal text<sup>18</sup> continues

### markup example:

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

normal text { \*\* another unnumbered asterisk footnote/endnote } continues

### resulting output:

normal text \* continues

normal text \*\* continues

### markup example:

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

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

### resulting output:

normal text <sup>\*3</sup> continues

<sup>17</sup> a footnote or endnote

<sup>18</sup> self contained endnote marker and endnote in one

\* unnumbered asterisk footnote/endnote, insert multiple asterisks if required

\*\* another unnumbered asterisk footnote/endnote

normal text <sup>+2</sup> continues

## Alternative endnote pair notation for footnotes/endnotes:

% note the endnote marker "

the standard and pair notation cannot be mixed in the same document

## 11.5 Links

### 11.5.1 Naked URLs within text, dealing with urls

urls are found within text and 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).

#### markup example:

normal text <http://www.jus.uio.no/sisu> continues

#### resulting output:

normal text <<http://www.jus.uio.no/sisu>> continues

An escaped url without decoration

#### markup example:

normal text <http://www.jus.uio.no/sisu> continues

deb <http://www.jus.uio.no/sisu/archive> unstable main non-free

#### resulting output:

normal text <http://www.jus.uio.no/sisu> continues

deb <http://www.jus.uio.no/sisu/archive> unstable main non-free

where a code block is used there is neither decoration nor hyperlinking,

<sup>\*3</sup> editors notes, numbered asterisk footnote/endnote series

<sup>+2</sup> editors notes, numbered asterisk footnote/endnote series

code blocks are discussed later in this document

#### resulting output:

deb <http://www.jus.uio.no/sisu/archive> unstable main non-free

deb-src <http://www.jus.uio.no/sisu/archive> unstable main non-free

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

#### markup example:

about { SiSU }<http://url.org> markup

### 11.5.2 Linking Text

#### resulting output:

about [SiSU](#) markup

A shortcut notation is available so the url link may also be provided automatically as a footnote

#### markup example:

about {

#### resulting output:

about [SiSU](#)<sup>19</sup> markup

### 11.5.3 Linking Images

#### markup example:

{tux.png 64x80 }image

% various url linked images

{tux.png 64x80 "a better way" }<http://www.jus.uio.no/sisu/>

{GnuDebianLinuxRubyBetterWay.png 100x101 "Way Better - with Gnu/Linux, Debian and Ruby"}<http://www.jus.uio.no/sisu/>

{

#### resulting output:

<sup>19</sup> <<http://www.jus.uio.no/sisu/>>



345



346



Gnu/Linux - a better way

347

[ ruby\_logo (png missing) ] <sup>20</sup>

348



Way Better - with Gnu/Linux, Debian and Ruby

349

**linked url footnote shortcut**

350

{

351

text marker \*ñame

352

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.

353

**11.6 Grouped Text**

**11.6.1 Tables**

354

Tables may be prepared in two either of two forms

355

**markup example:**

356

table{ c3; 40; 30; 30;

357

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

}table

**resulting output:**

358

359

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

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

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

	Jan. 2001	Jan. 2002	Jan. 2003	Jan. 2004	July 2004	June 2006
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	1,600,000

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

## 11.6.2 Poem

### basic markup:

```
poem{
```

```
    Your poem here
```

```
}poem
```

Each verse in a poem is given a separate object number.

### markup example:

```
poem{
```

```
    '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.”

```
}poem
```

### 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.””

### 11.6.3 Group

374

#### basic markup:

375

```
group{
```

```
  Your grouped text here
```

```
}group
```

376

A group is treated as an object and given a single object number.

#### markup example:

377

```
group{
```

```
  '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
```

378

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."

}group

### 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,"

379  
 380

Said  
cunning  
old Fury:  
"I'll  
try the  
whole  
cause,  
and  
condemn  
you  
to  
death."

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."

#### 11.6.4 Code

Code tags 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

## 12. 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|@|^j
<< |filename2.ssi|@|^j
```

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. Alternative markup for importation of documents under consideration, and occasionally supported have been.

```
r{filename}
{filename.ssi}require
<< {filename.ssi}
% using textlink alternatives
|filename.ssi|@|^jrequire
<< |filename.ssi|@|^j
% using thlnk alternatives
<url:filename.ssi>require
<< <url:filename.ssi>
```

## MARKUP SYNTAX HISTORY

### 13. Notes related to Files-types and Markup Syntax

0.38 is substantially current, depreciated 0.16 supported, though file names were changed at 0.37 394

**0.52** (2007w14/6) declared document type identifier at start of text/document: 395

**SiSU** 0.52 396

or, backward compatible using the comment marker: 397

**% SiSU** 0.38 398

variations include ‘**SiSU** (text|master|insert) [version]’ and ‘sisu-[version]’ 399

**0.51** (2007w13/6) skins changed (simplified), markup unchanged 400

**0.42** (2006w27/4) \* (asterisk) type endnotes, used e.g. in relation to author 401

**0.38** (2006w15/7) introduced new/alternative notation for headers, e.g. @title: (instead of 0~ title), and accompanying document structure markup, :A,:B,:C,1,2,3 (maps to previous 1,2,3,4,5,6) 402

**0.37** (2006w09/7) introduced new file naming convention, .sst (text), .ssm (master), .ssi (insert), markup syntax unchanged 403

**0.35** (2005w52/3) sisupod, zipped content file introduced 404

**0.23** (2005w36/2) utf-8 for markup file 405

**0.22** (2005w35/3) image dimensions may be omitted if rmagick is available to be relied upon 406

**0.20.4** (2005w33/4) header 0~ links 407

**0.16** (2005w25/2) substantial changes introduced to make markup cleaner, header 0~ title type, and headings [1-6]~ introduced, also percentage sign (%) at start of a text line as comment marker 408

## 14. SiSU filetypes

SiSU has plaintext and binary filetypes, and can process either type of document.

### 14.1 .sst .ssm .ssi marked up plain text

SiSU documents are prepared as plain-text (utf-8) files with SiSU markup. They may make reference to and contain images (for example), which are stored in the directory beneath them `_sisu/image`. SiSU plaintext markup files are of three types that may be distinguished by the file extension used: regular text `.sst`; master documents, composite documents that incorporate other text, which can be any regular text or text insert; and inserts the contents of which are like regular text except these are marked `.ssi` and are not processed.

SiSU processing can be done directly against a sisu documents; which may be located locally or on a remote server for which a url is provided.

SiSU source markup can be shared with the command:

```
sisu -s [filename]
```

#### 14.1.1 sisu text - regular files (.sst)

The most common form of document in SiSU, see the section on SiSU markup.

[<http://www.jus.uio.no/sisu/sisu\\_markup>](http://www.jus.uio.no/sisu/sisu_markup)

[<http://www.jus.uio.no/sisu/sisu\\_manual>](http://www.jus.uio.no/sisu/sisu_manual)

#### 14.1.2 sisu master files (.ssm)

Composite documents which incorporate other SiSU documents which

may be either regular SiSU text `.sst` which may be generated independently, or inserts prepared solely for the purpose of being incorporated into one or more master documents.

The mechanism by which master files incorporate other documents is described as one of the headings under under SiSU markup in the SiSU manual.

Note: Master documents may be prepared in a similar way to regular documents, and processing will occur normally if a `.sst` file is renamed `.ssm` without requiring any other documents; the `.ssm` marker flags that the document may contain other documents.

Note: a secondary file of the composite document is built prior to processing with the same prefix and the suffix `..sst`<sup>22</sup>

[<http://www.jus.uio.no/sisu/sisu\\_markup>](http://www.jus.uio.no/sisu/sisu_markup)

[<http://www.jus.uio.no/sisu/sisu\\_manual>](http://www.jus.uio.no/sisu/sisu_manual)

#### 14.1.3 sisu insert files (.ssi)

Inserts are documents prepared solely for the purpose of being incorporated into one or more master documents. They resemble regular SiSU text files except they are ignored by the SiSU processor. Making a file a `.ssi` file is a quick and convenient way of flagging that it is not intended that the file should be processed on its own.

### 14.2 sisupod, zipped binary container (sisupod.zip, .ssp)

A sisupod is a zipped SiSU text file or set of SiSU text files and any

<sup>22</sup> `.ssc` (for composite) is under consideration but `..sst` makes clear that this is not a regular file to be worked on, and thus less likely that people will have “accidents”, working on a `.ssc` file that is overwritten by subsequent processing. It may be however that when the resulting file is shared `.ssc` is an appropriate suffix to use.



associated images that they contain (this will be extended to include sound and multimedia-files)

**SiSU** plaintext files rely on a recognised directory structure to find contents such as images associated with documents, but all images for example for all documents contained in a directory are located in the sub-directory `_sisu/image`. Without the ability to create a `sisupod` it can be inconvenient to manually identify all other files associated with a document. A `sisupod` automatically bundles all associated files with the document that is turned into a pod.

The structure of the `sisupod` is such that it may for example contain a single document and its associated images; a master document and its associated documents and anything else; or the zipped contents of a whole directory of prepared **SiSU** documents.

The command to create a `sisupod` is:

```
sisu -S [filename]
```

Alternatively, make a pod of the contents of a whole directory:

```
sisu -S
```

**SiSU** processing can be done directly against a `sisupod`; which may be located locally or on a remote server for which a url is provided.

<[http://www.jus.uio.no/sisu/sisu\\_commands](http://www.jus.uio.no/sisu/sisu_commands)>

<[http://www.jus.uio.no/sisu/sisu\\_manual](http://www.jus.uio.no/sisu/sisu_manual)>

## 15. Experimental Alternative Input Representations

### 15.1 Alternative XML

**SiSU** offers alternative XML input representations of documents as a proof of concept, experimental feature. They are however not strictly maintained, and incomplete and should be handled with care.

**convert from sst to simple xml representations (sax, dom and node):**

```
sisu -to-sax [filename/wildcard] or sisu -to-sxs [filename/wildcard]
```

```
sisu -to-dom [filename/wildcard] or sisu -to-sxd [filename/wildcard]
```

```
sisu -to-node [filename/wildcard] or sisu -to-sxn [filename/wildcard]
```

**convert to sst from any sisu xml representation (sax, dom and node):**

```
sisu -from-xml2sst [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

or the same:

```
sisu -from-sxml [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

#### 15.1.1 XML SAX representation

To convert from sst to simple xml (sax) representation:

```
sisu -to-sax [filename/wildcard] or sisu -to-sxs [filename/wildcard]
```

To convert from any sisu xml representation back to sst

```
sisu -from-xml2sst [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

or the same:

```
sisu -from-sxml [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

### 15.1.2 XML DOM representation

458

To convert from sst to simple xml (dom) representation:

```
sisu -to-dom [filename/wildcard] or sisu -to-sxd [filename/wildcard]
```

To convert from any sisu xml representation back to sst

```
sisu -from-xml2sst [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

or the same:

```
sisu -from-sxml [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

### 15.1.3 XML Node representation

To convert from sst to simple xml (node) representation:

```
sisu -to-node [filename/wildcard] or sisu -to-sxn [filename/wildcard]
```

To convert from any sisu xml representation back to sst

```
sisu -from-xml2sst [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

or the same:

```
sisu -from-sxml [filename/wildcard [.sxs.xml,.sxd.xml,sxn.xml]]
```

## 16. Configuration

472

### 16.1 Determining the Current Configuration

473

Information on the current configuration of **SiSU** should be available with the help command:

```
sisu -v
```

475

which is an alias for:

```
sisu -help env
```

477

Either of these should be executed from within a directory that contains sisu markup source documents.

478

### 16.2 Configuration files (config.yml)

479

**SiSU** configuration parameters are adjusted in the configuration file, which can be used to override the defaults set. This includes such things as which directory interim processing should be done in and where the generated output should be placed.

480

The **SiSU** configuration file is a yaml file, which means indentation is significant.

481

**SiSU** resource configuration is determined by looking at the following files if they exist:

482

```
./_sisu/sisurc.yml
```

483

```
~/.sisu/sisurc.yml
```

484

```
/etc/sisu/sisurc.yml
```

485

The search is in the order listed, and the first one found is used.

486

In the absence of instructions in any of these it falls back to the internal program defaults.

487

Configuration determines the output and processing directories and the

488

database access details.

If **SiSU** is installed a sample `sisurc.yml` may be found in `/etc/sisu/sisurc.yml`

## 17. Skins

Skins modify the default appearance of document output on a document, directory, or site wide basis. Skins are looked for in the following locations:

`./_sisu/skin`

`~/.sisu/skin`

`/etc/sisu/skin`

**Within the skin directory** are the following the default sub-directories for document skins:

`./skin/doc`

`./skin/dir`

`./skin/site`

A skin is placed in the appropriate directory and the file named `skin_[name].rb`

The skin itself is a ruby file which modifies the default appearances set in the program.

### 17.1 Document Skin

Documents take on a document skin, if the header of the document specifies a skin to be used.

`@skin: skin_united_nations`

### 17.2 Directory Skin

A directory may be mapped on to a particular skin, so all documents within that directory take on a particular appearance. If a skin exists in the `skin/dir` with the same name as the document directory, it will automatically be used for each of the documents in that directory, (except

where a document specifies the use of another skin, in the skin/doc directory).

A personal habit is to place all skins within the doc directory, and symbolic links as needed from the site, or dir directories as required.

### 17.3 Site Skin

A site skin, modifies the program default skin.

### 17.4 Sample Skins

With SiSU installed sample skins may be found in:

`/etc/sisu/skin/doc` and `/usr/share/doc/sisu/sisu_markup_samples/dfsg/_sisu/skin/doc`

(or equivalent directory) and if sisu-markup-samples is installed also under:

`/usr/share/doc/sisu/sisu_markup_samples/non-free/_sisu/skin/doc`

Samples of `list.yml` and `promo.yml` (which are used to create the right column list) may be found in:

`/usr/share/doc/sisu/sisu_markup_samples/dfsg/_sisu/skin/yml` (or equivalent directory)

## 18. CSS - Cascading Style Sheets (for html, XHTML and XML)

CSS files to modify the appearance of SiSU html, XHTML or XML may be placed in the configuration directory: `./_sisu/css`; `~/.sisu/css` or; `/etc/sisu/css` and these will be copied to the output directories with the command `sisu -CC`.

The basic CSS file for html output is `html.css`, placing a file of that name in directory `_sisu/css` or equivalent will result in the default file of that name being overwritten.

HTML: `html.css`

XML DOM: `dom.css`

XML SAX: `sax.css`

XHTML: `xhtml.css`

The default homepage may use `homepage.css` or `html.css`

Under consideration is to permit the placement of a CSS file with a different name in directory `_sisu/css` directory or equivalent, and change the default CSS file that is looked for in a skin.<sup>23</sup>

<sup>23</sup> SiSU has worked this way in the past, though this was dropped as it was thought the complexity outweighed the flexibility, however, the balance was rather fine and this behaviour could be reinstated.

## 19. Organising Content

### 19.1 Directory Structure and Mapping

The output directory root can be set in the `sisurc.yml` file. Under the root, subdirectories are made for each directory in which a document set resides. If you have a directory named `poems` or `conventions`, that directory will be created under the output directory root and the output for all documents contained in the directory of a particular name will be generated to subdirectories beneath that directory (`poem` or `conventions`). A document will be placed in a subdirectory of the same name as the document with the filetype identifier stripped (`.sst` `.ssm`)

The last part of a directory path, representing the sub-directory in which a document set resides, is the directory name that will be used for the output directory. This has implications for the organisation of document collections as it could make sense to place documents of a particular subject, or type within a directory identifying them. This grouping as suggested could be by subject (`sales_law`, `english_literature`); or just as conveniently by some other classification (`X University`). The mapping means it is also possible to place in the same output directory documents that are for organisational purposes kept separately, for example documents on a given subject of two different institutions may be kept in two different directories of the same name, under a directory named after each institution, and these would be output to the same output directory. Skins could be associated with each institution on a directory basis and resulting documents will take on the appropriate different appearance.

### 19.2 Organising Content

## 20. Homepages

**SiSU** is about the ability to auto-generate documents. Home pages are regarded as custom built items, and are not created by **SiSU**. More accurately, **SiSU** has a default home page, which will not be appropriate for use with other sites, and the means to provide your own home page instead in one of two ways as part of a site's configuration, these being:

1. through placing your home page and other custom built documents in the subdirectory `_sisu/home/` (this probably being the easier and more convenient option)
2. through providing what you want as the home page in a skin,

Document sets are contained in directories, usually organised by site or subject. Each directory can/should have its own homepage. See the section on directory structure and organisation of content.

### 20.1 Home page and other custom built pages in a sub-directory

Custom built pages, including the home page `index.html` may be placed within the configuration directory `_sisu/home/` in any of the locations that is searched for the configuration directory, namely `./_sisu`; `~/_sisu`; `/etc/sisu`. From there they are copied to the root of the output directory with the command:

```
sisu -CC
```

### 20.2 Home page within a skin

Skins are described in a separate section, but basically are a file written in the programming language **Ruby** that may be provided to change the defaults that are provided with `sisu` with respect to individual documents, a directories contents or for a site.

If you wish to provide a homepage within a skin the skin should be in the

directory `_sisu/skin/dir` and have the name of the directory for which it is to become the home page. Documents in the directory `commercial_law` would have the homepage modified in `skin_commercial law.rb`; or the directory `poems` in `skin_poems.rb`

```
class Home
  def homepage
    # place the html content of your homepage here, this will become index.html
    <<HOME <html>
<head></head>
<doc>
<p>this is my new homepage.</p>
</doc>
</html>
HOME
  end
end
```

## 21. Markup and Output Examples

### 21.1 Markup examples

Current markup examples and document output samples are provided at

[<http://www.jus.uio.no/sisu/SiSU/2.html>](http://www.jus.uio.no/sisu/SiSU/2.html)

Some markup with syntax highlighting may be found under

[<http://www.jus.uio.no/sisu/sample/syntax>](http://www.jus.uio.no/sisu/sample/syntax) but is not as up to date.

For some documents hardly any markup at all is required at all, other than a header, and an indication that the levels to be taken into account by the program in generating its output are.

547

21.2 A few book (and other) examples



548

Aukio, by Leena Krohn<sup>24</sup>

549

“The Wealth of Networks”, Yochai Benkler

550

“The Wealth of Networks”, Yochai Benkler

<sup>24</sup> Reproduced with the kind permission of author and artist Leena Krohn, <http://www.kaapeli.fi/krohn> “Aukio” is from the work “Sphinx or Robot” [http://www.jus.uio.no/sisu/sphinx\\_or\\_robot.leena\\_krohn.1996](http://www.jus.uio.no/sisu/sphinx_or_robot.leena_krohn.1996) which is included as a book example in this section, together with another of the author’s works, “Tainaron” [http://www.jus.uio.no/sisu/tainaron.leena\\_krohn.1998](http://www.jus.uio.no/sisu/tainaron.leena_krohn.1998)

document manifest<sup>25</sup>

551

html, segmented text

552

html, scroll, document in one

553

pdf, landscape

554

pdf, portrait

555

open document

556

xhtml scroll

557

xml, sax

558

xml, dom

559

plain text utf-8

560

concordance

561

dcc, document content certificate (digests)

562

markup source text

563

zipped markup source pod

564

“Free Culture”, Lawrence Lessig

565

“Free Culture”, Lawrence Lessig

566

document manifest<sup>26</sup>

567

html, segmented text

568

html, scroll, document in one

569

pdf, landscape

570

pdf, portrait

571

open document

572

<sup>25</sup> [http://www.jus.uio.no/sisu/sisu\\_manual/the\\_wealth\\_of\\_networks.yochai\\_benkler/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/the_wealth_of_networks.yochai_benkler/sisu_manifest.html)

<sup>26</sup> [http://www.jus.uio.no/sisu/sisu\\_manual/free\\_culture.lawrence\\_lessig/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/free_culture.lawrence_lessig/sisu_manifest.html)

573	xhtml scroll	dcc, document content certificate (digests)	594
574	xml, sax	markup source text	595
575	xml, dom	zipped markup source pod	596
576	plain text utf-8		
577	concordance	<b><i>“Free For All: How Linux and the Free Software Movement Undercut the High Tech Titans”, by Peter Wayner</i></b>	597
578	dcc, document content certificate (digests)		
579	markup source text	<b><i>“Free For All: How Linux and the Free Software Movement Undercut the High Tech Titans”, by Peter Wayner</i></b>	598
580	zipped markup source pod		
581	<b><i>“Free as in Freedom: Richard Stallman’s Crusade for Free Software”, by Sam Williams</i></b>	document manifest <sup>28</sup>	599
582	<b><i>“Free as in Freedom: Richard Stallman’s Crusade for Free Software”, by Sam Williams</i></b>	html, segmented text	600
583	document manifest <sup>27</sup>	html, scroll, document in one	601
584	html, segmented text	pdf, landscape	602
585	html, scroll, document in one	pdf, portrait	603
586	pdf, landscape	open document	604
587	pdf, portrait	xhtml scroll	605
588	open document	xml, sax	606
589	xhtml scroll	xml, dom	607
590	xml, sax	plain text utf-8	608
591	xml, dom	concordance	609
592	plain text utf-8	dcc, document content certificate (digests)	610
593	concordance	markup source text	611
		zipped markup source pod	612

<sup>27</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/free\\_as\\_in\\_freedom.richard\\_stallman\\_crusade\\_for\\_free\\_software.sam\\_williams/sisu\\_manifestum](http://www.jus.uio.no/sisu/sisu_manual/free_as_in_freedom.richard_stallman_crusade_for_free_software.sam_williams/sisu_manifestum)>



**“The Cathedral and the Bazaar”, by Eric S. Raymond**

613

pdf, landscape

634

pdf, portrait

635

open document

636

xhtml scroll

637

xml, sax

638

xml, dom

639

plain text utf-8

640

concordance

641

dcc, document content certificate (digests)

642

markup source text

643

zipped markup source pod

644

**“Tainaron”, Leena Krohn**

645

“Tainaron”, Leena Krohn

646

document manifest<sup>31</sup>

647

html, segmented text

648

html, scroll, document in one

649

pdf, landscape

650

pdf, portrait

651

open document

652

xhtml scroll

653

xml, sax

654

xml, dom

655

614 “The Cathedral and the Bazaar”, by Eric S. Raymond

615 document manifest<sup>29</sup>

616 html, segmented text

617 html, scroll, document in one

618 pdf, landscape

619 pdf, portrait

620 open document

621 xhtml scroll

622 xml, sax

623 xml, dom

624 plain text utf-8

625 concordance

626 dcc, document content certificate (digests)

627 markup source text

628 zipped markup source pod

**“Accelerando”, Charles Stross**

630 “Accelerando”, Charles Stross

631 document manifest<sup>30</sup>

632 html, segmented text

633 html, scroll, document in one

<sup>28</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/free\\_for\\_all.peter\\_wayner/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/free_for_all.peter_wayner/sisu_manifest.html)>

<sup>29</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/the\\_cathedral\\_and\\_the\\_bazaar.eric\\_s\\_raymond/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/the_cathedral_and_the_bazaar.eric_s_raymond/sisu_manifest.html)>

<sup>30</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/accelerando.charles\\_stross/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/accelerando.charles_stross/sisu_manifest.html)>

plain text utf-8

concordance

dcc, document content certificate (digests)

markup source text

zipped markup source pod

## “Sphinx or Robot”, Leena Krohn



Sphinx or Robot by Leena Krohn

## “Sphinx or Robot”, Leena Krohn

document manifest <sup>32</sup>

html, segmented text

html, scroll, document in one

pdf, landscape

pdf, portrait

open document

xhtml scroll

xml, sax

xml, dom

plain text utf-8

concordance

<sup>31</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/taimon.leena\\_krohn.1998/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/taimon.leena_krohn.1998/sisu_manifest.html)>

<sup>32</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/sphinx\\_or\\_robot.leena\\_krohn.1996/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/sphinx_or_robot.leena_krohn.1996/sisu_manifest.html)>

dcc, document content certificate (digests)

markup source text

zipped markup source pod

## “War and Peace”, Leo Tolstoy, PG Etext 2600

## “War and Peace”, Leo Tolstoy <sup>33</sup>

document manifest <sup>34</sup>

<sup>33</sup> <[http://www.jus.uio.no/sisu/war\\_and\\_peace.leo\\_tolstoy/toc.html](http://www.jus.uio.no/sisu/war_and_peace.leo_tolstoy/toc.html)>

The ascii text was taken from Project Gutenberg. The markup transforms required are trivial. Of interest, in this instance I am saved by having alternative syntaxes/(structural modes) for marking up endnotes... as it was possible to do a simple search and replace to make the Project Gutenberg ascii presentation suitable for **SiSU**, using the older end-note markup style. This example instructs the program to use regular expressions, in this example the words: none; none; BOOK|FIRST|SECOND; CHAPTER; occurring at the beginning of a line, to identify what should be treated as different levels of heading in a document (and used to make the table of contents). Note that there was very little markup required after the document headers and Project Gutenberg legal notices. As I presume the legal notices are similar in Project Gutenberg documents, (and I could not bear to think of preparing the same legal notices twice), I moved those to the “skin” for the Project, and these are now represented in the markup by <:insert1> and <:insert2> and the legal notices are available for similar insertion into the next Project Gutenberg text prepared for **SiSU**, should there be one.

I did a stylesheet/skin for the Gutenberg Project, ... I may have to remove. The markup transforms required are trivial. Of interest, in this instance I am saved by having alternative syntaxes/(structural modes) for marking up endnotes... as it is possible to do a simple search and replace to make Project Gutenberg ascii presentations suitable for **SiSU** using the older endnote markup style. There is very little markup required after the document headers and Project Gutenberg legal notices. As I presume the legal notices are similar in Project Gutenberg documents, (and I could not bear to think of preparing the same legal notices twice), I moved those to the “skin” for the Project, and these are now represented in the markup by the <:insert1> and <:insert2> markers and the legal notices are available for similar insertion into the next Project Gutenberg text prepared for **SiSU**, should there be one.

<sup>34</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/war\\_and\\_peace.leo\\_tolstoy/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/war_and_peace.leo_tolstoy/sisu_manifest.html)>

681	html, segmented text	702	xhtml scroll	
682	html, scroll, document in one		xml, sax	703
683	pdf, landscape		xml, dom	704
684	pdf, portrait		plain text utf-8	705
685	open document		concordance	706
686	xhtml scroll		dcc, document content certificate (digests)	707
687	xml, sax		markup source text	708
688	xml, dom		zipped markup source pod	709
689	plain text utf-8		<b>“Gulliver’s Travels”, Jonathan Swift, transcribed from the 1892</b>	710
690	concordance		<b>George Bell and Sons edition by David Price, PG Etext 829</b>	
691	dcc, document content certificate (digests)		“Gulliver’s Travels”, Jonathan Swift	711
692	markup source text		document manifest <sup>36</sup>	712
693	zipped markup source pod		html, segmented text	713
694	<b>“Don Quixote”, Miguel de Cervantes [Saavedra], translated by John Ormsby, PG Etext 996</b>		html, scroll, document in one	714
695	“Don Quixote”, Miguel de Cervantes [Saavedra]		pdf, landscape	715
696	document manifest <sup>35</sup>		pdf, portrait	716
697	html, segmented text		open document	717
698	html, scroll, document in one		xhtml scroll	718
699	pdf, landscape		xml, sax	719
700	pdf, portrait		xml, dom	720
701	open document		plain text utf-8	721
			concordance	722
			dcc, document content certificate (digests)	723
		35	< <a href="http://www.jus.uio.no/sisu/sisu_manual/don_quixote.miguel_de_cervantes/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/don_quixote.miguel_de_cervantes/sisu_manifest.html</a> >	
		36	< <a href="http://www.jus.uio.no/sisu/sisu_manual/gullivers_travels.jonathan_swift/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/gullivers_travels.jonathan_swift/sisu_manifest.html</a> >	

724	markup source text	html, segmented text	745
725	zipped markup source pod	html, scroll, document in one	746
726	<b>“Alice’s Adventures in Wonderland”, Lewis Carroll, PG Etext 11</b>	pdf, landscape	747
727	“Alice’s Adventures in Wonderland”, Lewis Carroll	pdf, portrait	748
728	document manifest <sup>37</sup>	open document	749
729	html, segmented text	xhtml scroll	750
730	html, scroll, document in one	xml, sax	751
731	pdf, landscape	xml, dom	752
732	pdf, portrait	plain text utf-8	753
733	open document	concordance	754
734	xhtml scroll	dcc, document content certificate (digests)	755
735	xml, sax	markup source text	756
736	xml, dom	zipped markup source pod	757
737	plain text utf-8	<b>“Alice’s Adventures in Wonderland” and “Through The Looking-Glass”, Lewis Carroll, PG Etexts 11 and 12</b>	758
738	concordance		
739	dcc, document content certificate (digests)	“Alice’s Adventures in Wonderland” and “Through The Looking-Glass”, Lewis Carroll	759
740	markup source text		
741	zipped markup source pod	document manifest <sup>39</sup>	760
742	<b>“Through The Looking-Glass”, Lewis Carroll, PG Etext 12</b>	html, segmented text	761
743	“Through The Looking-Glass”, Lewis Carroll	html, scroll, document in one	762
744	document manifest <sup>38</sup>	pdf, landscape	763
		pdf, portrait	764
		open document	765

<sup>37</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/alices\\_adventures\\_in\\_wonderland.lewis\\_carroll/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/alices_adventures_in_wonderland.lewis_carroll/sisu_manifest.html)>

<sup>38</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/through\\_the\\_looking\\_glass.lewis\\_carroll/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/through_the_looking_glass.lewis_carroll/sisu_manifest.html)>

<sup>39</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/alices\\_adventures\\_in\\_wonderland\\_and\\_through\\_the\\_looking\\_glass.lewis\\_carroll/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/alices_adventures_in_wonderland_and_through_the_looking_glass.lewis_carroll/sisu_manifest.html)>

766	xhtml scroll	788	markup source text	
767	xml, sax		zipped markup source pod	789
768	xml, dom			
769	plain text utf-8		<b>“Gnu Public License v3 - Third discussion draft”, (GPLv3) Free Software Foundation</b>	790
770	concordance			
771	dcc, document content certificate (digests)		“Gnu Public License 3 - Third discussion draft”, (GPL v3 draft3) Free Software Foundation	791
772	markup source text			
773	zipped markup source pod		document manifest <sup>41</sup>	792
774	<b>“Gnu Public License 2”, (GPL 2) Free Software Foundation</b>		html, segmented text	793
775	“Gnu Public License 2”, (GPL 2) Free Software Foundation		html, scroll, document in one	794
776	document manifest <sup>40</sup>		pdf, landscape	795
777	html, segmented text		pdf, portrait	796
778	html, scroll, document in one		open document	797
779	pdf, landscape		xhtml scroll	798
780	pdf, portrait		xml, sax	799
781	open document		xml, dom	800
782	xhtml scroll		plain text utf-8	801
783	xml, sax		concordance	802
784	xml, dom		dcc, document content certificate (digests)	803
785	plain text utf-8		markup source text	804
786	concordance		zipped markup source pod	805
787	dcc, document content certificate (digests)			

	<b>“Debian Social Contract”</b>	82806	html, scroll, document in one	
			pdf, landscape	827
	<b>“Debian Social Contract”</b>	807	pdf, portrait	828
808	document manifest <sup>42</sup>		open document	829
809	html, segmented text		xhtml scroll	830
810	html, scroll, document in one		xml, sax	831
811	pdf, landscape		xml, dom	832
812	pdf, portrait		plain text utf-8	833
813	open document		concordance	834
814	xhtml scroll		dcc, document content certificate (digests)	835
815	xml, sax		markup source text	836
816	xml, dom		zipped markup source pod	837
817	plain text utf-8		<b>“Debian Constitution v1.3”, (markup adjusted for output to more closely match the original)</b>	838
818	concordance		<b>“Debian Constitution v1.3”, (markup adjusted for output to more closely match the original)</b>	839
819	dcc, document content certificate (digests)		document manifest <sup>44</sup>	840
820	markup source text		html, segmented text	841
821	zipped markup source pod		html, scroll, document in one	842
822	<b>“Debian Constitution v1.3”, (simple/default markup)</b>		pdf, landscape	843
823	<b>“Debian Constitution v1.3”</b>		pdf, portrait	844
824	document manifest <sup>43</sup>	40	< <a href="http://www.jus.uio.no/sisu/sisu_manual/gpl2.fsf/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/gpl2.fsf/sisu_manifest.html</a> >	
825	html, segmented text	41	< <a href="http://www.jus.uio.no/sisu/sisu_manual/gpl3_draft3.fsf/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/gpl3_draft3.fsf/sisu_manifest.html</a> >	
		42	< <a href="http://www.jus.uio.no/sisu/sisu_manual/debian_social_contract_v1.1/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/debian_social_contract_v1.1/sisu_manifest.html</a> >	
		43	< <a href="http://www.jus.uio.no/sisu/sisu_manual/debian_constitution_v1.3/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/debian_constitution_v1.3/sisu_manifest.html</a> >	
		44	< <a href="http://www.jus.uio.no/sisu/sisu_manual/debian_constitution_v1.3.adjusted/sisu_manifest.html">http://www.jus.uio.no/sisu/sisu_manual/debian_constitution_v1.3.adjusted/sisu_manifest.html</a> >	

845	open document	867	dcc, document content certificate (digests)	
846	xhtml scroll		markup source text	868
847	xml, sax		zipped markup source pod	869
848	xml, dom			
849	plain text utf-8		<b>“Debian Constitution v1.2”, (markup adjusted for output to more</b>	870
850	concordance		<b>closely match the original)</b>	
851	dcc, document content certificate (digests)		“Debian Constitution (more translations)”, (markup adjusted for output to	871
852	markup source text		more closely match the original)	
853	zipped markup source pod		document manifest <sup>46</sup>	872
			html, segmented text	873
854	<b>“Debian Constitution v1.2”, (simple/default markup)</b>		html, scroll, document in one	874
855	“Debian Constitution v1.2 (more translations)”		pdf, landscape	875
856	document manifest <sup>45</sup>		pdf, portrait	876
857	html, segmented text		open document	877
858	html, scroll, document in one		xhtml scroll	878
859	pdf, landscape		xml, sax	879
860	pdf, portrait		xml, dom	880
861	open document		plain text utf-8	881
862	xhtml scroll		concordance	882
863	xml, sax		dcc, document content certificate (digests)	883
864	xml, dom		markup source text	884
865	plain text utf-8		zipped markup source pod	885
866	concordance			

**“A Uniform Sales Terminology”, Vikki Rogers and Albert Kritzer** <sup>886</sup>

html, scroll, document in one 906  
pdf, landscape 907  
pdf, portrait 908  
open document 909  
xhtml scroll 910  
xml, sax 911  
xml, dom 912  
plain text utf-8 913  
concordance 914  
dcc, document content certificate (digests) 915  
markup source text 916  
zipped markup source pod 917

**“The Autonomous Contract Revisited” - markup sample** 918

“The Autonomous Contract Revisited” - markup sample <sup>49</sup> 919  
document manifest <sup>50</sup> 920

<sup>49</sup> <[http://www.jus.uio.no/sisu/autonomy\\_markup0/toc.html](http://www.jus.uio.no/sisu/autonomy_markup0/toc.html)>  
alternative markup variations revolving around endnotes  
(i) as above, markup with embedded endnotes, and header list of words/phrases to emphasise  
<[http://www.jus.uio.no/sisu/sample/syntax/autonomy\\_markup0.sst.html](http://www.jus.uio.no/sisu/sample/syntax/autonomy_markup0.sst.html)>  
<[http://www.jus.uio.no/sisu/sample/markup/autonomy\\_markup0.sst](http://www.jus.uio.no/sisu/sample/markup/autonomy_markup0.sst)>  
(ii) Again markup with embedded endnotes, but font faces changed within paragraphs rather than in header as in i  
<[http://www.jus.uio.no/sisu/sample/syntax/autonomy\\_markup1.sst.html](http://www.jus.uio.no/sisu/sample/syntax/autonomy_markup1.sst.html)>  
<[http://www.jus.uio.no/sisu/sample/markup/autonomy\\_markup1.sst](http://www.jus.uio.no/sisu/sample/markup/autonomy_markup1.sst)>  
(iii) Markup with endnote placemarks within paragraphs, the endnotes following the paragraph that contains them  
<[http://www.jus.uio.no/sisu/sample/syntax/autonomy\\_markup2.sst.html](http://www.jus.uio.no/sisu/sample/syntax/autonomy_markup2.sst.html)>

887 “A Uniform Sales Terminology”, Vikki Rogers and Albert Kritzer

888 document manifest <sup>47</sup>

889 html, segmented text

890 html, scroll, document in one

891 pdf, landscape

892 pdf, portrait

893 open document

894 xhtml scroll

895 xml, sax

896 xml, dom

897 plain text utf-8

898 concordance

899 dcc, document content certificate (digests)

900 markup source text

901 zipped markup source pod

**“The Autonomous Contract” 1997 - markup sample**

“The Autonomous Contract” 1997 - markup sample

document manifest <sup>48</sup>

html, segmented text

<sup>45</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/debian.constitution.v1.2/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/debian.constitution.v1.2/sisu_manifest.html)>

<sup>46</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/debian.constitution.v1.2.adjusted/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/debian.constitution.v1.2.adjusted/sisu_manifest.html)>

<sup>47</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/a\\_uniform\\_international\\_sales\\_terminology.vikki\\_rogers.and.albert\\_kritzer/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/a_uniform_international_sales_terminology.vikki_rogers.and.albert_kritzer/sisu_manifest.html)>

<sup>48</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/the\\_autonomous\\_contract.amissah.19970710/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/the_autonomous_contract.amissah.19970710/sisu_manifest.html)>



921	html, segmented text	html, segmented text	937
922	html, scroll, document in one	html, scroll, document in one	938
923	pdf, landscape	pdf, landscape	939
924	pdf, portrait	pdf, portrait	940
925	open document	open document	941
926	xhtml scroll	xhtml scroll	942
927	xml, sax	xml, sax	943
928	xml, dom	xml, dom	944
929	plain text utf-8	plain text utf-8	945
930	concordance	concordance	946
931	dcc, document content certificate (digests)	dcc, document content certificate (digests)	947
932	markup source text	markup source text	948
933	zipped markup source pod	zipped markup source pod	949

934 ***“United Nations Convention on Contracts for the International Sale of Goods”***

935 “United Nations Convention on Contracts for the International Sale of Goods”<sup>51</sup>

936 document manifest<sup>52</sup>

<[http://www.jus.uio.no/sisu/sample/markup/autonomy\\_markup2.sst](http://www.jus.uio.no/sisu/sample/markup/autonomy_markup2.sst)>

(iv) Another alternative is to place the marked up endnotes sequentially and at the end of the text. This also works. The paragraph variant iii is perhaps easier to visually check should there be missing endnotes; but this variant iv may better suit the conversion of alternatively pre-prepared documents.

<sup>50</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/autonomy\\_markup0/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/autonomy_markup0/sisu_manifest.html)>

<sup>51</sup> <[http://www.jus.uio.no/sisu/un\\_contracts\\_international\\_sale\\_of\\_goods\\_convention\\_1980/toc.html](http://www.jus.uio.no/sisu/un_contracts_international_sale_of_goods_convention_1980/toc.html)>

This example instructs the program to use regular expressions, in this example the words: Part, Chapter, Section, Article occurring at the beginning of a line, to identify what should

***PECL the “Principles of European Contract Law”***

“Principles of European Contract Law”

document manifest<sup>53</sup>

html, segmented text

html, scroll, document in one

be treated as different levels of heading in a document (and used to make the table of contents).

This example instructs the program to use regular expressions, in this example the words: Part, Chapter, Section, Article occurring at the beginning of a line, to identify what should be treated as different levels of heading in a document (and used to make the table of contents).

<sup>52</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/un\\_contracts\\_international\\_sale\\_of\\_goods\\_convention\\_1980/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/un_contracts_international_sale_of_goods_convention_1980/sisu_manifest.html)>

<sup>53</sup> <[http://www.jus.uio.no/sisu/sisu\\_manual/eu\\_contract\\_principles\\_parts\\_1\\_to\\_3\\_2002/sisu\\_manifest.html](http://www.jus.uio.no/sisu/sisu_manual/eu_contract_principles_parts_1_to_3_2002/sisu_manifest.html)>

pdf, landscape

pdf, portrait

open document

xhtml scroll

xml, sax

xml, dom

plain text utf-8

concordance

dcc, document content certificate (digests)

markup source text

zipped markup source pod

## 21.3 SQL - PostgreSQL, SQLite

A Sample search form is available at <http://search.sisudoc.org>

A few canned searches, showing object numbers. Search for:

English documents matching Linux OR Debian

GPL OR Richard Stallman

invention OR innovation in English language

copyright in English language documents

Note that the searches done in this form are case sensitive.

Expand those same searches, showing the matching text in each document:

English documents matching Linux OR Debian

GPL OR Richard Stallman

invention OR innovation in English language

copyright in English language documents

Note you may set results either for documents matched and object number locations within each matched document meeting the search criteria; or display the names of the documents matched along with the objects (paragraphs) that meet the search criteria.<sup>54</sup>

## 21.4 Lex Mercatoria as an example

There is quite a bit to peruse if you explore the site Lex Mercatoria:

<http://www.lexmercatoria.org/> <sup>55</sup>

or perhaps:

<http://lexmercatoria.org/treaties.and.organisations/lm.chronological> <sup>56</sup>

## 21.5 For good measure the markup for a document with lots of (simple) tables

SiSU is not optimised for table making, but does handle simple tables.

- SiSU marked up file with tables <sup>57</sup>

- Output of table file example <sup>58</sup>

<sup>54</sup> of this feature when demonstrated to an IBM software innovations evaluator in 2004 he said to paraphrase: this could be of interest to us. We have large document management systems, you can search hundreds of thousands of documents and we can tell you which documents meet your search criteria, but there is no way we can tell you without opening each document where within each your matches are found.

<sup>55</sup> <http://www.jus.uio.no/lm/index>

<sup>56</sup> <http://www.jus.uio.no/lm/treaties.and.organisations/lm.chronological>

<sup>57</sup> [http://www.jus.uio.no/sisu/sample/syntax/un\\_conventions\\_membership\\_status.sst.html](http://www.jus.uio.no/sisu/sample/syntax/un_conventions_membership_status.sst.html)

[http://www.jus.uio.no/sisu/sample/markup/un\\_conventions\\_membership\\_status.sst](http://www.jus.uio.no/sisu/sample/markup/un_conventions_membership_status.sst)

<sup>58</sup> [http://www.jus.uio.no/lm/un\\_conventions\\_membership\\_status/toc.html](http://www.jus.uio.no/lm/un_conventions_membership_status/toc.html)

989 21.6 And a link to the output of a reported case

990 <<http://www.jus.uio.no/lm/england.fothergill.v.monarch.airlines.hl.1980/toc.html>>

22. A Checklist of Output Features

991

This table gives an indication of the features that are available for various forms of output of SiSU .<sup>59</sup>

992

993

feature	txt	ltx/pdf	HTML	XHTML	XML/s	XML/d	ODF	SQLite	pgSQL
headings	*	*	*	*	*	*	*	*	*
footnotes	*	*	*	*	*	*	*	*	*
bold, underscore, italics	.	*	*	*	*	*	*	*	*
strikethrough	.	*	*	*	*	*	*		
superscript, subscript	.	*	*	*	*	*	*		
extended ascii set (utf-8)	*	*	*	*	*	*	*		*
indents	*	*	*	*	*	*	*		
bullets	.	*	*	*	*	*	.		
groups									
* tables		*	*	.	.	.	.	.	.
* poem	*	*	*	.	.	.	*	.	.
* code	*	*	*	.	.	.	*	.	.
url	*	*	*	*	*	*	*	.	.
links	*	*	*	*	*	*	*	.	.
images	-	*	*	T	T	T	*	T	T
image caption	-	*	*						
table of contents		*	*	*	*	*	.		
page header/footer?	-	*	*	*	*	*	t		
line break	*		*	*	*	*	*		
page break		*					*		
segments			*						
skins	*	*	*	*	*	*			
ocn	.	*	*	*	*	*	~?	*	*
auto-heading numbers	*	*	*	*	*	*	*	*	*
minor list numbering	*	*	*	*	*	*	*	*	*
special characters	.	.	.						

994

Done

\* yes/done

. partial

- not available/appropriate

Not Done

<sup>59</sup> updated for sisu-0.36.6 on 2006-01-23

T task todo  
t lesser task/todo  
not done

<b>23. SiSU Search - Introduction</b>	995
SiSU output can easily and conveniently be indexed by a number of standalone indexing tools, such as Lucene, Hyperestraier.	996
Because the document structure of sites created is clearly defined, and the text object citation system is available hypothetically at least, for all forms of output, it is possible to search the sql database, and either read results from that database, or just as simply map the results to the html output, which has richer text markup.	997
In addition to this SiSU has the ability to populate a relational sql type database with documents at an object level, with objects numbers that are shared across different output types, which make them searchable with that degree of granularity. Basically, your match criteria is met by these documents and at these locations within each document, which can be viewed within the database directly or in various output formats.	998

## 24. SQL

### 24.1 populating SQL type databases

SiSU feeds sisu markupd documents into sql type databases PostgreSQL<sup>60</sup> and/or SQLite<sup>61</sup> database together with information related to document structure.

This is one of the more interesting output forms, as all the structural data of the documents are retained (though can be ignored by the user of the database should they so choose). All site texts/documents are (currently) streamed to four tables:

- one containing semantic (and other) headers, including, title, author, subject, (the Dublin Core...);
- another the substantive texts by individual “paragraph” (or object) - along with structural information, each paragraph being identifiable by its paragraph number (if it has one which almost all of them do), and the substantive text of each paragraph quite naturally being searchable (both in formatted and clean text versions for searching); and
- a third containing endnotes cross-referenced back to the paragraph from which they are referenced (both in formatted and clean text versions for searching).
- a fourth table with a one to one relation with the headers table contains full text versions of output, eg. pdf, html, xml, and ascii.

There is of course the possibility to add further structures.

At this level SiSU loads a relational database with documents chunked

<sup>60</sup> <<http://www.postgresql.org/>>  
 <<http://advocacy.postgresql.org/>>  
 <<http://en.wikipedia.org/wiki/Postgresql>>

<sup>61</sup> <<http://www.hwaci.com/sw/sqlite/>>  
 <<http://en.wikipedia.org/wiki/Sqlite>>

into objects, their smallest logical structurally constituent parts, as text objects, with their object citation number and all other structural information needed to construct the document. Text is stored (at this text object level) with and without elementary markup tagging, the stripped version being so as to facilitate ease of searching.

Being able to search a relational database at an object level with the SiSU citation system is an effective way of locating content generated by SiSU. As individual text objects of a document stored (and indexed) together with object numbers, and all versions of the document have the same numbering, complex searches can be tailored to return just the locations of the search results relevant for all available output formats, with live links to the precise locations in the database or in html/xml documents; or, the structural information provided makes it possible to search the full contents of the database and have headings in which search content appears, or to search only headings etc. (as the Dublin Core is incorporated it is easy to make use of that as well).

1010	<b>25. Postgresql</b>	initial step, creates required relations (tables, indexes) in existing (postgresql) database (a database should be created manually and given the same name as working directory, as requested) (rb.dbi)	
1011	<b>25.1 Name</b>		
1012	<b>SiSU</b> - Structured information, Serialized Units - a document publishing system, postgresql dependency package		
1013	<b>25.2 Description</b>	<b>sisu -D --createdb</b> 1023 creates database where no database existed before	
1014	Information related to using postgresql with sisu (and related to the sisu_postgresql dependency package, which is a dummy package to install dependencies needed for <b>SiSU</b> to populate a postgresql database, this being part of <b>SiSU</b> - man sisu).	<b>sisu -D --create</b> 1024 creates database tables where no database tables existed before	
1015	<b>25.3 Synopsis</b>	<b>sisu -D --Dropall</b> 1025 destroys database (including all its content)! kills data and drops tables, indexes and database associated with a given directory (and directories of the same name).	
1016	sisu -D [instruction] [filename/wildcard if required]	<b>sisu -D --recreate</b> 1026 destroys existing database and builds a new empty database structure	
1017	sisu -D -pg -[instruction] [filename/wildcard if required]		
1018	<b>25.4 Commands</b>	<b>25.4.2 import and remove documents</b> 1027	
1019	Mappings to two databases are provided by default, postgresql and sqlite, the same commands are used within sisu to construct and populate databases however -d (lowercase) denotes sqlite and -D (uppercase) denotes postgresql, alternatively -sqlite or -pgsql may be used	<b>sisu -D --import -v [filename/wildcard]</b> 1028 populates database with the contents of the file. Imports documents(s) specified to a postgresql database (at an object level).	
1020	<b>-D</b> or <b>-pgsql</b> may be used interchangeably.	<b>sisu -D --update -v [filename/wildcard]</b> 1029 updates file contents in database	
1021	<b>25.4.1 create and destroy database</b>	<b>sisu -D --remove -v [filename/wildcard]</b> 1030 removes specified document from postgresql database.	
1022	<b>-pgsql --createall</b>		

1031	<b>26. Sqlite</b>	database (a database should be created manually and given the same name as working directory, as requested) (rb.dbi)	
1032	<b>26.1 Name</b>	<b>sisu -d --createdb</b>	1044
1033	<b>SiSU</b> - Structured information, Serialized Units - a document publishing system.	creates database where no database existed before	
		<b>sisu -d --create</b>	1045
		creates database tables where no database tables existed before	
1034	<b>26.2 Description</b>	<b>sisu -d --dropall</b>	1046
1035	Information related to using sqlite with sisu (and related to the sisu_sqlite dependency package, which is a dummy package to install dependencies needed for <b>SiSU</b> to populate an sqlite database, this being part of <b>SiSU</b> - man sisu).	destroys database (including all its content)! kills data and drops tables, indexes and database associated with a given directory (and directories of the same name).	
		<b>sisu -d --recreate</b>	1047
		destroys existing database and builds a new empty database structure	
1036	<b>26.3 Synopsis</b>		
1037	sisu -d [instruction] [filename/wildcard if required]		
1038	sisu -d -(sqlite pg) -[instruction] [filename/wildcard if required]		
1039	<b>26.4 Commands</b>	<b>26.4.2 import and remove documents</b>	1048
1040	Mappings to two databases are provided by default, postgresql and sqlite, the same commands are used within sisu to construct and populate databases however -d (lowercase) denotes sqlite and -D (uppercase) denotes postgresql, alternatively --sqlite or --pgsql may be used	<b>sisu -d --import -v [filename/wildcard]</b>	1049
		populates database with the contents of the file. Imports documents(s) specified to an sqlite database (at an object level).	
		<b>sisu -d --update -v [filename/wildcard]</b>	1050
		updates file contents in database	
		<b>sisu -d --remove -v [filename/wildcard]</b>	1051
		removes specified document from sqlite database.	
1041	<b>-d or --sqlite</b> may be used interchangeably.		
1042	<b>26.4.1 create and destroy database</b>		
1043	<b>--sqlite --createall</b>		
	initial step, creates required relations (tables, indexes) in existing (sqlite)		

## 27. Introduction

### 27.1 Search - database frontend sample, utilising database and SiSU features, including object citation numbering (backend currently PostgreSQL)

[Sample search frontend](#)<sup>62</sup> A small database and sample query front-end (search from) that makes use of the citation system, [object citation numbering](#) to demonstrates functionality.<sup>63</sup>

**SiSU** can provide information on which documents are matched and at what locations within each document the matches are found. These results are relevant across all outputs using object citation numbering, which includes html, XML, LaTeX, PDF and indeed the SQL database. You can then refer to one of the other outputs or in the SQL database expand the text within the matched objects (paragraphs) in the documents matched.

Note you may set results either for documents matched and object number locations within each matched document meeting the search criteria; or display the names of the documents matched along with the objects (paragraphs) that meet the search criteria.<sup>64</sup>

#### **sisu -F -webserv-webrick**

builds a cgi web search frontend for the database created

The following is feedback on the setup on a machine provided by the help command:

<sup>62</sup> <<http://search.sisudoc.org>>

<sup>63</sup> (which could be extended further with current back-end). As regards scaling of the database, it is as scalable as the database (here PostgreSQL) and hardware allow.

<sup>64</sup> of this feature when demonstrated to an IBM software innovations evaluator in 2004 he said to paraphrase: this could be of interest to us. We have large document management systems, you can search hundreds of thousands of documents and we can tell you which documents meet your search criteria, but there is no way we can tell you without opening each document where within each your matches are found.

#### **sisu -help sql**

Postgresql

user: ralph

current db set: SiSU\_sisu

port: 5432

dbi connect: DBI:Pg:database=SiSU\_sisu;port=5432

sqlite

current db set: /home/ralph/sisu\_www/sisu/sisu\_sqlite.db

dbi connect DBI:SQLite:/home/ralph/sisu\_www/sisu/sisu\_sqlite.db

#### **Note on databases built**

By default, [unless otherwise specified] databases are built on a directory basis, from collections of documents within that directory. The name of the directory you choose to work from is used as the database name, i.e. if you are working in a directory called /home/ralph/ebook the database SiSU\_ebook is used. [otherwise a manual mapping for the collection is necessary]

### 27.2 Search Form

#### **sisu -F**

generates a sample search form, which must be copied to the web-server cgi directory

#### **sisu -F -webserv-webrick**

generates a sample search form for use with the webrick server, which must be copied to the web-server cgi directory

#### **sisu -Fv**

as above, and provides some information on setting up hyperestraier

#### **sisu -W**

starts the webrick server which should be available wherever sisu is properly installed

The generated search form must be copied manually to the webserver directory as instructed



## 28. Hyperestraier

See the documentation for hyperestraier:

`<http://hyperestraier.sourceforge.net/>`

`/usr/share/doc/hyperestraier/index.html`

`man estcmd`

on `sisu_hyperestraier`:

`man sisu_hyperestraier`

`/usr/share/doc/sisu/sisu_markup/sisu_hyperestraier/index.html`

NOTE: the examples that follow assume that `sisu` output is placed in the directory `/home/ralph/sisu_www`

(A) to generate the index within the webserver directory to be indexed:

`estcmd gather -sd [index name] [directory path to index]`

the following are examples that will need to be tailored according to your needs:

`cd /home/ralph/sisu_www`

`estcmd gather -sd casket /home/ralph/sisu_www`

you may use the ‘`find`’ command together with ‘`egrep`’ to limit indexing to particular document collection directories within the web server directory:

`find /home/ralph/sisu_www -type f | egrep '/home/ralph/sisu_www/sisu/.+?.html$'`  
`| estcmd gather -sd casket -`

Check which directories in the webserver/output directory (`~/sisu_www` or elsewhere depending on configuration) you wish to include in the search index.

As `sisu` duplicates output in multiple file formats, it is probably prefer-

able to limit the `estraier` index to `html` output, and as it may also be desirable to exclude files ‘`plain.txt`’, ‘`toc.html`’ and ‘`concordance.html`’, as these duplicate information held in other `html` output e.g.

`find /home/ralph/sisu_www -type f | egrep '/sisu_www/(sisu|bookmarks)/.+?.html$'`  
`| egrep -v '(doc|concordance).html$' | estcmd gather -sd casket -`

from your current document preparation/markup directory, you would construct a rune along the following lines:

`find /home/ralph/sisu_www -type f | egrep '/home/ralph/sisu_www/([specify first directory for inclusion]|[specify second directory for inclusion]|[another directory for inclusion? ...])/.+?.html$'`  
`| egrep -v '(doc|concordance).html$' | estcmd gather -sd /home/ralph/sisu_www/casket -`

(B) to set up the search form

(i) copy `estseek.cgi` to your `cgi` directory and set file permissions to 755:

`sudo cp -vi /usr/lib/estraier/estseek.cgi /usr/lib/cgi-bin`

`sudo chmod -v 755 /usr/lib/cgi-bin/estseek.cgi`

`sudo cp -v /usr/share/hyperestraier/estseek.* /usr/lib/cgi-bin`

[see `estraier` documentation for paths]

(ii) edit `estseek.conf`, with attention to the lines starting ‘`indexname:`’ and ‘`replace:`’:

`indexname: /home/ralph/sisu_www/casket`

`replace: file : ///home/ralph/sisu_www{!}`

`replace: /index.html?${!}}`

(C) to test using `webrick`, start `webrick`:

`sisu -W`

and try open the url: `<http://localhost:8081/cgi-bin/estseek.cgi>`

1103	<b>29. sisu_webrick</b>	1116	<b>29.5 Document processing command flags</b>	
1104	<b>29.1 Name</b>		sisu -W [port] starts <b>Ruby</b> Webrick web-server, serving <b>SiSU</b> output directories, on the port provided, or if no port is provided and the defaults have not been changed in <code>~/.sisu/sisurc.yaml</code> then on port 8081	1117
1105	<b>SiSU</b> - Structured information, Serialized Units - a document publishing system			
1106	<b>29.2 Synopsis</b>		<b>29.6 Further information</b>	1118
1107	sisu_webrick [port]		For more information on <b>SiSU</b> see: <a href="http://www.jus.uio.no/sisu">&lt;http://www.jus.uio.no/sisu&gt;</a>	1119
1108	or		or <code>man sisu</code>	1120
1109	sisu -W [port]		<b>29.7 Author</b>	1121
1110	<b>29.3 Description</b>		Ralph Amissah <code>ralph@amissah.com</code> or <code>ralph.amissah@gmail.com</code>	1122
1111	sisu_webrick is part of <b>SiSU</b> ( <code>man sisu</code> ) sisu_webrick starts <b>Ruby</b> 's Webrick web-server and points it to the directories to which <b>SiSU</b> output is written, providing a list of these directories (assuming <b>SiSU</b> is in use and they exist).		<b>29.8 SEE ALSO</b>	1123
1112	The default port for sisu_webrick is set to 8081, this may be modified in the yaml file: <code>~/.sisu/sisurc.yaml</code> a sample of which is provided as <code>/etc/sisu/sisurc.yaml</code> (or in the equivalent directory on your system).		sisu(1)	1124
1113	<b>29.4 Summary of man page</b>		sisu_vim(7)	1125
1114	sisu_webrick, may be started on it's own with the command: <code>sisu_webrick [port]</code> or using the sisu command with the -W flag: <code>sisu -W [port]</code>		sisu(8)	1126
1115	where no port is given and settings are unchanged the default port is 8081			

### 30. Remote Source Documents

SiSU processing instructions can be run against remote source documents by providing the url of the documents against which the processing instructions are to be carried out. The remote SiSU documents can either be sisu marked up files in plaintext .sst or .ssm or; zipped sisu files, sisupod.zip or filename.ssp

#### .sst / .ssm - sisu text files

SiSU can be run against source text files on a remote machine, provide the processing instruction and the url. The source file and any associated parts (such as images) will be downloaded and generated locally.

```
sisu -3 http://[provide url to valid .sst or .ssm file]
```

Any of the source documents in the sisu examples page can be used in this way, see <<http://www.jus.uio.no/sisu/SiSU/2.html>> and use the url for the desired document.

NOTE: to set up a remote machine to serve SiSU documents in this way, images should be in the directory relative to the document source `../_sisu/image`

#### sisupod - zipped sisu files

A sisupod is the zipped content of a sisu marked up text or texts and any other associated parts to the document such as images.

SiSU can be run against a sisupod on a (local or) remote machine, provide the processing instruction and the url, the sisupod will be downloaded and the documents it contains generated locally.

```
sisu -3 http://[provide url to valid sisupod.zip or .ssp file]
```

Any of the source documents in the sisu examples page can be used in this way, see <<http://www.jus.uio.no/sisu/SiSU/2.html>> and use the url for the desired document.

## REMOTE DOCUMENT OUTPUT

### 31. Remote Output

1140

Once properly configured **SiSU** output can be automatically posted once generated to a designated remote machine using either rsync, or scp. 1141

In order to do this some ssh authentication agent and keychain or similar tool will need to be configured. Once that is done the placement on a remote host can be done seamlessly with the -r (for scp) or -R (for rsync) flag, which may be used in conjunction with other processing flags, e.g. 1142

```
sisu -3R sisu_remote.sst
```

1143

#### 31.1 commands

1144

##### **-R [filename/wildcard]**

1145

copies sisu output files to remote host using rsync. This requires that sisurc.yml has been provided with information on hostname and username, and that you have your “keys” and ssh agent in place. Note the behavior of rsync different if -R is used with other flags from if used alone. Alone the rsync –delete parameter is sent, useful for cleaning the remote directory (when -R is used together with other flags, it is not). Also see -r

##### **-r [filename/wildcard]**

1146

copies sisu output files to remote host using scp. This requires that sisurc.yml has been provided with information on hostname and username, and that you have your “keys” and ssh agent in place. Also see -R

#### 31.2 configuration

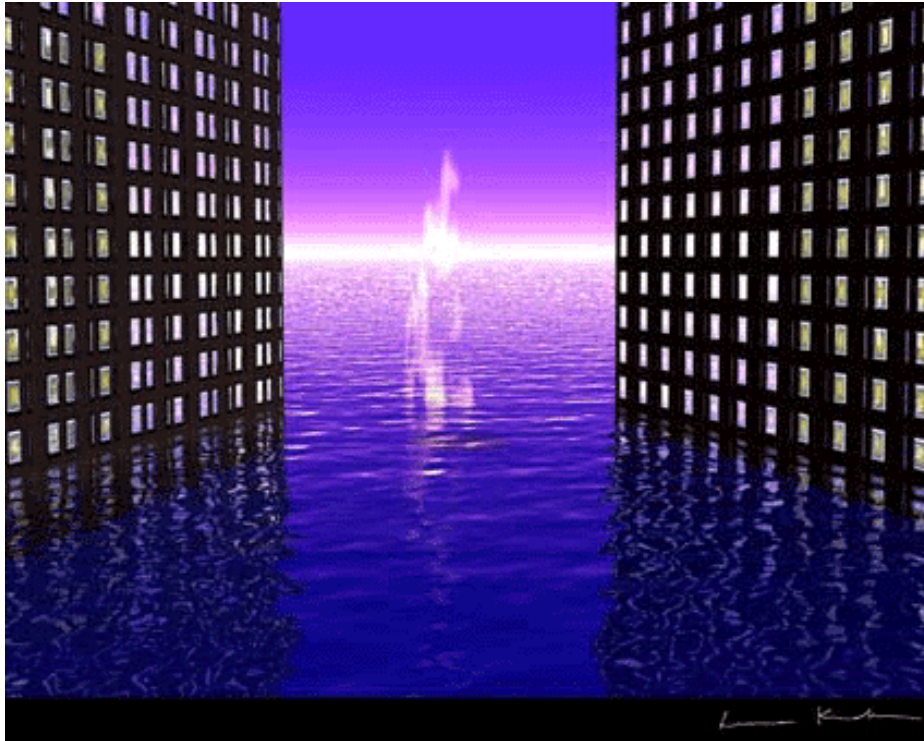
1147

[expand on the setting up of an ssh-agent / keychain]

1148

1149	<b>32. Remote Servers</b>		
1150	As <b>SiSU</b> is generally operated using the command line, and works within a Unix type environment, <b>SiSU</b> the program and all documents can just as easily be on a remote server, to which you are logged on using a terminal, and commands and operations would be pretty much the same as they would be on your local machine.		
	<b>33. Download SiSU - Linux/Unix</b>		1151
	<b>SiSU Current Version - Linux/Unix</b>		1152
	<b>Source (tarball tar.gz)</b>		1153
	Download the latest version of <b>SiSU</b> (and <b>SiSU</b> markup samples): <sup>65</sup>		1154
	• <a href="#">sisu_0.58.3.orig.tar.gz</a> (of 2007-09-05:36/3) <sup>66</sup>		1155
	cgi generated sample search form		1156
	order results on files of the same title, in multiple files (with different filenames)		1157
	postgresql, character case sensitivity, control, on/off		1158
	tail decoration, gplv3 and sisu info		1159
	texinfo/info (pinfo) module starts to do something vaguely useful again [not a much used module, testing required]		1160
	print XML rendition of document structure to screen -T		1161
	help on environment visited, sisu -V		1162
	sisurc.yml default, color set to true [apologies if this causes anyone any inconvenience, it is configurable in sisurc.yml]		1163
	help and man pages, some work man(8) related		1164
	sisu-install (install ruby rant script renamed) and permissions set to executable		1165
	• <a href="#">sisu-markup-samples_1.0.8.orig.tar.gz</a> (of 2007-08-19:33/7 ) <sup>67</sup>		1166
	For installation notes see < <a href="http://www.jus.uio.no/sisu/SiSU/download.html">http://www.jus.uio.no/sisu/SiSU/download.html</a> >		1167

For changelogs see <<http://www.jus.uio.no/sisu/SiSU/changelog.html>>



Tulva, by Leena Krohn<sup>68</sup>

#### <sup>65</sup> Breakage and Fixes Report

<[http://www.jus.uio.no/sisu/SiSU/breakage\\_and\\_fixes.html](http://www.jus.uio.no/sisu/SiSU/breakage_and_fixes.html)>

<sup>66</sup> <[http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu\\_0.58.3.orig.tar.gz](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu_0.58.3.orig.tar.gz)>  
e9a20a06ffee8d633b8ce525017d89ba 1278987

<sup>67</sup> <[http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples\\_1.0.7.orig.tar.gz](http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples_1.0.7.orig.tar.gz)>

04ae2812617a4689666600a0fb32301f 3438571

<sup>68</sup> Reproduced with the kind permission of author and artist Leena Krohn, <<http://www.kaapeli.fi/krohn>> Tulva is from the work Sphinx or Robot <[http://www.jus.uio.no/sisu/sphinx\\_or\\_robot.leena\\_krohn.1996](http://www.jus.uio.no/sisu/sphinx_or_robot.leena_krohn.1996)> other works available online include Tainaron <[http://www.jus.uio.no/sisu/tainaron.leena\\_krohn.1998](http://www.jus.uio.no/sisu/tainaron.leena_krohn.1998)>, these two works can be found in the book sample section <http://www.jus.uio.no/sisu/SiSU/2.html#sample>

1168

## Git (source control management)

1170

Git repository currently at:

1171

- [git clone git://sisudoc.org/git/sisu/](git://sisudoc.org/git/sisu/)

1172

- <<http://search.sisudoc.org/cgi-bin/gitweb.cgi?p=sisu;a=summary>>

1173

## Debian

1174

This section contains information on the latest **SiSU** release. For installation notes see <[http://www.jus.uio.no/sisu/sisu\\_download/installation.html](http://www.jus.uio.no/sisu/sisu_download/installation.html)>

1175

**SiSU** is updated fairly regularly in **Debian** testing and unstable, and should be available therefrom.

1176

To add this archive, should you still choose to do so, add the following lines to your /etc/apt/sources.list

1177

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

1178

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

## Source

1179

- [sisu\\_0.58.3.orig.tar.gz](#)<sup>69</sup>

1180

- [sisu\\_0.58.3-1.diff.gz](#)<sup>70</sup>

1181

- [sisu\\_0.58.3-1.dsc](#)<sup>71</sup>

1182

## Debs

1183

- [sisu\\_0.58.3-1\\_all.deb](#)<sup>72</sup>

1184

- [sisu-complete\\_0.58.3-1\\_all.deb](#)<sup>73</sup>

1185

<sup>69</sup> <[http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu\\_0.58.3.orig.tar.gz](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu_0.58.3.orig.tar.gz)>

<sup>70</sup> <[http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu\\_0.58.3-1.diff.gz](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu_0.58.3-1.diff.gz)>

<sup>71</sup> <[http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu\\_0.58.3-1.dsc](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu_0.58.3-1.dsc)>  
b8330f8b97a15e6eacba8f2616acb10 606 sisu\_0.58.3-1.dsc

<sup>72</sup> <[http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu\\_0.58.3-1\\_all.deb](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu_0.58.3-1_all.deb)>

sisu, the base code, (the main package on which the others depend), without any

- [sisu-pdf\\_0.58.3-1\\_all.deb](#)<sup>74</sup>

- [sisu-postgresql\\_0.58.3-1\\_all.deb](#)<sup>75</sup>

- [sisu-sqlite\\_0.58.3-1\\_all.deb](#)<sup>76</sup>

For changelogs see:

[<http://www.jus.uio.no/sisu/SiSU/changelog.html>](http://www.jus.uio.no/sisu/SiSU/changelog.html)

[<http://www.jus.uio.no/sisu/sisu\\_changelog/changelog.html>](http://www.jus.uio.no/sisu/sisu_changelog/changelog.html)

## non-free

Book markup samples have been moved to non-free as the substantive text of the documents are available under the author or original publisher's

dependencies other than ruby (and for convenience the ruby webrick web server), this generates a number of types of output on its own, other packages provide additional functionality, and have their dependencies

Depends: ruby (≥1.8.2), libwebrick-ruby

Recommends: sisu-pdf, sisu-sqlite, sisu-postgresql, sisu-examples, vim-sisu, librmagick-ruby, trang, tidy, libtidy, libxml-ruby, zip, unzip, openssl

<sup>73</sup> [<http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-complete\\_0.58.3-1\\_all.deb>](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-complete_0.58.3-1_all.deb)

a package that pulls in other packages to build the whole of sisu (excluding sisu-examples)

Depends: ruby (≥1.8.2), sisu, sisu-pdf, sisu-postgresql, sisu-remote, sisu-sqlite, vim-sisu

Recommends: sisu-examples

<sup>74</sup> [<http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-pdf\\_0.58.3-1\\_all.deb>](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-pdf_0.58.3-1_all.deb)

dependencies used by sisu to produce pdf from LaTeX generated

Depends: sisu, tetex-bin, tetex-extra, latex-ucs

Suggests: evince, xpdf

<sup>75</sup> [<http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-postgresql\\_0.58.3-1\\_all.deb>](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-postgresql_0.58.3-1_all.deb)

dependencies used by sisu to populate postgresql database (further configuration is necessary)

Depends: sisu, postgresql-8.1, libdbi-ruby, libdbm-ruby, libdbd-pg-ruby

Suggests: pgaccess, libdbd-pgsql, postgresql-contrib-8.1

<sup>76</sup> [<http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-sqlite\\_0.58.3-1\\_all.deb>](http://www.jus.uio.no/sisu/archive/pool/main/s/sisu/sisu-sqlite_0.58.3-1_all.deb)

dependencies used by sisu to populate sqlite database

Depends: sisu, sqlite, libdbi-ruby, libdbm-ruby, libdbd-sqlite-ruby

Suggests: libdbd-sqlite

license, and usually do not comply with the **Debian** Free Software Guidelines.

- [sisu-markup-samples\\_1.0.8-1\\_all.deb](#)<sup>77</sup>

- [sisu-markup-samples\\_1.0.8-1.dsc](#)<sup>78</sup>

For changelogs see:

[<http://www.jus.uio.no/sisu/SiSU/changelog\\_markup\\_samples.html>](http://www.jus.uio.no/sisu/SiSU/changelog_markup_samples.html)

[<http://www.jus.uio.no/sisu/sisu\\_markup\\_samples\\_changelog/changelog\\_markup\\_samples.html>](http://www.jus.uio.no/sisu/sisu_markup_samples_changelog/changelog_markup_samples.html)

## RPM

The RPM is generated from the source file using Alien.<sup>79</sup> Dependencies are not handled, not even that of the essential **Ruby**.

- [sisu\\_0.58.3.orig-1-2.noarch.rpm](#)<sup>80</sup>

- [sisu-0.58.3-2.noarch.rpm](#)<sup>81</sup>

- [sisu-markup-samples\\_1.0.8.orig-2.noarch.rpm](#)<sup>82</sup>

<sup>77</sup> [<http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples\\_1.0.8-1\\_all.deb>](http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples_1.0.8-1_all.deb)

marked up documents and other examples related to sisu, a larger package containing a number of texts

Depends: sisu

<sup>78</sup> [<http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples\\_1.0.8-1.dsc>](http://www.jus.uio.no/sisu/archive/pool/non-free/s/sisu-markup-samples/sisu-markup-samples_1.0.8-1.dsc)

ca03c11467097d6049c43c54d0961ef5 606 sisu-markup-samples\_1.0.8-1.dsc

<sup>79</sup> [<http://www.kitenet.net/programs/alien/>](http://www.kitenet.net/programs/alien/)

<sup>80</sup> [<http://www.jus.uio.no/sisu/pkg/rpm/sisu\\_0.58.3.orig-1-2.noarch.rpm>](http://www.jus.uio.no/sisu/pkg/rpm/sisu_0.58.3.orig-1-2.noarch.rpm)

31f5cd3e0e577b418e7c98492f71f0af

untested, created using: alien -r sisu\_0.58.3.orig.tar.gz

<sup>81</sup> [<http://www.jus.uio.no/sisu/pkg/rpm/sisu-0.58.3-2.noarch.rpm>](http://www.jus.uio.no/sisu/pkg/rpm/sisu-0.58.3-2.noarch.rpm)

8b6858f0117351ce441e8559bf5308be

untested, created using: alien -r sisu\_0.58.3-1\_all.deb

1204

`sudo rpm -i [package name]`

---

<sup>82</sup> <[http://www.jus.uio.no/sisu/pkg/rpm/sisu-markup-samples\\_1.0.6.orig-2.noarch.rpm](http://www.jus.uio.no/sisu/pkg/rpm/sisu-markup-samples_1.0.6.orig-2.noarch.rpm)>  
15eed830b4d004f011baf831bb816da  
untested, created using alien



## INSTALLATION

### 34. Installation

See the [download pages](#)<sup>83</sup> for information related to installation.

#### 34.1 Debian

**SiSU** is developed on **Debian**, and packages are available for **Debian** that take care of the dependencies encountered on installation.

The package is divided into the following components:

**sisu**, the base code, (the main package on which the others depend), without any dependencies other than ruby (and for convenience the ruby webrick web server), this generates a number of types of output on its own, other packages provide additional functionality, and have their dependencies

**sisu-complete**, a dummy package that installs the whole of greater sisu as described below, apart from sisu-examples

**sisu-pdf**, dependencies used by sisu to produce pdf from LaTeX generated

**sisu-postgresql**, dependencies used by sisu to populate postgresql database (further configuration is necessary)

**sisu-remote**, dependencies used to place sisu output on a remote server (further configuration is necessary)

**sisu-sqlite**, dependencies used by sisu to populate sqlite database

**sisu-markup-samples**, sisu markup samples and other miscellany (under **Debian** Free Software Guidelines non-free)

**SiSU** is available off [Debian Unstable and Testing](#)<sup>84</sup> install it using apt-

<sup>83</sup> [<http://www.jus.uio.no/sisu/SiSU/download>](http://www.jus.uio.no/sisu/SiSU/download)  
[<http://www.jus.uio.no/sisu/sisu\\_download>](http://www.jus.uio.no/sisu/sisu_download)

get, aptitude or alternative **Debian** install tools. **SiSU** is currently comprised of eight packages.

Initial packaging is done here and to get the latest version of **SiSU** available you may add the following line(s) to your sources list:

```
#/etc/apt/sources.list
deb http://www.jus.uio.no/sisu/archive unstable main non-free
deb-src http://www.jus.uio.no/sisu/archive unstable main non-free
```

The non-free section is for sisu markup samples provided, which contain authored works the substantive text of which cannot be changed, and which as a result do not meet the debian free software guidelines.

On **Debian** there is little more to know beyond how to install software on **Debian** using apt, aptitude or synaptic.

```
#Using aptitude:
aptitude update
aptitude install sisu-complete sisu-markup-samples

Using apt-get
apt-get update
apt-get install sisu-complete sisu-examples
```

## 34.2 Other Unix / Linux

A source tarball or an rpms built using alien are available, (however dependencies have not been tested). **SiSU** is first packaged and tested with dependency handling for **Debian**.<sup>85</sup> Information on dependencies configured for **Debian** is provided as this may be of assistance.

### 34.2.1 source tarball

#### installation with provided install script

To install **SiSU**, in the root directory of the unpacked **SiSU** as root

<sup>84</sup> <<http://packages.qa.debian.org/s/sisu.html>>

<sup>85</sup> Notes on dependencies are provided in the section that follows

type:<sup>86</sup>

ruby install

Once installed see man 8 sisu for information on additional programs that sisu makes use of.

Further notes on install script.

The install script is prepared using Rant, and a Rantfile is provided,<sup>87</sup> with more comprehensive install options, and post install and setup configuration and generation of first test file, if you have installed Stefan Lang's **Rant**<sup>88</sup> installed. While in the package directory, type: rant help, or rant -T, or to install **SiSU** as root, type:

**install** is an install script prepared using Stefan Lang's **Rant**<sup>89</sup> It should work whether you have previously installed Rant or not. It has fairly comprehensive install options, and can do some post install and setup configuration and generation of first test file. For options type:

ruby install -T

To install as root type:

ruby install

For a minimal install type:

ruby install base

#### installation with setup.rb

setup.rb<sup>90</sup> is provided the package and will install **SiSU**<sup>91</sup> installation

<sup>86</sup> This makes use of rant and the provided Rantfile. Note however, that additional external package dependencies, such as tetex-extra are not taken care of for you.

<sup>87</sup> a Rantfile has been configured to do post installation setup

<sup>88</sup> <<http://make.rubyforge.org/>> <<http://make.rubyforge.org/>>  
<[http://rubyforge.org/frs/?group\\_id=615](http://rubyforge.org/frs/?group_id=615)>

<sup>89</sup> <<http://make.rubyforge.org/>> <<http://make.rubyforge.org/>>  
<[http://rubyforge.org/frs/?group\\_id=615](http://rubyforge.org/frs/?group_id=615)>

is a 3 step process<sup>92</sup> the following string assumes you are in the package directory and that you have root as sudo:

```
ruby setup.rb config ruby setup.rb setup sudo ruby setup.rb install
```

### installation of rpm

The RPM is generated from the source file using Alien.<sup>93</sup> Dependencies are not handled, not even that of the essential **Ruby** .

## 35. SiSU Components, Dependencies and Notes

The dependency lists are from the **Debian** control file for **SiSU** version 0.36, and may assist in building **SiSU** on other distributions.

### 35.1 sisu

- the base code, (the main package on which the others depend), without any dependencies other than ruby (and for convenience the ruby webrick web server), this generates a number of types of output on its own, other packages provide additional functionality, and have their dependencies

**Depends:** on ruby (≥1.8.2), libwebrick-ruby

**Recommends:** sisu-pdf, sisu-sqlite, sisu-postgresql, sisu-examples, librmagick-ruby, trang, tidy, libtidy, librexml-ruby, zip, unzip, openssl

initialise directory

```
sisu -CC
```

html

```
sisu -hv [filename/wildcard]
```

```
sisu -Hv [filename/wildcard]
```

LaTeX (but sisu-pdf dependencies required to convert that to pdf)

```
sisu -pv [filename/wildcard]
```

plain text Unix with footnotes

```
sisu -av [filename/wildcard]
```

plain text Dos with footnotes

```
sisu -Av [filename/wildcard]
```

plain text Unix with endnotes

<sup>90</sup> <<http://i.loveruby.net/en/projects/setup/>>

<sup>91</sup> Minero Aoki

<<http://i.loveruby.net/en/projects/setup/doc/>>

<sup>92</sup> Installation instructions

<<http://i.loveruby.net/en/projects/setup/doc/usage.html>>

<sup>93</sup> <<http://www.kitenet.net/programs/alien/>>

1263	sisu -ev [filename/wildcard]	1286	sisu -Uv [filename/wildcard]	
1264	plain text Dos with endnotes		toggle screen colour	1287
1265	sisu -Ev [filename/wildcard]		sisu -cv[and processing flags] [filename/wildcard]	1288
1266	openoffice odt		verbose mode	1289
1267	sisu -ov [filename/wildcard]		sisu -v[and processing flags] [filename/wildcard]	1290
1268	xhtml		sisu -V[and processing flags] [filename/wildcard]	1291
1269	sisu -bv [filename/wildcard]		quiet mode	1292
1270	XML SAX		sisu -q[and processing flags] [filename/wildcard]	1293
1271	sisu -xv [filename/wildcard]		maintenance mode, intermediate files kept -M	1294
1272	XML DOM		sisu -Mv[and other flags] [filename/wildcard]	1295
1273	sisu -Xv [filename/wildcard]		[the -v is for verbose]	1296
1274	wordmap (a rudimentary index of content)		start the webrick server	1297
1275	sisu -wv [filename/wildcard]		sisu -W	1298
1276	document content certificate			
1277	sisu -Nv [filename/wildcard]			
1278	placement of sourcefile in output directory		<b>35.2 sisu-complete</b>	1299
1279	sisu -sv [filename/wildcard]		<ul style="list-style-type: none"> <li>a dummy package that installs the whole <b>SiSU</b> , apart from sisu-examples</li> </ul>	1300
1280	creation of source tarball with images, and placement of source tarball in ouput directory		<b>Depends:</b> ruby (≥1.8.2), sisu, sisu-pdf, sisu-postgresql, sisu-remote, sisu-sqlite	1301
1281	sisu -Sv [filename/wildcard]		<b>Recommends:</b> sisu-examples	1302
1282	manifest of output produced (polls output directory and provides links to existing output)			
1283	sisu -yv [filename/wildcard]		<b>35.3 sisu-examples</b>	1303
1284	url for output files -u -U		<ul style="list-style-type: none"> <li>installs sisu markup samples and other miscelleny</li> </ul>	1304
1285	sisu -uv[and other flags] [filename/wildcard]		<b>Depends:</b> sisu	1305

**35.4 sisu-pdf**

- dependencies used by sisu to produce pdf from LaTeX generated

**Depends:** sisu, tetex-bin, tetex-extra, latex-ucs

**Suggests:** evince, xpdf

converts sisu LaTeX produced to pdf

sisu -pv [filename/wildcard]

[the -v is for verbose]

**35.5 sisu-postgresql**

- dependencies used by sisu to populate postgresql database (further configuration is necessary)

**Depends:** sisu, postgresql-8.1, libdbi-ruby, libdbm-ruby, libdbd-pg-ruby

**Suggests:** pgaccess, libdbd-pgsql, postgresql-contrib-8.1

installs dependencies for sisu to work with and populate postgresql database

create database

sisu -Dv createall

drop database

sisu -Dv dropall

import content

sisu -Div [filename/wildcard]

sisu -Dv import [filename/wildcard]

update content

sisu -Duv [filename/wildcard]

sisu -Dv update [filename/wildcard]

[the -v is for verbose]

The following are available without installation of the sisu-postgresql component, but are of interest in this context

generate a sample database query form for use with webserver on port 80

sisu -F

or for use with webrick server

sisu -F webrick

to start webrick server

sisu -W

**35.6 sisu-remote**

- dependencies used to place sisu output on a remote server (further configuration is necessary)

scp

sisu -vr[and processing flags] [filename/wildcard]

rsync

sisu -vR[and processing flags] [filename/wildcard]

[the -v is for verbose]

**Depends:** sisu, rsync, openssh-client|lsh-client, keychain

**35.7 sisu-sqlite**

- dependencies used by sisu to populate sqlite database

**Depends:** sisu, sqlite, libdbi-ruby, libdbm-ruby, libdbd-sqlite-ruby

**Suggests:** libdbd-sqlite

installs dependencies for sisu to work with and populate sqlite database

create database

sisu -dv createall

drop database

sisu -dv dropall

update content

sisu -div [filename/wildcard]

sisu -dv import [filename/wildcard]

update content

sisu -duv [filename/wildcard]

sisu -dv update [filename/wildcard]

[the -v is for verbose]

The following are available without installation of the sisu-sqlite component, but are of interest in this context

generate a sample database query form for use with webserver on port 80

sisu -F

or for use with webrick server

sisu -F webrick

to start webrick server

sisu -W

## 36. Quickstart - Getting Started Howto

### 36.1 Installation

Installation is currently most straightforward and tested on the **Debian** platform, as there are packages for the installation of sisu and all requirements for what it does.

#### 36.1.1 Debian Installation

**SiSU** is available directly from the **Debian** Sid and testing archives (and possibly Ubuntu), assuming your /etc/apt/sources.list is set accordingly:

```
aptitude update
aptitude install sisu-complete
```

The following /etc/apt/sources.list setting permits the download of additional markup samples:

```
#/etc/apt/sources.list
deb http://ftp.fi.debian.org/debian/ unstable main non-free contrib
deb-src http://ftp.fi.debian.org/debian/ unstable main non-free contrib
d
```

The aptitude commands become:

```
aptitude update
aptitude install sisu-complete sisu-markup-samples
```

If there are newer versions of **SiSU** upstream of the **Debian** archives, they will be available by adding the following to your /etc/apt/sources.list

```
#/etc/apt/sources.list
deb http://www.jus.uio.no/sisu/archive unstable main non-free
deb-src http://www.jus.uio.no/sisu/archive unstable main non-free
```

repeat the aptitude commands

```
aptitude update
aptitude install sisu-complete sisu-markup-samples
```

Note however that it is not necessary to install sisu-complete if not all

components of sisu are to be used. Installing just the package sisu will provide basic functionality.

## setup.rb

This is a standard ruby installer, using setup.rb is a three step process. In the root directory of the unpacked **SiSU** as root type:

```
ruby setup.rb config
ruby setup.rb setup
#[and as root:]
ruby setup.rb install
```

further information on setup.rb is available from:

<<http://i.loveruby.net/en/projects/setup/>>

<<http://i.loveruby.net/en/projects/setup/doc/usage.html>>

## “install”

The “install” file provided is an installer prepared using “rant”. In the root directory of the unpacked **SiSU** as root type:

```
ruby install base
```

or for a more complete installation:

```
ruby install
```

or

```
ruby install base
```

This makes use of Rant (by Stefan Lang) and the provided Rantfile. It has been configured to do post installation setup setup configuration and generation of first test file. Note however, that additional external package dependencies, such as tetex-extra are not taken care of for you.

Further information on “rant” is available from:

<<http://make.rubyforge.org/>>

<[http://rubyforge.org/frs/?group\\_id=615](http://rubyforge.org/frs/?group_id=615)>

For a list of alternative actions you may type:

```
ruby install help
```

```
ruby install -T
```

### 36.1.2 RPM Installation

RPMs are provided though untested, they are prepared by running alien against the source package, and against the debs.

They may be downloaded from:

<http://www.jus.uio.no/sisu/SiSU/download.html#rpm>

as root type:

```
rpm -i [rpm package name]
```

### 36.1.3 Installation from source

To install **SiSU** from source check information at:

<http://www.jus.uio.no/sisu/SiSU/download.html#current>

- download the source package
- Unpack the source

Two alternative modes of installation from source are provided, setup.rb (by Minero Aoki) and a rant(by Stefan Lang) built install file, in either case: the first steps are the same, download and unpack the source file:

For basic use **SiSU** is only dependent on the programming language in which it is written **Ruby** , and **SiSU** will be able to generate html, various XMLs, including ODF (and will also produce LaTeX). Dependencies required for further actions, though it relies on the installation of additional dependencies which the source tarball does not take care of, for things like using a database (postgresql or sqlite)<sup>94</sup> or converting LaTeX to pdf.

<sup>94</sup> There is nothing to stop MySQL support being added in future.

## 36.2 Testing SiSU, generating output

To check which version of sisu is installed:

```
sisu -v
```

Depending on your mode of installation one or a number of markup sample files may be found either in the directory:

```
...
```

or

```
...
```

change directory to the appropriate one:

```
cd /usr/share/doc/sisu/sisu_markup_samples/dfsg
```

### 36.2.1 basic text, plaintext, html, XML, ODF

Having moved to the directory that contains the markup samples (see instructions above if necessary), choose a file and run sisu against it

```
sisu -NhwoabxXyv free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

this will generate html including a concordance file, opendocument text format, plaintext, XHTML and various forms of XML, and OpenDocument text

### 36.2.2 LaTeX / pdf

Assuming a LaTeX engine such as tetex or texlive is installed with the required modules (done automatically on selection of sisu-pdf in **Debian**)

Having moved to the directory that contains the markup samples (see instructions above if necessary), choose a file and run sisu against it

```
sisu -pv free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

```
sisu -3 free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

should generate most available output formats: html including a concordance file, opendocument text format, plaintext, XHTML and various forms of XML, and OpenDocument text and pdf

### 36.2.3 relational database - postgresql, sqlite

Relational databases need some setting up - you must have permission to create the database and write to it when you run sisu.

Assuming you have the database installed and the requisite permissions

```
sisu -sqlite -recreate
```

```
sisu -sqlite -v -import free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

```
sisu -pgsql -recreate
```

```
sisu -pgsql -v -import free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

## 36.3 Getting Help

### 36.3.1 The man pages

Type:

```
man sisu
```

The man pages are also available online, though not always kept as up to date as within the package itself:

- [sisu.1](http://www.jus.uio.no/sisu/man/sisu.1)<sup>95</sup>

- [sisu.8](http://www.jus.uio.no/sisu/man/sisu.8)<sup>96</sup>

- [man directory](http://www.jus.uio.no/sisu/man/sisu.8)<sup>97</sup>

<sup>95</sup> <<http://www.jus.uio.no/sisu/man/sisu.1>>

<sup>96</sup> <<http://www.jus.uio.no/sisu/man/sisu.8>>



### 36.3.2 Built in help

sisu -help

sisu -help -env

sisu -help -commands

sisu -help -markup

### 36.3.3 The home page

<<http://www.jus.uio.no/sisu>>

<<http://www.jus.uio.no/sisu/SiSU>>

## 36.4 Markup Samples

A number of markup samples (along with output) are available off:

<<http://www.jus.uio.no/sisu/SiSU/2.html>>

Additional markup samples are packaged separately in the file:

\*

On **Debian** they are available in non-free<sup>98</sup> to include them it is necessary to include non-free in your `/etc/apt/source.list` or obtain them from the sisu home site.

---

<sup>97</sup> <<http://www.jus.uio.no/sisu/man>>

<sup>98</sup> the **Debian** Free Software guidelines require that everything distributed within **Debian** can be changed - and the documents are authors' works that while freely distributable are not freely changeable.

## HowTo

### 37. Getting Help

An online manual of sorts should be available at:

[<http://www.jus.uio.no/sisu\\_manual/>](http://www.jus.uio.no/sisu_manual/)

The manual pages provided with **SiSU** are also available online, and there is an interactive help, which is being superseded by the man page, and possibly some document which contains this component.

#### 37.1 SiSU “man” pages

If **SiSU** is installed on your system usual man commands should be available, try:

man sisu

The **SiSU** man pages can be viewed online at:<sup>99</sup>

An online version of the sisu man page is available here:

- [various sisu man pages](#)<sup>100</sup>
- [sisu.1](#)<sup>101</sup>
- [sisu.8](#)<sup>102</sup>
- [sisu\\_examples.1](#)<sup>103</sup>
- [sisu\\_webrick.1](#)<sup>104</sup>

<sup>99</sup> generated from source using rman

[<http://polyglotman.sourceforge.net/rman.html>](http://polyglotman.sourceforge.net/rman.html)

With regard to **SiSU** man pages the formatting generated for markup syntax is not quite right, for that you might prefer the links under:

[<http://www.jus.uio.no/sample>](http://www.jus.uio.no/sample)

<sup>100</sup> [<http://www.jus.uio.no/sisu/man/>](http://www.jus.uio.no/sisu/man/)

<sup>101</sup> [<http://www.jus.uio.no/sisu/man/sisu.1.html>](http://www.jus.uio.no/sisu/man/sisu.1.html)

<sup>102</sup> [<http://www.jus.uio.no/sisu/man/sisu.8.html>](http://www.jus.uio.no/sisu/man/sisu.8.html)

<sup>103</sup> [<http://www.jus.uio.no/sisu/man/sisu\\_examples.1.html>](http://www.jus.uio.no/sisu/man/sisu_examples.1.html)

<sup>104</sup> [<http://www.jus.uio.no/sisu/man/sisu\\_webrick.1.html>](http://www.jus.uio.no/sisu/man/sisu_webrick.1.html)

## 37.2 SiSU built-in help

`sisu -help`

`sisu -help [subject]`

`sisu -help env` [for feedback on the way your system is setup with regard to sisu]

`sisu -V` [same as above command]

`sisu -help commands`

`sisu -help markup`

## 37.3 Command Line with Flags - Batch Processing

Running `sisu` (alone without any flags, filenames or wildcards) brings up the interactive help, as does any `sisu` command that is not recognised.

In the data directory run `sisu -mh filename` or wildcard eg. “`sisu -h cisg.sst`” or “`sisu -h *.{sst,ssm}`” to produce html version of all documents.

## 38. Setup, initialisation

### 38.1 initialise output directory

Images, css files for a document directory are copied to their respective locations in the output directory.

while within your document markup/preparation directory, issue the following command

`sisu -CC`

#### 38.1.1 Use of search functionality, an example using sqlite

**SiSU** can populate PostgreSQL and Sqlite databases and provides a sample search form for querying these databases.

This note provides an example to get you started and will use `sqlite`

It is necessary to:

- (1) make sure the required dependencies have been installed
- (2) have a directory with `sisu` markup samples that is writable
- (3) use `sisu` to create a database
- (4) use `sisu tp` to populate a database
- (5) use `sisu` to start the webrick (`httpd`) server
- (6) use `sisu` to create a search form
- (7) copy the search form to the `cgi` directory
- (8) open up the form in your browser
- (9) query the database using the search form

#### (1) make sure the required dependencies have been installed

if you use **Debian** , the following command will install the required de-

dependencies

aptitude install sisu-sqlite

## (2) have a directory with sisu markup samples that is writable

ideally copy the sisu-examples directory to your home directory (because the directory in which you run this example should be writable)

```
cp -rv /usr/share/sisu-examples/sample/document_samples_sisu_markup
~/.
```

## (3) use sisu to create an sqlite database

within the sisu-examples directory

```
sisu -dv createall
```

## (4) use sisu tp populate a database with some text

within the sisu-examples directory

```
sisu -div free_*.sst
```

or

```
sisu -dv import free_*.sst debian_constitution_v1.2.sst de-
bian_social_contract_v1.1.sst gpl2.fsf.sst
```

## (5) use sisu to start the webrick (httpd) server (if it has not already been started):

```
sisu -W
```

## (6) use sisu to create a search form (for use with the webrick server, and your sample documents)

within the sisu-examples directory

```
sisu -F webrick
```

#here i run into a problem, you are working from a read only #directory..., not my usual mode of operation, to complete the example #the following is necessary sudo touch sisu\_sqlite.cgi sisu\_pgsql.cgi sudo -P chown \$USER sisu\_sqlite.cgi sisu\_pgsql.cgi

#now this should be possible: sisu -F webrick

## (7) copy the search form to the cgi directory

the string should be provided as output from the previous command

```
sudo cp -vi /usr/share/sisu-examples/sample/document_samples_sisu_markup/sisu_sq
/usr/lib/cgi-bin
```

```
sudo chmod -v 755 /usr/lib/cgi-bin/sisu_sqlite.cgi
```

## (8) open up the form in your browser and query it

url:

<[http://localhost:8081/cgi-bin/sisu\\_sqlite.cgi](http://localhost:8081/cgi-bin/sisu_sqlite.cgi)>

or as instructed by command sisu -F webrick

## (9) query the database using the search form

if there are other options in the dropdown menu select

document\_samples\_sisu\_markup

and search for some text, e.g.:

aim OR project

- selecting the **index** radio button gives an index of results using the object numbers

- selecting the **text** radio button gives the content of the matched paragraphs with the match highlighted

## (10) to start again with a new database

to start from scratch you can drop the database with the command

```
sisu -dv dropall
```

and go to step 3

to get to step 3 in one step with a single command

```
sisu -dv recreate
```

continue subsequent steps

1549	<b>38.2 misc</b>	rsync	1568
1550	<b>38.2.1 url for output files -u -U</b>	sisu -vR[and processing flags] [filename/wildcard]	1569
1551	sisu -uv[and other flags] [filename/wildcard]		
1552	sisu -Uv [filename/wildcard]		
1553	<b>38.2.2 toggle screen color</b>		
1554	sisu -cv[and processing flags] [filename/wildcard]		
1555	<b>38.2.3 verbose mode</b>		
1556	sisu -v[and processing flags] [filename/wildcard]		
1557	sisu -V[and processing flags] [filename/wildcard]		
1558	<b>38.2.4 quiet mode</b>		
1559	sisu -q[and processing flags] [filename/wildcard]		
1560	<b>38.2.5 maintenance mode intermediate files kept -M</b>		
1561	sisu -Mv[and other flags] [filename/wildcard]		
1562	<b>38.2.6 start the webrick server</b>		
1563	sisu -W		
1564	<b>38.3 remote placement of output</b>		
1565	configuration is necessary		
1566	scp		
1567	sisu -vr[and processing flags] [filename/wildcard]		

## 39. Configuration Files

Sample provided, on untarring the source tarball:

conf/sisu/sisurc.yaml

and on installation under:

/etc/sisu/sisurc.yaml

The following paths are searched:

./\_sisu/sisurc.yaml

~/.sisu/sisurc.yaml

/etc/sisu/sisurc.yaml

## 40. Markup

See sample markup provided on

[<http://www.jus.uio.no/sisu>](http://www.jus.uio.no/sisu)

[<http://www.jus.uio.no/sisu\\_markup>](http://www.jus.uio.no/sisu_markup)

[<http://www.jus.uio.no/sisu/SiSU>](http://www.jus.uio.no/sisu/SiSU)

in particular for each of the document output samples provided, the source document is provided as well

<http://www.jus.uio.no/sisu/SiSU/2#books>

on untarring the source tarball:

data/sisu-examples/sample/document\_samples\_sisu\_markup/

or the same once source is installed (or sisu-examples) under:

/usr/share/sisu-examples/sample/document\_samples\_sisu\_markup/

Some notes are contained within the man page, **man sisu** and within sisu help via the commands **sisu help markup** and **sisu help headers**

**SiSU** is for literary and legal text, also for some social science material. In particular it does not do formula, and is not particularly suited to technical documentation. Despite the latter caveat, some notes will be provided here and added to over time:

### 40.1 Headers

Headers @headername: provide information related to the document, this may relate to

1. how it is to be processed, such as whether headings are to be numbered, what skin is to be used and markup instructions, such as the document structure, or words to be made bold within the document

2. semantic information about the document including the dublin core

## 40.2 Font Face

Defaults are set. You may change the face to: bold, italics, underscore, strikethrough, ...

### 40.2.1 Bold

**bold:** [list of words that should be made bold within document]

#### **bold line**

!\_ bold line

#### **bold word or sentence**

!{ bold word or sentence }!

\*{ bold word or sentence }\*

#### **boldword** or **boldword**

\*boldword\* or !boldword!

### 40.2.2 Italics

*italics:* [list of words that should be italicised within document]

*italicise word or sentence*

/ { italicise word or sentence } /

*italicisedword*

/italicisedword/

### 40.2.3 Underscore

underscore word or sentence

\_{ underscore word or sentence }\_

underscoreword

### 40.2.4 Strikethrough

~~strikethrough word or sentence~~

- { strikethrough word or sentence } -

strikeword

-strikeword-

### 40.3 Endnotes

There are two forms of markup for endnotes, they cannot be mixed within the same document

here<sup>105</sup>

1. preferred endnote markup

here~ { this is an endnote }~

2. alternative markup equivalent, kept because it is possible to search and replace to get markup in existing texts such as Project Gutenberg

here~

~thisisanendnote

### 40.4 Links

SiSU

{ SiSU } <http://sisudoc.org>



{sisu.png} <http://sisudoc.org>

<sup>105</sup>this is an endnote



{ tux.png 64x80 }image

SiSU <sup>106</sup>

{ SiSU }http://sisudoc.org

is equivalent to:

{ SiSU }http://sisudoc.org ~ { <http://sisudoc.org> }~

the same can be done with an image:



SiSU <sup>108</sup>

{ sisu.png “SiSU ” }http://sisudoc.org

## 40.5 Number Titles

Set with the header @markup:

## 40.6 Line operations

Line Operations (marker placed at start of line)

!\_ bold line

**bold line**

\_1 indent paragraph one level

<sup>106</sup><http://sisudoc.org>

<sup>108</sup><http://sisudoc.org>

indent paragraph one level

\_2 indent paragraph two steps

indent paragraph two steps

\_\* bullet paragraph

• bullet paragraph

{# number paragraph (see headers for numbering document headings)

1. number paragraph (see headers for numbering document headings)

\_# number paragraph level 2 (see headers for numbering document headings)

a. number paragraph level 2 (see headers for numbering document headings)

## 40.7 Tables

Table markup sample

table{~ h c3; 26; 32; 32;

This is a table, column1

this would become row one of column two

column three of row one is here

column one row 2

column two of row two

column three of row two, and so on

column one row three



and so on

here

}table

but the apple fermented inside the lamented,

and made cider inside her inside.

}

## Alternative form of table markup

```
{t~h}
|Mon|Tue|Wed|Thu|Fri|Sat|Sun
0 |*|*|*|*|*|*|*|*
1 |*|*|*|*|*| | |
2 | - |*|*|*|*|*|
3 | - |*|*|*|*|*|*
4 | - | | |*|*|*|
5 |*|*|*|*|*|*|*|*
```

## 40.9 Composite Document

To import another document, the master document or importing document should be named filename.r3 (r for require)

```
<< { filename.sst }
```

```
<< { filename.ssi }
```

## 40.8 Grouped Text

```
5.times { puts 'Ruby' }
```

```
code{
  5.times { puts 'Ruby' }
```

```
}code
```

A Limerick

There was a young lady from Clyde,  
who ate a green apple and died,  
but the apple fermented inside the lamented,  
and made cider inside her inside.

```
poem{
```

There was a young lady from Clyde,  
who ate a green apple and died,

## 41. Change Appearance

### 41.1 Skins

“Skins” may be used to change various aspects related to the output documents appearance, including such things as the url for the home page on which the material will be published, information on the credit band, and for html documents colours and icons used in navigation bars. Skins are ruby files which permit changing of the default values set within the program for **SiSU** output.

There are a few examples provided, on untarring the source tarball:

```
conf/sisu/skin/doc/
```

```
data/sisu-examples/sample/document_samples_sisu_markup/_sisu/skin/doc
```

and on installation under:

```
/etc/sisu/skin/doc/
```

```
/usr/share/sisu-examples/sample/document_samples_sisu_markup/_sisu/skin/doc
```

The following paths are searched:

```
./_sisu/skin
```

```
~/.sisu/skin
```

```
/etc/sisu/skin
```

Skins under the searched paths in a per document directory, a per directory directory, or a site directory, named:

doc [may be specified individually in each document]

dir [used if identifier part of name matches markup directory name]

site

It is usual to place all skins in the document directory, with symbolic links as required from dir or site directories.

### 41.2 CSS

The appearance of html and XML related output can be changed for an output collection directory by preparing and placing a new css file in one of the sisu css directories searched in the sisu configuration path. These are located at:

```
./_sisu/css
```

```
~/.sisu/css
```

and

```
/etc/sisu/css
```

The contents of the first directory found in the search path are copied to the corresponding sisu output directory with the command:

```
sisu -CC
```

The **SiSU** standard css files for **SiSU** output are:

```
dom.css html.css html_tables.css index.css sax.css xhtml.css
```

A document may specify its own/bespoke css file using the css header.

css:

[expand]

1714

## EXTRACTS FROM THE README

## 42. README

1715

SiSU 0.55 2007w27/6 2007-07-07

1716

Homepage: <<http://www.jus.uio.no/sisu>>

1717

### Description

1718

SiSU is lightweight markup based document creation and publishing framework that is controlled from the command line. Prepare documents for SiSU using your text editor of choice, then use SiSU to generate various output document formats.

1719

With minimal preparation of a plain-text (UTF-8) file using its native markup-syntax, SiSU produces: plain-text, HTML, XHTML, XML, ODF:ODT (Opendocument), LaTeX, PDF, and populates an SQL database (PostgreSQL or SQLite) in paragraph sized chunks so that document searches are done at this “atomic” level of granularity.

1720

Outputs share a common citation numbering system, and any semantic meta-data provided about the document.

1721

SiSU also provides concordance files, document content certificates and manifests of generated output.

1722

SiSU takes advantage of well established open standard ways of representing text, and provides a bridge to take advantage of the strengths of each, while remaining simple. SiSU implements across document formats a “useful common feature set” [coming from a humanities, law, and possibly social sciences perspective, rather than technical or scientific writing] ... focus is primarily on content and data integrity rather than appearance, (though outputs in the various formats are respectable).

1723

A vim syntax highlighting file and an ftplugin with folds for sisu markup is provided. Vim 7 includes syntax highlighting for SiSU.

1724

man pages, and interactive help are provided.

1725

Dependencies for various features are taken care of in sisu related pack-

1726

ages. The package sisu-complete installs the whole of **SiSU** .

Additional document markup samples are provided in the package sisu-markup-samples which is found in the non-free archive the licenses for the substantive content of the marked up documents provided is that provided by the author or original publisher.

Homepage: [<http://www.jus.uio.no/sisu>](http://www.jus.uio.no/sisu)

**SiSU** - simple information structuring universe, is a publishing tool, document generation and management, (and search enabling) tool primarily for literary, academic and legal published works.

**SiSU** can be used for Internet, Intranet, local filesystem or cd publishing.

**SiSU** can be used directly off the filesystem, or from a database.

**SiSU** 's scalability, is be dependent on your hardware, and filesystem (in my case Reiserfs), and/or database Postgresql.

Amongst it's characteristics are:

- simple mnemonoic markup style,
- the ability to produce multiple output formats, including html, structured XML, LaTeX, pdf (via LaTeX), stream to a relational database whilst retaining document structure - Postgresql and Sqlite,
- that all share a common citation system (a simple idea from which much good), possibly most exciting, the following: if fed into a relational database (as it can be automatically), the document set is searchable, with results displayed at a paragraph level, or the possibility of an indexed display of documents in which the match is found together with a hyperlinked listing for each of each paragraph in which the match is found. In any event citations using this system (with or without the relational database) are relevant for all output formats.
- it is command line driven, and can be set up on a remote server
- Documents are marked up in **SiSU** syntax in your favourite editor.

**SiSU** syntax may be regarded as a type of smart ascii - which in its basic form is simpler than the most elementary html. There is currently a syntax highlighter, and folding for Vim. Syntax highlighters for other editors are welcome.

Input files should be UTF-8

Once set up it is simple to use.

## 42.1 Online Information, places to look

[<http://www.jus.uio.no/sisu>](http://www.jus.uio.no/sisu)

Download Sources:

<http://www.jus.uio.no/sisu/SiSU/download.html#current>

<http://www.jus.uio.no/sisu/SiSU/download.html#debian>

## 42.2 Installation

NB. Platform is Unix / Linux.

### 42.2.1 Debian

If you use **Debian** use the **Debian** packages, check the information at:

<http://www.jus.uio.no/sisu/SiSU/download.html#debian>

(A) **SiSU** is available directly off the **Debian** archives for Sid and testing. It should necessary only to run as root:

aptitude update

aptitude install sisu-complete

(B) If there are newer versions of **SiSU** upstream of the **Debian** archives, they will be available by adding the following to your `/etc/apt/sources.list`

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

[the non-free line is for document markup samples, for which the substantive text is provided under the author or original publisher's license and which in most cases will not be debian free software guideline compliant]

Then as root run:

```
aptitude update
aptitude install sisu-complete
```

## 42.2.2 RPM

RPMs are provided though untested, they are prepared by running alien against the source package, and against the debs.

They may be downloaded from:

<http://www.jus.uio.no/sisu/SiSU/download.html#rpm>

## 42.2.3 Source package .tgz

Otherwise to install **SiSU** from source, check information at:

<http://www.jus.uio.no/sisu/SiSU/download.html#current>

alternative modes of installation from source are provided, `setup.rb` (by Minero Aoki), `rake` (by Jim Weirich) built install file, `rant` (by Stefan Lang) built install file,

**Ruby** is the essential dependency for the basic operation of **SiSU**

1. Download the latest source (information available) from:

<http://www.jus.uio.no/sisu/SiSU/download.html#current>

2. Unpack the source

Note however, that additional external package dependencies, such as `texlive` or `postgresql` should you desire to use it are not taken care of for you.

## 42.2.4 to use setup.rb

this is a three step process, in the root directory of the unpacked **SiSU** as root type:

```
ruby setup.rb config
ruby setup.rb setup
```

as root:

```
ruby setup.rb install
```

further information:

<<http://i.loveruby.net/en/projects/setup/>>

<<http://i.loveruby.net/en/projects/setup/doc/usage.html>>

## 42.2.5 to use install (prepared with “Rake”)

Rake must be installed on your system:

<<http://rake.rubyforge.org/>>

<[http://rubyforge.org/frs/?group\\_id=50](http://rubyforge.org/frs/?group_id=50)>

in the root directory of the unpacked **SiSU** as root type:

```
rake
```

or

```
rake base
```

This makes use of Rake (by Jim Weirich) and the provided Rakefile

180891

For a list of alternative actions you may type:

1809

rake help

rake -T

## 42.3 Dependencies

Once installed see ‘man 8 sisu’ for some information on additional programs that sisu makes use of, and that you may need or wish to install. (this will depend on such factors as whether you want to generate pdf, whether you will be using **SiSU** with or without a database, ...) ‘man sisu\_markup-samples’ may also be of interest if the sisu-markup-samples package has also been installed.

The information in man 8 may not be most up to date, and it is possible that more useful information can be gleaned from the following notes taken from the **Debian** control file (end edited), gives an idea of additional packages that **SiSU** can make use of if available, (the use/requirement of some of which are interdependent for specific actions by **SiSU** ).

The following is from the debian/control file of sisu-0.58.2, which amongst other things provides the dependencies of sisu within **Debian**

```
.
Package: sisu
Architecture: all
Depends: ruby (>= 1.8.2), libwebrick-ruby, unzip, zip
Conflicts: vim-sisu, sisu-vim, sisu-remote
Replaces: vim-sisu, sisu-vim
Recommends: sisu-pdf, sisu-sqlite, sisu-postgresql, libmagick-ruby, trang,
tidy, libxml-ruby, openssl, rsync, openssh-client | lsh-client, keychain,
hyperestraier, kdissert, vim-addon-manager
Suggests: rcs | cvs, lv, texinfo, pinfo
Package: sisu-complete
Depends: ruby (>= 1.8.4), sisu, sisu-pdf, sisu-postgresql, sisu-sqlite
Recommends: hyperestraier
Package: sisu-pdf
Architecture: all
Depends: sisu, texlive-latex-base, texlive-fonts-recommended,
texlive-latex-recommended, texlive-latex-extra
Suggests: evince, xpdf
Package: sisu-postgresql
Depends: sisu, postgresql-8.1, libdbi-ruby, libdbm-ruby, libdbd-pg-ruby
```

### 42.2.6 to use install (prapared with “Rant”)

(you may use the instructions above for rake substituting rant if rant is installed on your system, or you may use an independent installer created using rant as follows:)

in the root directory of the unpacked **SiSU** as root type:

ruby ./sisu-install

or

ruby ./sisu-install base

This makes use of Rant (by Stefan Lang) and the provided Rantfile. It has been configured to do post installation setup setup configuration and generation of first test file. Note however, that additional external package dependencies, such as tetex-extra are not taken care of for you.

further information:

<<http://make.rubyforge.org/>>

<[http://rubyforge.org/frs/?group\\_id=615](http://rubyforge.org/frs/?group_id=615)>

For a list of alternative actions you may type:

ruby ./sisu-install help

ruby ./sisu-install -T

1813

Suggests: pgaccess, libdbd-pgsql, postgresql-contrib-8.1  
 Package: sisu-sqlite  
 Depends: sisu, sqlite, libdbi-ruby, libdbm-ruby, libdbd-sqlite-ruby  
 Suggests: libdbd-sqlite  
 Package: sisu-markup-samples  
 Depends: sisu  
 Source: sisu  
 Section: text  
 Priority: optional  
 Maintainer: Ralph Amissah <ralph@amissah.com>  
 Build-Depends: debhelper (>= 5)  
 Standards-Version: 3.7.2  
 Package: sisu  
 Architecture: all  
 Depends: ruby (>= 1.8.2), libwebrick-ruby, unzip, zip  
 Conflicts: vim-sisu, sisu-vim, sisu-remote  
 Replaces: vim-sisu, sisu-vim  
 Recommends: sisu-pdf, sisu-sqlite, sisu-postgresql, hyperestraier, keychain, librmagick-ruby, librexml-ruby, openssl, openssh-client | lsh-client, rsync, tidy, vim-addon-manager  
 Suggests: kdisert, lv, rcs | cvs, pinfo, texinfo, trang  
 Description: documents - structuring, publishing in multiple formats and search  
 SiSU is a lightweight markup based, command line oriented, document structuring, publishing and search framework for document collections.

.

With minimal preparation of a plain-text, (UTF-8) file, using its native markup syntax in your text editor of choice, SiSU can generate various document formats (most of which share a common object numbering system for locating content), including plain text, HTML, XHTML, XML, OpenDocument text (ODF:ODT), LaTeX, PDF files, and populate an SQL database with objects (roughly paragraph-sized chunks) so searches may be performed and matches returned with that degree of granularity: your search criteria is met by these documents and at these locations within each document. Object numbering is particularly suitable for "published" works (finalized texts as opposed to works that are frequently changed or updated) for which it provides a fixed means of reference of content. Document outputs also share semantic meta-data provided.

.

SiSU also provides concordance files, document content certificates and manifests of generated output.

.

A vim syntax highlighting file and an ftplugin with folds for sisu markup is provided, as are syntax highlighting files for kate, kwrite, gedit and diakonos. Vim 7 includes syntax highlighting for SiSU.

.

man pages, and interactive help are provided.

.

Dependencies for various features are taken care of in sisu related packages. The package sisu-complete installs the whole of SiSU.

.

Additional document markup samples are provided in the package sisu-markup-samples which is found in the non-free archive the licenses for the substantive content of the marked up documents provided is that provided by the author or original publisher.

.

Homepage: <<http://www.jus.uio.no/sisu>>

Package: sisu-complete

Architecture: all

Depends: ruby (>= 1.8.2), sisu, sisu-pdf, sisu-postgresql, sisu-sqlite

Recommends: hyperestraier

Description: installs all SiSU related packages

This package installs SiSU and related packages that enable sisu to produce pdf and to populate postgresql and sqlite databases.

.

SiSU is a lightweight markup based document publishing framework.

.

See sisu for a description of the package.

.

Homepage: <<http://www.jus.uio.no/sisu>>

Package: sisu-pdf

Architecture: all

Depends: sisu, texlive-latex-base, texlive-fonts-recommended, texlive-latex-recommended, texlive-latex-extra

#Suggests: evince, xpdf

Description: dependencies to convert SiSU LaTeX output to pdf

This package enables the conversion of SiSU LaTeX output to pdf.

.

SiSU is a lightweight markup based document publishing framework.

.

1814

1815

Homepage: <<http://www.jus.uio.no/sisu>>

Package: sisu-postgresql

Architecture: all

Depends: sisu, libdbd-pg-ruby, libdbi-ruby, libdbm-ruby, postgresql

Recommends: libfcgi-ruby

Suggests: postgresql-contrib

Description: SiSU dependencies for use with postgresql database

This package enables SiSU to populate a postgresql database. This is done at an object/paragraph level, making granular searches of documents possible.

.

This relational database feature of SiSU is not required but provides interesting possibilities, including that of granular searches of documents for matching units of text, primarily paragraphs that can be displayed or identified by object citation number, from which an index of documents matched and each matched paragraph within them can be displayed.

.

SiSU is a lightweight markup based document publishing framework.

.

Homepage: <<http://www.jus.uio.no/sisu>>

Package: sisu-sqlite

Architecture: all

Depends: sisu, sqlite, libdbd-sqlite-ruby, libdbi-ruby, libdbm-ruby

Recommends: libfcgi-ruby

Description: SiSU dependencies for use with sqlite database

This package enables SiSU to populate an sqlite database. This is done at an object/paragraph level, making granular searches of documents possible.

.

This relational database feature of SiSU is not required but provides interesting possibilities, including that of granular searches of documents for matching units of text, primarily paragraphs that can be displayed or identified by object citation number, from which an index of documents matched and each matched paragraph within them can be displayed.

.

SiSU is a lightweight markup based document publishing framework.

.

Homepage: <<http://www.jus.uio.no/sisu>>

181816

## 42.4 Quick start

Most of the installation should be taken care of by the aptitude or rant install. (The rant install if run in full will also test run the generation of the first document).

After installation of sisu-complete, move to the document samples directory

```
cd /usr/share/doc/sisu/sisu_markup_samples/dfsg
```

and run

```
sisu -3 free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

or the same:

```
sisu -NhwpoabxXyv free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

look at output results, see the “sisu\_manifest” page created for the document

or to generate an online document move to a writable directory, as the file will be downloaded there and e.g.

```
sisu -3 <http://www.jus.uio.no/sisu/free\_culture.lawrence\_lessig/free\_culture.lawrence\_lessig.sst>
```

the database stuff is extra perhaps, the latex stuff could be considered extra perhaps but neither needs to be installed for most of sisu output to work

examine source document, vim has syntax support

```
gvim free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

additional markup samples in

```
<http://www.jus.uio.no/sisu/SiSU/2.html>
```

For help

```
man sisu
```

or

1817



sisu –help

e.g.

for the way sisu “sees/maps” your system

sisu –help env

for list of commands and so on

sisu –help commands

## 42.5 Configuration files

The default configuration/setup is contained within the program and is altered by configuration settings in *etc*[sisu version]/sisurc.yml or in *~/.sisu/sisurc.yml*

- configuration file - a yaml file

*/etc/sisu/[sisu version]/sisurc.yml*

*~/.sisu/sisurc.yml*

- directory structure - setting up of output and working directory.

\* skins - changing the appearance of a project, directory or individual documents within *~/.sisu/skin*

*~/.sisu/skin/doc* contains individual skins, with symbolic links from

*~/.sisu/skin/dir* if the contents of a directory are to take a particular document skin.

- additional software - eg. Tex and LaTeX (tetex, tetex-base, tetex-extra on **Debian** ), Postgresql, [sqlite], trang, tidy, makeinfo, ... none of which are required for basic html or XML processing.

- if you use Vim as editor there is a syntax highlighter and fold resource config file for **SiSU** . I hope more syntax highlighters follow.

There are post installation steps (which are really part of the overall in-

stallation)

sisu -C in your marked up document directory, should do some auto-configuring provided you have the right permissions for the output directories. (and provided the output directories have already been specified if you are not using the defaults).

## 42.6 Use General Overview

Documents are marked up in **SiSU** syntax and kept in an ordinary text editable file, named with the suffix .sst, or .ssm

Marked up **SiSU** documents are usually kept in a sub-directory of your choosing

use the interactive help and man pages

sisu –help

man sisu

## 42.7 Help

interactive help described below, or man page:

man sisu

man 8 sisu

‘man sisu\_markup-samples’ [if the sisu-markup-samples package is also installed]

Once installed an interactive help is available typing ‘sisu’ (without) any flags, and select an option:

sisu

alternatively, you could type e.g.

sisu –help commands

	sisu --help env	189071	man 8 sisu	
1872	sisu --help headers		Once installed there is some information on <b>SiSU</b> Markup in its help:	1891
1873	sisu --help markup			
1874	sisu --help headings		sisu --help markup	1892
1875	etc.		and	1893
1876	for questions about mappings, output paths etc.		sisu --help headers	1894
1877	sisu --help env		Sample marked up document are provided with the download tarball in the directory:	1895
1878	sisu --help path			
1879	sisu --help directory		./data/doc/sisu/sisu_markup_samples/dfsg	1896
			These are installed on the system usually at:	1897
1880	<b>42.8 Directory Structure</b>		/usr/share/doc/sisu/sisu_markup_samples/dfsg	1898
1881	Once installed, type:		More markup samples are available in the package sisu-markup-samples	1899
1882	sisu --help env			
1883	or		<a href="http://www.jus.uio.no/sisu/SiSU/download.html#sisu-markup-samples">http://www.jus.uio.no/sisu/SiSU/download.html#sisu-markup-samples</a>	1900
1884	sisu -V		Many more are available online off:	1901
			< <a href="http://www.jus.uio.no/sisu/SiSU/2.html">http://www.jus.uio.no/sisu/SiSU/2.html</a> >	1902
1885	<b>42.9 Configuration File</b>			
1886	The defaults can be changed via <b>SiSU</b> 's configure file sisurc.yml which the program expects to find in ./_sisu ~/./sisu or /etc/sisu (searched in that order, stopping on the first one found)		<b>42.11 Additional Things</b>	1903
			There is syntax support for some editors provided (together with a README file) in	1904
1887	<b>42.10 Markup</b>		./data/sisu/conf/syntax	1905
1888	See man pages.		usually installed to:	1906
1889	man sisu		/usr/share/sisu/conf/syntax	1907

## 42.12 License

1908

License: GPL 3 or later see the copyright file in

./data/doc/sisu

usually installed to:

/usr/share/doc/sisu

## 42.13 SiSU Standard

**SiSU** uses:

- Standard **SiSU** markup syntax,
  - Standard **SiSU** meta-markup syntax, and the
  - Standard **SiSU** object citation numbering and system
- © Ralph Amissah 1997, current 2006 All Rights Reserved.
- however note the License section

CHANGELOG

./CHANGELOG

and see

<<http://www.jus.uio.no/sisu/SiSU/changelog.html>>

<[http://www.jus.uio.no/sisu/SiSU/changelog\\_markup\\_samples.html](http://www.jus.uio.no/sisu/SiSU/changelog_markup_samples.html)>

**EXTRACTS FROM MAN 8 SISU****43. Post Installation Setup**

1926

**43.1 Post Installation Setup - Quick start**

1927

After installation of sisu-complete, move to the document samples directory,

1928

```
cd /usr/share/doc/sisu/sisu_markup_samples/dfsg
```

1929

[this is not where you would normally work but provides sample documents for testing, you may prefer instead to copy the contents of that directory to a local directory before proceeding]

1930

and in that directory, initialise the output directory with the command

1931

```
sisu -CC
```

1932

then run:

1933

```
sisu -l free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

1934

or the same:

1935

```
sisu -NhwpobxXyv free_as_in_freedom.rms_and_free_software.sam_williams.sst
```

look at output results, see the “sisu\_manifest” page created for the document

1937

for an overview of your current sisu setup, type:

1938

```
sisu --help env
```

1939

or

1940

```
sisu -V
```

1941

To generate a document from a remote url accessible location move to a writable directory, (create a work directory and cd into it) as the file will be downloaded there and e.g.

1942

```
sisu -l <http://www.jus.uio.no/sisu/gpl3.fsf/gpl3.fsf.sst>
```

1943

sisu -3 <[http://www.jus.uio.no/sisu/free\\_culture.lawrence\\_lessig/free\\_culture.lawrence\\_lessig.sst](http://www.jus.uio.no/sisu/free_culture.lawrence_lessig/free_culture.lawrence_lessig.sst)> 196244

examine source document, vim has syntax highlighting support

gvim free\_as\_in\_freedom.rms\_and\_free\_software.sam\_williams.sst

additional markup samples in

<<http://www.jus.uio.no/sisu/SiSU/2.html>>

it should also be possible to run sisu against sisupods (prepared zip files, created by running the command sisu -S [filename]), whether stored locally or remotely.

sisu -3 <[http://www.jus.uio.no/sisu/free\\_culture.lawrence\\_lessig/sisupod.zip](http://www.jus.uio.no/sisu/free_culture.lawrence_lessig/sisupod.zip)>

there is a security issue associated with the running of document skins that are not your own, so these are turned off by default, and the use of the following command, which switches on the associated skin is not recommended:

sisu -3 -trust <[http://www.jus.uio.no/sisu/free\\_culture.lawrence\\_lessig/sisupod.zip](http://www.jus.uio.no/sisu/free_culture.lawrence_lessig/sisupod.zip)>

For help

man sisu

sisu -help

sisu -help env for the way sisu “sees/maps” your system

sisu -help commands for list of commands and so on

## 43.2 Document markup directory

Perhaps the easiest way to begin is to create a directory for sisu marked up documents within your home directory, and copy the file structure (and document samples) provided in the document sample directory:

mkdir ~/sisu\_test

cd ~/sisu\_test

cp -a /usr/share/doc/sisu/sisu\_markup\_samples/dfsg/\* ~/sisu\_test/.

**Tip:** the markup syntax examples may be of interest

<<http://www.jus.uio.no/sisu/sample/>>

**Tip:**

sisu -U [sisu markup filename]

should printout the different possible outputs and where sisu would place them.

**Tip:** if you want to toggle ansi color add

c

to your flags.

### 43.2.1 Configuration files

SiSU configuration file search path is:

./\_sisu/sisurc.yaml

~/\_sisu/sisurc.yaml

/etc/sisu/sisurc.yaml

%%% **Debian** Installation Note

### 43.2.2 Debian INSTALLATION Note

It is best you see

<http://www.jus.uio.no/sisu/SiSU/download.html#debian>

for up the most up to date information.

notes taken from the **Debian** control file (end edited), gives an idea of additional packages that SiSU can make use of if available, (the

use/requirement of some of which are interdependent for specific actions by **SiSU** ):

Package: sisu

**SiSU** is a lightweight markup based, command line oriented, document structuring, publishing and search framework for document collections.

With minimal preparation of a plain-text, (UTF-8) file, using its native markup syntax in your text editor of choice, **SiSU** can generate various document formats (most of which share a common object numbering system for locating content), including plain text, HTML, XHTML, XML, OpenDocument text (ODF:ODT), LaTeX, PDF files, and populate an SQL database with objects (roughly paragraph-sized chunks) so searches may be performed and matches returned with that degree of granularity: your search criteria is met by these documents and at these locations within each document. Object numbering is particularly suitable for “published” works (finalized texts as opposed to works that are frequently changed or updated) for which it provides a fixed means of reference of content. Document outputs also share semantic meta-data provided.

**SiSU** also provides concordance files, document content certificates and manifests of generated output.

A vim syntax highlighting file and an ftplugin with folds for sisu markup is provided, as are syntax highlighting files for kate, kwrite, gedit and diakonos. Vim 7 includes syntax highlighting for **SiSU** .

man pages, and interactive help are provided.

Dependencies for various features are taken care of in sisu related packages. The package sisu-complete installs the whole of **SiSU** .

Additional document markup samples are provided in the package sisu-markup-samples which is found in the non-free archive the licenses for the substantive content of the marked up documents provided is that provided by the author or original publisher.

Homepage: <<http://www.jus.uio.no/sisu>>

### 43.2.3 Document Resource Configuration

**sisu** resource configuration information is obtained from sources (where they exist):

~ /.sisu/sisurc.yaml

/etc/sisu/[sisu version]/sisurc.yaml

sisu program defaults

### 43.2.4 Skins

**Skins** default document appearance may be modified using skins contained in sub-directories located at the following paths:

./\_sisu/skin

~ /.sisu/skin

/etc/sisu/skin

more specifically, the following locations (or their /etc/sisu equivalent) should be used:

~ /.sisu/skin/doc

skins for individual documents;

~ /.sisu/skin/dir

skins for directories of matching names;

~ /.sisu/skin/site

site-wide skin modifying the site-wide appearance of documents.

Usually all skin files are placed in the document skin directory:

~ /.sisu/skin/doc

with softlinks being made to the skins contained there from other skin directories as required. 2010

## 44. FAQ - Frequently Asked/Answered Questions 2011

### 44.1 Why are urls produced with the -v (and -u) flag that point to a web server on port 8081? 2012

Try the following rune: 2013

- sisu -W 2014

This should start the ruby webserver. It should be done after having produced some output as it scans the output directory for what to serve. 2015

### 44.2 I cannot find my output, where is it? 2016

The following should provide help on output paths: 2017

- sisu -help env 2018
- sisu -V [same as the previous command] 2019
- sisu -help directory 2020
- sisu -help path 2021
- sisu -U [filename] 2022
- man sisu 2023

### 44.3 I do not get any pdf output, why? 2024

SiSU produces LaTeX and pdflatex is run against that to generate pdf files. 2025

If you use **Debian** the following will install the required dependencies 2026

- aptitude install sisu-pdf 2027

the following packages are required: tetex-bin, tetex-extra, latex-ucs 2028

#### 44.4 Where is the latex (or some other interim) output?

Try adding -M (for maintenance) to your command flags, e.g.:

- `sisu -HpMv [filename]`

this should result in the interim processing output being retained, and information being provided on where to find it.

- `sisu -help directory`

- `sisu -help path`

should also provide some relevant information as to where it is placed.

#### 44.5 Why isn't SiSU markup XML

I worked with text and (though I find XML immensely valuable) disliked noise ... better to sidestep the question and say:

**SiSU** currently “understands” three XML input representations - or more accurately, converts from three forms of XML to native **SiSU** markup for processing. The three types correspond to SAX (structure described), DOM (structure embedded, whole document must be read before structure is correctly discernable) and node based (a tree) forms of XML document structure representation. Problem is I use them very seldom and check that all is as it should be with them seldom, so I would not be surprised if something breaks there, but as far as I know they are working. I will check and add an XML markup help page before the next release. There already is a bit of information in the man page under the title **SiSU** VERSION CONVERSION

`sisu -to-sax [filename/wildcard]`

`sisu -to-dom [filename/wildcard]`

`sisu -to-node [filename/wildcard]`

The XML should be well formed... must check, but lacks sensible headers. Suggestions welcome as to what to make of them. [For the present time I am satisfied that I can convert (both ways) between 3 forms of XML representation and **SiSU** markup].

`sisu -from-xml2sst [filename/wildcard]`

#### 44.6 LaTeX claims to be a document preparation system for high-quality typesetting. Can the same be said about SiSU?

**SiSU** is not really about type-setting.

LaTeX is the ultimate computer instruction type-setting language for paper based publication.

LaTeX is able to control just about everything that happens on page and pixel, position letters kerning, space variation between characters, words, paragraphs etc. formula.

**SiSU** is not really about type-setting at all. It is about a lightweight markup instruction that provides enough information for an abstraction of the documents structure and objects, from which different forms of representation of the document can be generated.

**SiSU** with very little markup instruction is able to produce relatively high quality pdf by virtue of being able to generate usable default LaTeX; it produces “quality” html by generating the html directly; likewise it populates an SQL database in a useful way with the document in object sized chunks and its meta-data. But **SiSU** works on an abstraction of the document's structure and content and custom builds suitable uniform output. The html for browser viewing and pdf for paper viewing/publishing are rather different things with different needs for layout - as indeed is what is needed to store information in a database in searchable objects.

The pdfs or html produced for example by open office based on open document format and other office/word processor suits usually attempt



to have similar looking outputs - your document rendered in html looks much the same, or in pdf... sisu is less this way, it seeks to have a starting point with as little information about appearance as possible, and to come up with the best possible appearance for each output that can be derived based on this minimal information.

Where there are large document sets, it provides consistency in appearance in each output format for the documents.

The excuse for going this way is, it is a waste of time to think much about appearance when working on substantive content, it is the substantive content that is relevant, not the way it looks beyond the basic informational tags - and yet you want to be able to take advantage of as many useful different ways of representing documents as are available, and for various types of output to be/look as good as it can for each medium/format in which it is presented, (with different mediums having different focuses) and **SiSU** tries to achieve this from minimal markup.

#### 44.7 How do I create GIN or GiST index in Postgresql for use in SiSU

This at present needs to be done “manually” and it is probably necessary to alter the sample search form. The following is a helpful response from one of the contributors of GiN to Postgresql Oleg Bartunov 2006-12-06:

“I have tsearch2 slides which introduces tsearch2 <http://www.sai.msu.su/~megeera/wiki/tsearch2slides>

FTS in PostgreSQL is provided by tsearch2, which should work without any indices (GiST or GIN) ! Indices provide performance, not functionality.

In your example I'd do ( simple way, just for demo):

0. compile, install tsearch2 and load tsearch2 into your database

```
cd contrib/tsearch2; make install; make installcheck; psql DB < tsearch2.sql
```

1. Add column fts, which holds tsvector  
alter table documents add column fts tsvector;

2. Fill fts column  
update document set fts = to\_tsvector(clean);

3. create index - just for performance !  
create index fts\_gin\_idx on document using gin(fts);

4. Run vacuum  
vacuum analyze document;

That's all.

Now you can search:

```
select lid, metadata_tid, rank_cd(fts, q,2) as rank from document,
plainto_tsquery('markup syntax') q where q @@ fts order by rank desc
limit 10;
```

#### 44.8 Where is version 1.0?

**SiSU** works pretty well as it is supposed to. Version 1.0 will have the current markup, and directory structure. At this point it is largely a matter of choice as to when the name change is made.

The feature set for html,<sup>110</sup> LaTeX/pdf and opendocument is in place. XML, and plaintext are in order.

html and LaTeX/pdf may be regarded as reference copy outputs

With regard to the populating of sql databases (postgresql and sqlite), there is a bit to be done.

We are still almost there.

<sup>110</sup>html w3c compliance has been largely met.

## 45. Editor Files, Syntax Highlighting

The directory:

`./data/sisu/conf/editor-syntax-etc/`

`/usr/share/sisu/conf/editor-syntax-etc`

contains rudimentary sisu syntax highlighting files for:

- (g)vim <<http://www.vim.org>>

package: sisu-vim

status: largely done

there is a vim syntax highlighting and folds component

- gedit <<http://www.gnome.org/projects/gedit>>

- gobby <<http://gobby.0x539.de/>>

file: sisu.lang

place in:

`/usr/share/gtksourceview-1.0/language-specs`

or

`~/.gnome2/gtksourceview-1.0/language-specs`

status: very basic syntax highlighting

comments: this editor features display line wrap and is used by Goby!

- nano <<http://www.nano-editor.org>>

file: nanorc

save as:

`~/.nanorc`

status: basic syntax highlighting

comments: assumes dark background; no display line-wrap; does line breaks

- diakonos (an editor written in ruby) <<http://purepistos.net/diakonos>>

file: diakonos.conf

save as:

`~/.diakonos/diakonos.conf`

includes:

status: basic syntax highlighting

comments: assumes dark background; no display line-wrap

- kate and kwrite <<http://kate.kde.org>>

file: sisu.xml

place in:

`/usr/share/apps/katepart/syntax`

or

`~/.kde/share/apps/katepart/syntax`

[settings::configure kate::{highlighting,filetypes}]

[tools::highlighting::{markup,scripts}::SiSU ]

- nedit <<http://www.nedit.org>>

file: sisu\_nedit.pats

nedit -import sisu\_nedit.pats

status: a very clumsy first attempt [not really done]

comments: this editor features display line wrap

- emacs <<http://www.gnu.org/software/emacs/emacs.html>>

files: sisu-mode.el

to file `~/.emacs` add the following 2 lines:

(add-to-list 'load-path "/usr/share/sisu-examples/config/syntax\_hi")

(require 'sisu-mode.el)

[not done / not yet included]

- vim and gvim [<http://www.vim.org>](http://www.vim.org)

files:

package is the most comprehensive sisu syntax highlighting and editor environment provided to date (is for vim/ gvim, and is separate from the contents of this directory)

status: this includes: syntax highlighting; vim folds; some error checking

comments: this editor features display line wrap

NOTE:

[SiSU parses files with long lines or line breaks, but, display linewrap (without line-breaks) is a convenient editor feature to have for sisu markup]

## 46. Help Sources

For a summary of alternative ways to get help on SiSU try one of the following:

### man page

`man sisu_help`

### man2html

[<file:///usr/share/doc/sisu/html/sisu\\_help.1.html>](file:///usr/share/doc/sisu/html/sisu_help.1.html)

[<http://www.jus.uio.no/sisu/man/sisu\\_help.1.html>](http://www.jus.uio.no/sisu/man/sisu_help.1.html)

### sisu generated output - links to html

[<file:///usr/share/doc/sisu/sisu\\_manual/sisu\\_help/index.html>](file:///usr/share/doc/sisu/sisu_manual/sisu_help/index.html)

[<http://sisudoc.org/sisu\\_manual/sisu\\_help/index.html>](http://sisudoc.org/sisu_manual/sisu_help/index.html)

[<http://www.jus.uio.no/sisu/sisu\\_manual/sisu\\_help/index.html>](http://www.jus.uio.no/sisu/sisu_manual/sisu_help/index.html)

### help sources lists

Alternative sources for this help sources page listed here:

`man sisu_help_sources`

[<file:///usr/share/doc/sisu/sisu\\_manual/sisu\\_help\\_sources/index.html>](file:///usr/share/doc/sisu/sisu_manual/sisu_help_sources/index.html)

[<file:///usr/share/doc/sisu/html/sisu\\_help\\_sources/index.html>](file:///usr/share/doc/sisu/html/sisu_help_sources/index.html)

[<http://sisudoc.org/sisu\\_manual/sisu\\_help\\_sources/index.html>](http://sisudoc.org/sisu_manual/sisu_help_sources/index.html)

[<http://www.jus.uio.no/sisu/sisu\\_manual/sisu\\_help\\_sources/index.html>](http://www.jus.uio.no/sisu/sisu_manual/sisu_help_sources/index.html)

## 46.1 man pages

### 46.1.1 man

`man sisu`

`man sisu_commands`

	man 7 sisu_complete	217656	<b>46.2 sisu generated output - links to html</b>	
2157	man sisu_configuration	2177	Note <b>SiSU</b> documentation is prepared in <b>SiSU</b> and output is available in multiple formats including amongst others html, pdf, and odf which may be also be accessed via the html pages <sup>111</sup>	
2158	man 8 sisu_faq			
2159	man sisu_filetypes			
2160	man sisu_help		<b>46.2.1 locally installed</b>	2178
2161	man sisu_help_sources		< <a href="file:///usr/share/doc/sisu/sisu_manual/sisu_manual/index.html">file:///usr/share/doc/sisu/sisu_manual/sisu_manual/index.html</a> >	2179
2162	man 8 sisu_howto		< <a href="file:///usr/share/doc/sisu/sisu_manual/sisu_help/index.html">file:///usr/share/doc/sisu/sisu_manual/sisu_help/index.html</a> >	2180
2163	man sisu_introduction		< <a href="file:///usr/share/doc/sisu/sisu_manual/sisu_help_sources/index.html">file:///usr/share/doc/sisu/sisu_manual/sisu_help_sources/index.html</a> >	2181
2164	man sisu_markup		/usr/share/doc/sisu/sisu_manual/sisu/index.html	2182
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			<sup>11</sup> hamed index.html or more extensively through sisu_manifest.html	

2284 /usr/share/doc/sisu/html/sisu\_webrick.1.html

## 46.2.7 www.jus.uio.no/sisu

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## 46.2.6 www.sisudoc.org

2285 [<http://sisudoc.org/man/sisu\\_manual.1.html>](http://sisudoc.org/man/sisu_manual.1.html)

2286 [<http://sisudoc.org/man/sisu\\_help.1.html>](http://sisudoc.org/man/sisu_help.1.html)

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2305 [<http://sisudoc.org/man/sisu\\_vim.7.html>](http://sisudoc.org/man/sisu_vim.7.html)

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SiSU found at: [www.jus.uio.no/sisu/](http://www.jus.uio.no/sisu/)

## Links that may be of interest at SiSU and elsewhere:

SiSU Manual

[http://www.jus.uio.no/sisu/sisu\\_manual/](http://www.jus.uio.no/sisu/sisu_manual/)

Book Samples and Markup Examples

<http://www.jus.uio.no/sisu/SiSU/2.html>

SiSU @ Wikipedia

<http://en.wikipedia.org/wiki/SiSU>

SiSU @ Freshmeat

<http://freshmeat.net/projects/sisu/>

SiSU @ Ruby Application Archive

<http://raa.ruby-lang.org/project/sisu/>

SiSU @ Debian

<http://packages.qa.debian.org/s/sisu.html>

SiSU Download

<http://www.jus.uio.no/sisu/SiSU/download.html>

SiSU Changelog

<http://www.jus.uio.no/sisu/SiSU/changelog.html>

SiSU help

[http://www.jus.uio.no/sisu/sisu\\_manual/sisu\\_help/](http://www.jus.uio.no/sisu/sisu_manual/sisu_help/)

SiSU help sources

[http://www.jus.uio.no/sisu/sisu\\_manual/sisu\\_help\\_sources/](http://www.jus.uio.no/sisu/sisu_manual/sisu_help_sources/)

SiSU home:

[www.jus.uio.no/sisu/](http://www.jus.uio.no/sisu/)