

1 attributes backends bibtex blobs  
boolean buffers builders caches **callback**  
callbacks catcodes characters chemicals  
commands containers context converters  
**coroutine** **debug** dir directives document  
documentdata environment **epdf** experiments  
figures **file** floats **font** **fontloader** fonts  
global graphics **gzip** img interactions  
interfaces **io** job **lang** languages layouts  
**lfs** libraries lmx logs lpdf **lpeg** **ltn12**  
**lua** luatex lxml **math** mathematics **md5**  
metapost **mime** moduledata modules **mplib**  
noads **node** nodes number **os** **package**  
parametersets **pdf** physics **profiler**  
regimes resolvers scripts set **socket**  
sorters statistics **status** storage streams  
**string** structures **table** **tex** **texconfig**  
**texio** **token** tokens tracers trackers  
typesetters **unicode** url utilities  
visualizers xml **zip** **zlib**

# ConTEXt MkIV

# global (alias: \_G)

|                |          |                 |          |
|----------------|----------|-----------------|----------|
| 1              | table    | getfen          | function |
| arg            | table    | getmetatable    | function |
| assert         | function | getreadfilename | function |
| attributes     | table    | global          | table    |
| backends       | table    | graphics        | table    |
| beginpage      | function | gzip            | table    |
| bibtex         | table    | img             | table    |
| blobs          | table    | inspect         | function |
| boolean        | table    | interactions    | table    |
| buffers        | table    | interfaces      | table    |
| builders       | table    | io              | table    |
| caches         | table    | ipairs          | function |
| callback       | table    | job             | table    |
| callbacks      | table    | lang            | table    |
| catcodes       | table    | languages       | table    |
| characters     | table    | layouts         | table    |
| chemicals      | table    | lfs             | table    |
| collectgarbage | function | libraries       | table    |
| commands       | table    | lmx             | table    |
| containers     | table    | load            | function |
| context        | function | loadfile        | function |
| converters     | table    | loadstring      | function |
| coroutine      | table    | logs            | table    |
| debug          | table    | lpdf            | table    |
| dimen          | function | lpeg            | table    |
| dir            | table    | ltn12           | table    |
| directives     | table    | lua             | table    |
| document       | table    | luatex          | table    |
| documentdata   | table    | lxml            | table    |
| dofile         | function | math            | table    |
| endpage        | function | mathematics     | table    |
| environment    | table    | md5             | table    |
| epdf           | table    | metapost        | table    |
| error          | function | mime            | table    |
| experiments    | table    | module          | function |
| figures        | table    | moduledata      | table    |
| file           | table    | modules         | table    |
| floats         | table    | mplib           | table    |
| font           | table    | newline         | function |
| fontloader     | table    | newproxy        | function |
| fonts          | table    | next            | function |
| gcinfo         | function | noads           | table    |

|                                   |                          |                                  |                          |
|-----------------------------------|--------------------------|----------------------------------|--------------------------|
| <a href="#">node</a>              | <a href="#">table</a>    | <a href="#">streams</a>          | <a href="#">table</a>    |
| <a href="#">nodes</a>             | <a href="#">table</a>    | <a href="#">string</a>           | <a href="#">table</a>    |
| <a href="#">number</a>            | <a href="#">table</a>    | <a href="#">stripmath</a>        | <a href="#">function</a> |
| <a href="#">os</a>                | <a href="#">table</a>    | <a href="#">structures</a>       | <a href="#">table</a>    |
| <a href="#">outputpagetree</a>    | <a href="#">function</a> | <a href="#">table</a>            | <a href="#">table</a>    |
| <a href="#">package</a>           | <a href="#">table</a>    | <a href="#">tex</a>              | <a href="#">table</a>    |
| <a href="#">pairs</a>             | <a href="#">function</a> | <a href="#">texconfig</a>        | <a href="#">table</a>    |
| <a href="#">parametersets</a>     | <a href="#">table</a>    | <a href="#">texio</a>            | <a href="#">table</a>    |
| <a href="#">pcall</a>             | <a href="#">function</a> | <a href="#">toboolean</a>        | <a href="#">function</a> |
| <a href="#">pdf</a>               | <a href="#">table</a>    | <a href="#">tocontext</a>        | <a href="#">function</a> |
| <a href="#">physics</a>           | <a href="#">table</a>    | <a href="#">token</a>            | <a href="#">table</a>    |
| <a href="#">print</a>             | <a href="#">function</a> | <a href="#">tokens</a>           | <a href="#">table</a>    |
| <a href="#">profiler</a>          | <a href="#">table</a>    | <a href="#">tonumber</a>         | <a href="#">function</a> |
| <a href="#">protect</a>           | <a href="#">function</a> | <a href="#">tostring</a>         | <a href="#">function</a> |
| <a href="#">rawequal</a>          | <a href="#">function</a> | <a href="#">trace_characters</a> | <a href="#">boolean</a>  |
| <a href="#">rawget</a>            | <a href="#">function</a> | <a href="#">traceback</a>        | <a href="#">function</a> |
| <a href="#">rawset</a>            | <a href="#">function</a> | <a href="#">tracers</a>          | <a href="#">table</a>    |
| <a href="#">regimes</a>           | <a href="#">table</a>    | <a href="#">trackers</a>         | <a href="#">table</a>    |
| <a href="#">report_characters</a> | <a href="#">function</a> | <a href="#">type</a>             | <a href="#">function</a> |
| <a href="#">require</a>           | <a href="#">function</a> | <a href="#">typesetters</a>      | <a href="#">table</a>    |
| <a href="#">resolvers</a>         | <a href="#">table</a>    | <a href="#">unicode</a>          | <a href="#">table</a>    |
| <a href="#">scripts</a>           | <a href="#">table</a>    | <a href="#">unpack</a>           | <a href="#">function</a> |
| <a href="#">select</a>            | <a href="#">function</a> | <a href="#">url</a>              | <a href="#">table</a>    |
| <a href="#">set</a>               | <a href="#">table</a>    | <a href="#">utf</a>              | <a href="#">table</a>    |
| <a href="#">setfenv</a>           | <a href="#">function</a> | <a href="#">utilities</a>        | <a href="#">table</a>    |
| <a href="#">setmetatable</a>      | <a href="#">function</a> | <a href="#">visualizers</a>      | <a href="#">table</a>    |
| <a href="#">socket</a>            | <a href="#">table</a>    | <a href="#">xml</a>              | <a href="#">table</a>    |
| <a href="#">sorters</a>           | <a href="#">table</a>    | <a href="#">xmlconvert</a>       | <a href="#">function</a> |
| <a href="#">statistics</a>        | <a href="#">table</a>    | <a href="#">xpcall</a>           | <a href="#">function</a> |
| <a href="#">status</a>            | <a href="#">table</a>    | <a href="#">zip</a>              | <a href="#">table</a>    |
| <a href="#">storage</a>           | <a href="#">table</a>    | <a href="#">zlib</a>             | <a href="#">table</a>    |

# attributes (context)

## colorintents table

N attribute  
D data  
F enable  
F handler  
F register  
D registered

## colors table

N attribute  
F cmyk  
F cmyktogray  
F cmyktorgb  
F colorcomponents  
B couple  
D data  
N default  
F defineintermediatecolor  
F definemixcolor  
F definemultitonecolor  
F defineprocesscolor  
F definesimplegray  
F definespotcolor  
F definetransparency  
F enable  
F filter  
F forcedmodel  
F forcesupport  
F formatcolor  
F formatgray  
F gray  
F graytohsv  
F handler  
F hsvtorgay  
F hsvtorgb  
F iccprofile  
F isblack  
N main  
S model  
F mpcolor  
F mpoptions  
U none  
F popset

F pushset  
F register  
D registered  
F registerspotcolor  
F rgb  
F rgbtocmyk  
F rgbtorgay  
F rgbtohsv  
N selector  
F setlist  
F setmodel  
D sets  
F spot  
F spotcolorname  
F spotcolorparent  
F spotcolorvalue  
B supported  
F transparencycomponents  
B triggering  
F usecolors  
F value  
D values  
B weightgray

## define function

## effects table

N attribute  
D data  
F enable  
F handler  
F register  
D registered  
D values

## handlers table

## list data table

## names data table

## negatives table

N attribute  
D data  
F enable  
F handler  
F register  
D registered

|                      |            |                |        |
|----------------------|------------|----------------|--------|
| numbers              | data table | B triggering   |        |
| ofnode               | function   | F value        |        |
| private              | function   | D values       |        |
| showcurrent          | function   | unsetvalue     | number |
| states               | table      | viewerlayers   | table  |
| F disabletriggering  |            | N attribute    |        |
| F enabletriggering   |            | D data         |        |
| F finalize           |            | F define       |        |
| F initialize         |            | F enable       |        |
| F process            |            | F forcesupport |        |
| F selective          |            | F handler      |        |
| F stacked            |            | B hasorder     |        |
| transparencies table |            | D listwise     |        |
| N attribute          |            | F register     |        |
| D data               |            | D registered   |        |
| F enable             |            | D scopes       |        |
| F forcesupport       |            | F setfeatures  |        |
| F handler            |            | F start        |        |
| U none               |            | F stop         |        |
| F register           |            | B supported    |        |
| D registered         |            | D values       |        |
| B supported          |            |                |        |

# backends (context)

**codeinjections** table

F synchronizecolormodel

**current** string

**defaults** table

T codeinjections

T nodeinjections

T registrations

D tables

**install** function

**nodeinjections** table

F restore

F save

F transform

**nothing** function

**pdf** table

T codeinjections

F addbookmarks

F attachmentid

F clonefield

F definefield

F definefieldset

F defineviewerlayer

F embedfile

F enabletags

F exportformdata

F finalizepage

F finishreference

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getoutputfilename

F getpreviewfigure

F insertrenderingwindow

F mergereferences

F mergeviewerlayers

F prerollreference

F presetsymbol

F presetsymbollist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

F registeredsymbol

F registerpagecloseaction

F registerpageopenaction

F registersymbol

F setfieldcalculationset

F setfigurealternative

F setfigurecolorspace

F setfiguremask

F setformat

F setformsmethod

F setpagetransition

F setupcanvas

F setupidentity

F setxmpfile

F startlayer

F stoplayer

F supportedformats

F useviewerlayer

F validfield

F validfieldcategory

F validfieldset

S comment

T nodeinjections

F addtags

F attachfile

F cmykcolor

F comment

F destination

F effect

F graycolor

F injectbitmap

F insertmovie

F insertsound

F insertswf

F insertu3d

F knockout

F negative

F overprint

F positive

F reference

F rgbcolor

F spotcolor

|                         |                     |
|-------------------------|---------------------|
| F startlayer            | T blue              |
| F stoplayer             | T gray              |
| F switchlayer           | T green             |
| F transparency          | T red               |
| F typesetfield          | T rulecolors        |
| T registrations         | T black             |
| F cmykindexcolor        | T blue              |
| F cmykspotcolor         | T gray              |
| F getspotcolorreference | T green             |
| F grayindexcolor        | T paleblue          |
| F grayspotcolor         | T palegray          |
| F rgbindexcolor         | T palegreen         |
| F rgbspotcolor          | T palered           |
| F spotcolorname         | T red               |
| F transparency          | F startslant        |
| T tables                | T stopslant         |
| T vfspecials            | registrations table |
| T black                 | tables table        |

# bibtex (context)

**authorref**            function

**authors**            table

    F concat

    F inverted

    F invertedshort

    F normal

    F normalshort

    F setsettings

    F short

**authoryearref**        function

**authoryearsref**      function

**convert**            function

**hacks**            table

    F add

    F doifalreadyplaced

    F filterall

    F flush

    F nofregistered

    F process

    F register

    F registerplaced

    F reset

    F resolve

**load**            function

**new**            function

**singularorplural**    function

**statistics**        table

    N nofbytes

    N nofdefinitions

    N nofshortcuts

**toxml**            function



## blobs (context)

|                         |                       |
|-------------------------|-----------------------|
| <code>append</code>     | <code>function</code> |
| <code>dimensions</code> | <code>function</code> |
| <code>dispose</code>    | <code>function</code> |

|                    |                       |
|--------------------|-----------------------|
| <code>new</code>   | <code>function</code> |
| <code>pack</code>  | <code>function</code> |
| <code>write</code> | <code>function</code> |

# boolean (context)

tocontext function

tonumber function

## buffers (context)

|                |          |                  |          |
|----------------|----------|------------------|----------|
| append         | function | F define         |          |
| assign         | function | F hassomecontent |          |
| collectcontent | function | F next           |          |
| erase          | function | F place          |          |
| exists         | function | F reset          |          |
| getcontent     | function | F save           |          |
| getlines       | function | raw              | function |
| parallel       | table    |                  |          |

# builders (context)

## kernel table

- F hyphenation
- F kerning
- F ligaturing
- F mlist\_to\_hlist

## paragraphs table

- T constructors
  - N attribute
  - F disable
  - F enable
  - F handler
  - T methods
    - F default
    - F oneline
  - D names
  - D numbers
  - F register
  - F set
- F kepttogether
- F registertogether
- T solutions
  - T splitters
    - F define

- F disable

- F enable

- F optimize

- F setup

- F split

- F tag

## vspacing table

- F analyze
- D categories
- F collapsevbox
- T data
  - D map
  - D skip
  - D snapmethods
- F definesnapmethod
- B fixed
- F pagehandler
- F setmap
- F setskip
- F snapbox
- F tocategories
- F tocategory
- F vboxhandler

## cache (context)

|                      |          |                      |          |
|----------------------|----------|----------------------|----------|
| ask                  | boolean  | is_writable          | function |
| base                 | string   | loadcontent          | function |
| collapsecontent      | function | loaddata             | function |
| configfiles          | function | more                 | string   |
| contentstate         | function | relocate             | boolean  |
| defaults             | table    | savecontent          | function |
| define               | function | savadata             | function |
| direct               | boolean  | setfirstwritablefile | function |
| force                | boolean  | setluanames          | function |
| getfirstreadablefile | function | tree                 | string   |
| getreadablepaths     | function | treehash             | function |
| getwritablepath      | function | usedpaths            | function |
| hashed               | function |                      |          |

## callback (basic tex)

```
find      function
list      function
register overloaded function
```

## callbacks (context)

|        |            |
|--------|------------|
| freeze | function   |
| known  | function   |
| list   | data table |
| pop    | function   |

|          |          |
|----------|----------|
| push     | function |
| register | function |
| report   | function |
| table    | function |

## catcodes (context)

`names` data table

`numbers` data table

`register` function



# characters (context)

|                 |            |                       |            |
|-----------------|------------|-----------------------|------------|
| activeoffset    | number     | is_mark               | data table |
| adobename       | function   | is_spacing            | data table |
| bidi            | data table | lcchars               | data table |
| blocks          | data table | lccode                | function   |
| casemap         | table      | lccodes               | data table |
| categories      | data table | lettered              | function   |
| category        | function   | lower                 | function   |
| categorytags    | data table | makeactive            | function   |
| combined        | data table | math                  | table      |
| contextname     | function   | mathpairs             | data table |
| data            | data table | ranges                | data table |
| decomposed      | data table | registerentities      | function   |
| define          | function   | remap_hangul_syllable | function   |
| description     | function   | remapentity           | function   |
| descriptions    | data table | setcodes              | function   |
| directions      | data table | shape                 | function   |
| encodes         | data table | shaped                | function   |
| entities        | data table | shchars               | data table |
| fallbacks       | data table | shcodes               | data table |
| filters         | data table | specialchars          | data table |
| flush           | function   | specials              | data table |
| fromnumber      | function   | subscripts            | table      |
| fschars         | data table | superscripts          | table      |
| fscodes         | data table | synonyms              | data table |
| getrange        | function   | tex                   | table      |
| graphemes       | data table |                       |            |
| hangul          | table      | D accentmapping       |            |
|                 |            | F defineaccents       |            |
|                 |            | F toutf               |            |
| F decomposed    |            | tonumber              | function   |
| F description   |            | ucchars               | data table |
| F leadconsonant |            | uccode                | function   |
| T remapped      |            | uccodes               | data table |
| initialize      | function   | unicodechar           | function   |
| is_character    | data table | upper                 | function   |
| is_command      | data table |                       |            |
| is_letter       | data table |                       |            |

## chemicals (context)

|                        |                       |                             |                       |
|------------------------|-----------------------|-----------------------------|-----------------------|
| <code>component</code> | <code>function</code> | <code>moleculeparser</code> | <code>userdata</code> |
| <code>define</code>    | <code>function</code> | <code>start</code>          | <code>function</code> |
| <code>format</code>    | <code>string</code>   | <code>stop</code>           | <code>function</code> |
| <code>inline</code>    | <code>function</code> | <code>structures</code>     | <code>number</code>   |
| <code>instance</code>  | <code>string</code>   | <code>undefine</code>       | <code>function</code> |
| <code>molecule</code>  | <code>function</code> |                             |                       |

## commands (context)

|                           |          |                        |          |
|---------------------------|----------|------------------------|----------|
| Alphabetic                | function | autonextspace          | function |
| Character                 | function | autonextstructurelevel | function |
| Characters                | function | autosetups             | function |
| MPc                       | function | autostarttext          | function |
| MPd                       | function | autostoptext           | function |
| MPh                       | function | bcolumn                | function |
| MPll                      | function | boolcase               | function |
| MPlr                      | function | character              | function |
| MPls                      | function | characters             | function |
| MPn                       | function | checkcharactersinfont  | function |
| MPp                       | function | checkcountersetup      | function |
| MPpardata                 | function | checkedconversion      | function |
| MPplus                    | function | checkedpagefloat       | function |
| MPpos                     | function | checktwopassdata       | function |
| MPposset                  | function | chineseallnumerals     | function |
| MPr                       | function | chinesecapnumerals     | function |
| MPrest                    | function | chinesenumerals        | function |
| MPrs                      | function | cleanfontname          | function |
| MPul                      | function | clonefield             | function |
| MPur                      | function | collectfloat           | function |
| MPw                       | function | collecthelp            | function |
| MPx                       | function | colorcomponents        | function |
| MPxy                      | function | consultfloat           | function |
| MPxywhd                   | function | copyfileto log         | function |
| MPy                       | function | copyposition           | function |
| Romannumerals             | function | countervalue           | function |
| abjadnodotnumerals        | function | counttwopassdata       | function |
| abjadnumerals             | function | currentcomponent       | function |
| addcounter                | function | currentdate            | function |
| addff                     | function | currentenvironment     | function |
| addfs                     | function | currentproduct         | function |
| addlinklistelement        | function | currentproject         | function |
| addtojavascriptpreamble   | function | currentregime          | function |
| addtolist                 | function | datasetvariable        | function |
| allinputpaths             | function | dayname                | function |
| alphabetic                | function | defineattribute        | function |
| analysefloatmethod        | function | definebibtexsession    | function |
| analyzelist               | function | definebreakpoint       | function |
| applytochars              | function | definebreakpoints      | function |
| applytowords              | function | definecharacterspacing | function |
| assignbuffer              | function | defineconversion       | function |
| autofinishstructurelevels | function | definecounter          | function |

|                               |          |                             |          |
|-------------------------------|----------|-----------------------------|----------|
| definedviewerlayer            | function | doifelsevisualizer          | function |
| definefield                   | function | doiffielddcategoryelse      | function |
| definefieldset                | function | doiffielddelse              | function |
| definefilefallback            | function | doiffielddsetelse           | function |
| definefilesynonym             | function | doiffiledefinedelse         | function |
| definefont_one                | function | doiffileexistelse           | function |
| definefont_two                | function | doiffirstcharelse           | function |
| definefontfeature             | function | doifinputfileelse           | function |
| defineintermediatecolor       | function | doifinsetelse               | function |
| definelinkedlist              | function | doifleapyearelse            | function |
| definemarking                 | function | doiflisthasentry            | function |
| definemultitonecolor          | function | doiflisthasnumberelse       | function |
| defineparallel                | function | doiflisthaspageelse         | function |
| defineprocesscolor            | function | doiflisthastitleelse        | function |
| definesectionlevels           | function | doiflocfileelse             | function |
| definespotcolor               | function | doifnot                     | function |
| definestructureblock          | function | doifnotcounter              | function |
| definestructureset            | function | doifoldervernionelse        | function |
| definetransparency            | function | doifoverlappingelse         | function |
| definetwopasslist             | function | doifparentfileelse          | function |
| defineviewerlayer             | function | doifposition                | function |
| defrostrandomseed             | function | doifpositionelse            | function |
| digits                        | function | doifpositiononpage          | function |
| disableregime                 | function | doifpositionsonsamepageelse | function |
| disablespellchecking          | function | doifpositionsonthispageelse | function |
| discardfromlist               | function | doifurldefinedelse          | function |
| doanalyzeframedbox            | function | doprocetypecriptfile        | function |
| doif                          | function | doreshapeframedbox          | function |
| doifblackelse                 | function | dostarttextfile             | function |
| doifcommonelse                | function | dostoptextfile              | function |
| doifcounter                   | function | ecolumn                     | function |
| doifdimenstringelse           | function | elapsedtime                 | function |
| doifdrawingblackelse          | function | enablecolor                 | function |
| doifelse                      | function | enablecolorintents          | function |
| doifelsebuffer                | function | enablefontcolorschemes      | function |
| doifelsecounter               | function | enableregime                | function |
| doifelsecurrentfonthasfeature | function | enablespellchecking         | function |
| doifelseintwopassdata         | function | enabletransparency          | function |
| doifelsemarking               | function | enhancelinkedlist           | function |
| doifelsemultipar              | function | enhancelist                 | function |
| doifelseparallel              | function | erasebuffer                 | function |
| doifelsepositionsused         | function | exportformdata              | function |
| doifelserangeonpage           | function | featureattribute            | function |
| doifelsesavedfloat            | function | featurelist                 | function |
| doifelsespaces                | function | feedback                    | function |

|                         |          |                       |          |
|-------------------------|----------|-----------------------|----------|
| fetchallmarks           | function | getreadfilename       | function |
| fetchmultipar           | function | gettexbuffer          | function |
| fetchonemark            | function | gettwopassdata        | function |
| fetchposboxes           | function | gettwopassdatalist    | function |
| fetchtwomarks           | function | geturl                | function |
| filterreference         | function | grabbuffer            | function |
| finalizebox             | function | helpaction            | function |
| findtwopassdata         | function | helpreference         | function |
| firstcountervalue       | function | hexstringtonumber     | function |
| firstinset              | function | hour                  | function |
| flushfloat              | function | hyphenatedlist        | function |
| flushpostponedblocks    | function | hyphenatedurl         | function |
| fontchar                | function | D characters          |          |
| fontcollectionclone     | function | N lefthyphenmin       |          |
| fontcollectiondefine    | function | D mapping             |          |
| fontcollectionprepare   | function | N righthyphenmin      |          |
| fontcollectionregister  | function | F setcharacters       |          |
| fontcollectionreport    | function | incrementedcounter    | function |
| fontcollectionreset     | function | insertattachment      | function |
| fontlookupgetkey        | function | insertcomment         | function |
| fontlookupgetkeyofindex | function | insertfield           | function |
| fontlookupinitialize    | function | insertrenderingwindow | function |
| fontlookupnoffound      | function | insertsoundclip       | function |
| forceendjob             | function | isleapyear            | function |
| forcequitjob            | function | language number       | function |
| format                  | function | lastcountervalue      | function |
| formatcolor             | function | lchexnumber           | function |
| formatgray              | function | lchexnumbers          | function |
| freezerandomseed        | function | leapyear              | function |
| getbuffer               | function | listlabel             | function |
| getbuffercxtlua         | function | listlocation          | function |
| getbuffermkvi           | function | listprefixednumber    | function |
| getdefaultfieldvalue    | function | listprefixedpage      | function |
| getfieldcategory        | function | listrealpage          | function |
| getfirstcharacter       | function | listsize              | function |
| getfirsttwopassdata     | function | listtitle             | function |
| getfloatvariable        | function | listuserdata          | function |
| getinternalreference    | function | loadctxpreplist       | function |
| getlasttwopassdata      | function | loadexamodes          | function |
| getmarking              | function | loadfontgoodies       | function |
| getprivateattribute     | function | loadspellchecklist    | function |
| getprivatechar          | function | loadtypescriptfile    | function |
| getrandomcounta         | function | loadvisualizer        | function |
| getrandomcountb         | function | locatefilepath        | function |
| getrandomseed           | function | locfilename           | function |

|                            |          |                            |          |
|----------------------------|----------|----------------------------|----------|
| markregionbox              | function | processbuffer              | function |
| mathrenderset              | function | processedfile              | function |
| maxitemwidth               | function | processedfiles             | function |
| minute                     | function | processfile                | function |
| molecule                   | function | processfilemany            | function |
| month                      | function | processfilenone            | function |
| monthmnm                   | function | processfileonce            | function |
| monthname                  | function | processlist                | function |
| mpcolor                    | function | pushfloat                  | function |
| mpoptions                  | function | pushitaliccorrection       | function |
| namedstructureuservariable | function | pushlist                   | function |
| namedstructurevariable     | function | rawcharacter               | function |
| nbfs                       | function | rawcountervalue            | function |
| nextcountervalue           | function | rawdate                    | function |
| nextparallel               | function | referencepagestate         | function |
| nofdays                    | function | referencerealpage          | function |
| nofitems                   | function | registerattachment         | function |
| nofstackedfloats           | function | registerbibtexentry        | function |
| noteprefixednumber         | function | registerbibtexfile         | function |
| notetitle                  | function | registerbookmark           | function |
| ntimes                     | function | registerbuttons            | function |
| number                     | function | registercolor              | function |
| octnumber                  | function | registercolorintent        | function |
| octstringtonumber          | function | registeredviewerlayer      | function |
| ordinal                    | function | registerhelp               | function |
| overloadbookmark           | function | registeritemgroup          | function |
| pagestaterealpage          | function | registermaintextcolor      | function |
| parpos                     | function | registernamespace          | function |
| pdfrotation                | function | registerpostponedblock     | function |
| percentageof               | function | registersoundclip          | function |
| placeparallel              | function | registerstructureprocessor | function |
| popfloat                   | function | registertransparency       | function |
| popitaliccorrection        | function | registerunit               | function |
| poplist                    | function | relatemarking              | function |
| pos                        | function | removemissingcharacters    | function |
| posplus                    | function | replacemissingcharacters   | function |
| posstrut                   | function | replacepospxywhd           | function |
| poswhd                     | function | resavefloat                | function |
| posxy                      | function | resetcounter               | function |
| prepareMPvariable          | function | resetfontfeature           | function |
| preparebibtexsession       | function | resetmarking               | function |
| preparedfile               | function | resetmathitalics           | function |
| presetsymbolist            | function | resetnullfont              | function |
| presettabulate             | function | resetparallel              | function |
| prevcountervalue           | function | resetstructureprocessor    | function |

|                          |          |                         |          |
|--------------------------|----------|-------------------------|----------|
| resettimer               | function | setpagestate            | function |
| restartcounter           | function | setpagestaterealpageno  | function |
| restorecounter           | function | setpagetransition       | function |
| restorecurrentattributes | function | setpos                  | function |
| romannumerals            | function | setrandomseed           | function |
| runbuffer                | function | setrealign              | function |
| savebuffer               | function | setreferencearguments   | function |
| savecounter              | function | setreferenceoperation   | function |
| savecurrentattributes    | function | setstructureblockstate  | function |
| savelistnumber           | function | settagcombination       | function |
| savelistprefixednumber   | function | settagdescription       | function |
| savelisttitle            | function | settagdescriptionsymbol | function |
| savefloat                | function | settagfigure            | function |
| saveparallel             | function | settaghighlight         | function |
| savestructureblock       | function | settagitemgroup         | function |
| savetaggedtwopassdata    | function | settagproperty          | function |
| savetwopassdata          | function | settagsorting           | function |
| second                   | function | settagsynonym           | function |
| selectstructureblock     | function | settagtablecell         | function |
| setbreakpoints           | function | settagtabulatecell      | function |
| setcharactercasing       | function | setupbookmarks          | function |
| setcharactercleaning     | function | setupcanvas             | function |
| setcharacterkerning      | function | setupcharacterspacing   | function |
| setcharacterspacing      | function | setupexport             | function |
| setcharacterstripping    | function | setupfontexpansion      | function |
| setcloseddocumentaction  | function | setupfontprotrusion     | function |
| setclosepageaction       | function | setupidentity           | function |
| setcolormodel            | function | setupitaliccorrection   | function |
| setcounter               | function | setxmpfile              | function |
| setdataset               | function | showattributes          | function |
| setdigitsmanipulation    | function | showchardata            | function |
| setfontfeature           | function | showcounter             | function |
| setfontofid              | function | showfontparameters      | function |
| setformat                | function | showhyphenatedinlist    | function |
| setformsmethod           | function | splitfilename           | function |
| setinternalreference     | function | spotcolorname           | function |
| setmarking               | function | spotcolorparent         | function |
| setmathalphabet          | function | spotcolorvalue          | function |
| setmathalternate         | function | startcolorset           | function |
| setmathattribute         | function | startcomponent          | function |
| setmathitalics           | function | startenvironment        | function |
| setmathstyle             | function | startproduct            | function |
| setopendocumentaction    | function | startproject            | function |
| setopenpageaction        | function | startregime             | function |
| setowncounter            | function | startsectionlevel       | function |

|                           |          |                            |          |
|---------------------------|----------|----------------------------|----------|
| starttag                  | function | usecolors                  | function |
| starttext                 | function | usecomponent               | function |
| startviewerlayer          | function | useenvironment             | function |
| stopcolorset              | function | usefile                    | function |
| stopcomponent             | function | usejavascriptpreamble      | function |
| stopenvironment           | function | usejavascriptscripts       | function |
| stopproduct               | function | uselibrary                 | function |
| stopproject               | function | useluafile                 | function |
| stopregime                | function | usemodules                 | function |
| stopsectionlevel          | function | usepath                    | function |
| stoptag                   | function | useproduct                 | function |
| stoptext                  | function | useproject                 | function |
| stopviewerlayer           | function | usesubpath                 | function |
| storejavascriptcode       | function | usesymbols                 | function |
| storejavascriptpreamble   | function | usetexfile                 | function |
| structureautocatcodedget  | function | useurl                     | function |
| structurecatcodedget      | function | usexmlfile                 | function |
| structuregivencatcodedget | function | usezipfile                 | function |
| structurenumber           | function | utfchar                    | function |
| structuretitle            | function | utfmathclass               | function |
| structureuservariable     | function | utfmathcommand             | function |
| structurevariable         | function | utfmathfiller              | function |
| subcountervalues          | function | utfmathstretch             | function |
| subff                     | function | vspacing                   | function |
| subfs                     | function | vspacingcollapse           | function |
| synchronizcolormodel      | function | vspacingdefine             | function |
| synchronizemarking        | function | vspacingsetamount          | function |
| taggedmathfunction        | function | vspacingsnap               | function |
| testcase                  | function | weekday                    | function |
| textime                   | function | weekdayname                | function |
| transparencycomponents    | function | widthofstring              | function |
| triggereffect             | function | writestatus                | function |
| triggernegative           | function | x_table_cleanup            | function |
| truefilename              | function | x_table_construct          | function |
| typebuffer                | function | x_table_create             | function |
| typefile                  | function | x_table_flush              | function |
| typestring                | function | x_table_init_construct     | function |
| uchexnumber               | function | x_table_init_reflow_height | function |
| uchexnumbers              | function | x_table_init_reflow_width  | function |
| unicodechar               | function | x_table_next_row           | function |
| unit                      | function | x_table_reflow_height      | function |
| updatefilenames           | function | x_table_reflow_width       | function |
| useMPLibrary              | function | x_table_set_construct      | function |
| useanyfile                | function | x_table_set_reflow_height  | function |
| usecldfilename            | function |                            |          |



`x_table_set_reflow_width`  
`year`

`function`  
`function`

## containers (context)

`cleanname` function  
`content` function  
`define` function  
`is_usable` function

`is_valid` function  
`read` function  
`usecache` boolean  
`write` function

## converters (context)

|                    |          |                   |            |
|--------------------|----------|-------------------|------------|
| Alphabetic         | function | leapyear          | function   |
| Character          | function | maxchrs           | function   |
| Characters         | function | minute            | function   |
| Romannumerals      | function | month             | function   |
| abjadnodotnumerals | function | nofdays           | function   |
| abjadnumerals      | function | number            | function   |
| alphabetic         | function | octnumber         | function   |
| character          | function | octstringtonumber | function   |
| characters         | function | ordinal           | function   |
| chineseallnumerals | function | rawcharacter      | function   |
| chinesecapnumerals | function | romannumerals     | function   |
| chinesenumerals    | function | second            | function   |
| chr                | function | sequences         | data table |
| chrs               | function | textime           | function   |
| convert            | function | toabjad           | function   |
| define             | function | tochinese         | function   |
| hexstringtonumber  | function | toroman           | function   |
| hour               | function | uchexnumber       | function   |
| isleapyear         | function | uchexnumbers      | function   |
| lchexnumber        | function | weekday           | function   |
| lchexnumbers       | function | year              | function   |

## coroutine (basic lua)

|                         |          |                      |          |
|-------------------------|----------|----------------------|----------|
| <code>coco</code>       | boolean  | <code>running</code> | function |
| <code>create</code>     | function | <code>status</code>  | function |
| <code>cstacksize</code> | function | <code>wrap</code>    | function |
| <code>resume</code>     | function | <code>yield</code>   | function |

## debug (basic lua)

|                           |          |
|---------------------------|----------|
| <code>debug</code>        | function |
| <code>getfenv</code>      | function |
| <code>gethook</code>      | function |
| <code>getinfo</code>      | function |
| <code>getlocal</code>     | function |
| <code>getmetatable</code> | function |
| <code>getregistry</code>  | function |

|                           |          |
|---------------------------|----------|
| <code>getupvalue</code>   | function |
| <code>setfenv</code>      | function |
| <code>sethook</code>      | function |
| <code>setlocal</code>     | function |
| <code>setmetatable</code> | function |
| <code>setupvalue</code>   | function |
| <code>traceback</code>    | function |

## dir (context)

|                |          |
|----------------|----------|
| collectpattern | function |
| current        | function |
| expandname     | function |
| glob           | function |
| globfiles      | function |
| globpattern    | function |

|          |          |
|----------|----------|
| ls       | function |
| makedirs | function |
| mkdirs   | function |
| pop      | function |
| push     | function |

## directives (context)

|                      |            |
|----------------------|------------|
| <code>data</code>    | data table |
| <code>disable</code> | function   |
| <code>enable</code>  | function   |
| <code>list</code>    | function   |

|                       |          |
|-----------------------|----------|
| <code>name</code>     | string   |
| <code>register</code> | function |
| <code>report</code>   | function |
| <code>show</code>     | function |

## document (context)

|                          |            |                                 |          |
|--------------------------|------------|---------------------------------|----------|
| <code>arguments</code>   | data table | <code>setargument</code>        | function |
| <code>files</code>       | table      | <code>setdefaultargument</code> | function |
| <code>getargument</code> | function   | <code>setfilename</code>        | function |
| <code>getfilename</code> | function   |                                 |          |



## environment (context)

|                     |            |                        |            |
|---------------------|------------|------------------------|------------|
| argument            | function   | luafilechunk           | function   |
| arguments           | data table | originalarguments      | data table |
| engineflags         | data table | outputfilename         | string     |
| files               | table      | ownbin                 | string     |
| filesynonyms        | data table | ownname                | string     |
| homedir             | string     | ownpath                | string     |
| initex              | boolean    | rawarguments           | data table |
| initializearguments | function   | reconstructcommandline | function   |
| inputfilebarename   | string     | setargument            | function   |
| inputfilename       | string     | splitarguments         | function   |
| inputfilesuffix     | string     | texfile                | function   |
| jobfilename         | string     | texmfos                | string     |
| jobfilesuffix       | string     | texos                  | string     |
| loadedluacode       | function   | texroot                | string     |
| loadluafile         | function   | truefilename           | function   |
| luafile             | function   |                        |            |

## epdf (extra tex)

|               |          |
|---------------|----------|
| <b>Annot</b>  | function |
| <b>Annots</b> | function |
| <b>Array</b>  | function |
| <b>Dict</b>   | function |

|                     |          |
|---------------------|----------|
| <b>Object</b>       | function |
| <b>PDFRectangle</b> | function |
| <b>open</b>         | function |
| <b>type</b>         | function |

## experiments (context)

|                      |            |
|----------------------|------------|
| <code>data</code>    | data table |
| <code>disable</code> | function   |
| <code>enable</code>  | function   |
| <code>list</code>    | function   |

|                       |          |
|-----------------------|----------|
| <code>name</code>     | string   |
| <code>register</code> | function |
| <code>report</code>   | function |
| <code>show</code>     | function |

## figures (context)

|               |            |                  |            |
|---------------|------------|------------------|------------|
| applyratio    | function   | hash             | function   |
| bases         | table      | identifiers      | data table |
| B enabled     |            | identify         | function   |
| F find        |            | include          | function   |
| T found       |            | includers        | data table |
| T list        |            | initialize       | function   |
| F locate      |            | loaded           | data table |
| F use         |            | localpaths       | data table |
| T used        |            | mergegoodies     | function   |
| bitmapimage   | function   | nofprocessed     | number     |
| boxnumber     | number     | order            | data table |
| cachepaths    | data table | paths            | data table |
| check         | function   | patterns         | data table |
| checkers      | data table | pop              | function   |
| converters    | data table | preferquality    | boolean    |
| current       | function   | programs         | data table |
| defaultdepth  | number     | push             | function   |
| defaultheight | number     | registerpattern  | function   |
| defaultsearch | boolean    | registerresource | function   |
| defaultwidth  | number     | registersuffix   | function   |
| done          | function   | resources        | data table |
| dummy         | function   | scale            | function   |
| exists        | data table | setlookups       | function   |
| exists        | function   | setpaths         | function   |
| formats       | data table | suffixes         | data table |
| found         | data table | tprint           | function   |
| get           | function   | used             | data table |

## file (basic lua)

|                                |          |                             |          |
|--------------------------------|----------|-----------------------------|----------|
| <code>addsuffix</code>         | function | <code>joinpath</code>       | function |
| <code>basename</code>          | function | <code>loadchecksum</code>   | function |
| <code>checksum</code>          | function | <code>nameonly</code>       | function |
| <code>collapsepath</code>      | function | <code>nametotable</code>    | function |
| <code>copy</code>              | function | <code>needs Updating</code> | function |
| <code>dirname</code>           | function | <code>readdata</code>       | function |
| <code>expandname</code>        | function | <code>removesuffix</code>   | function |
| <code>extname</code>           | function | <code>replacesuffix</code>  | function |
| <code>is_qualified_path</code> | function | <code>robustname</code>     | function |
| <code>is_readable</code>       | function | <code>savechecksum</code>   | function |
| <code>is_rootbased_path</code> | function | <code>savedata</code>       | function |
| <code>is_writable</code>       | function | <code>splitname</code>      | function |
| <code>isreadable</code>        | function | <code>splitpath</code>      | function |
| <code>iswritable</code>        | function | <code>strip</code>          | function |
| <code>join</code>              | function | <code>suffix</code>         | function |

## floats (context)

|                               |                       |
|-------------------------------|-----------------------|
| <code>analysemethod</code>    | <code>function</code> |
| <code>checkedpagefloat</code> | <code>function</code> |
| <code>collect</code>          | <code>function</code> |
| <code>consult</code>          | <code>function</code> |
| <code>flush</code>            | <code>function</code> |
| <code>getvariable</code>      | <code>function</code> |

|                         |                       |
|-------------------------|-----------------------|
| <code>nofstacked</code> | <code>function</code> |
| <code>pop</code>        | <code>function</code> |
| <code>push</code>       | <code>function</code> |
| <code>resave</code>     | <code>function</code> |
| <code>save</code>       | <code>function</code> |
| <code>stacked</code>    | <code>function</code> |

## font (basic tex)

|         |          |
|---------|----------|
| current | function |
| define  | function |
| each    | function |
| fonts   | table    |
| frozen  | function |
| getfont | function |

|          |          |
|----------|----------|
| id       | function |
| max      | function |
| nextid   | function |
| read_tfm | function |
| read_vf  | function |
| setfont  | function |

## fontloader (extra tex)

|                                |                       |                       |                       |
|--------------------------------|-----------------------|-----------------------|-----------------------|
| <code>apply_afmfile</code>     | <code>function</code> | <code>info</code>     | <code>function</code> |
| <code>apply_featurefile</code> | <code>function</code> | <code>open</code>     | <code>function</code> |
| <code>close</code>             | <code>function</code> | <code>to_table</code> | <code>function</code> |
| <code>fields</code>            | <code>function</code> | <code>totable</code>  | <code>function</code> |
| <code>fullinfo</code>          | <code>function</code> |                       |                       |



# fonts (context)

## analyzers table

- D initializers
- D methods
- F setstate
- B useunicodemarks

## checkers table

- F missing

## cid table

- F getmap
- F loadfile

## collections table

- F clonevector
- F define
- T definitions
- F prepare
- F process
- F registermain
- F report
- F reset
- T vectors

## constructors table

- F aftercopyingcharacters
- F applymanipulators
- F assignmathparameters
- B autocleanup
- F beforecopyingcharacters
- D cache
- F calculatyscale
- F checkedfeatures
- F checkedfilename
- F cleanuptable
- F collectprocessors
- D designsizes
- D dontembed
- F enhanceparameters
- N factor
- F finalize
- F getfeatureaction
- F hashfeatures
- F hashinstance
- T hashmethods
- F normal

- F virtual

- F initializefeatures

- T keys

- T character

- S depth

- S height

- S italic

- S width

- T description

- T boundingbox

- S depth

- S height

- S width

- T parameters

- S ascender

- S descender

- S designsize

- T expansion

- S auto

- S shrink

- S step

- S stretch

- S extendfactor

- S factor

- S hfactor

- S mathsize

- T protrusion

- S auto

- S quad

- S scaledpoints

- S scriptpercentage

- S scriptscriptpercentage

- S size

- S slantfactor

- S slantperpoint

- T spacing

- S extra

- S shrink

- S stretch

- S width

- T synonyms

- S em

|                     |                       |            |
|---------------------|-----------------------|------------|
| S ex                | current               | function   |
| S extra_space       | currentid             | function   |
| S extraspace        | definers              | table      |
| S slant             | F addlookup           |            |
| S space             | F analyze             |            |
| S space_shrink      | F applypostprocessors |            |
| S space_stretch     | F checkedmode         |            |
| S spaceshrink       | F checkedscript       |            |
| S spacestretch      | F current             |            |
| S x_height          | S defaultlookup       |            |
| S units             | F define              |            |
| S vfactor           | F getspecification    |            |
| S xheight           | F loadfont            |            |
| T properties        | F makespecification   |            |
| S autoitalicamount  | T methods             |            |
| T cidinfo           | F install             |            |
| S embedding         | D variants            |            |
| S encodingbytes     | F read                |            |
| S filename          | F register            |            |
| S finalized         | F registered          |            |
| S fontname          | F registersplit       |            |
| S format            | F resetnullfont       |            |
| S fullname          | F resolve             |            |
| S hasitalics        | T resolvers           |            |
| S hasmath           | F file                |            |
| S mathitalics       | F name                |            |
| S mode              | F spec                |            |
| S name              | definetypface         | function   |
| S noglyphnames      | encodings             | table      |
| S nostackmath       | T agl                 |            |
| S psname            | D cache               |            |
| S textitalics       | F is_known            |            |
| S virtualized       | D known               |            |
| D loadedfonts       | F load                |            |
| S namemode          | F make_unicode_vector |            |
| F newfeatures       | D math                |            |
| N privateoffset     | N version             |            |
| F readanddefine     | expansions            | data table |
| F registerfeature   | formats               | data table |
| B resolvevirtualtoo | goodies               | table      |
| F scale             | T colorschemes        |            |
| F scaled            | F coloring            |            |
| F setfactor         | T data                |            |
| F setname           | F enable              |            |
| N version           | T designsizes         |            |

- D data
- F filename
- F register
- F getcompositions
- T list
  - F compositions
  - F designsizes
  - F expansions
  - F featureset
  - F files
  - F mathematics
  - F protrusions
  - F solutions
  - F typefaces
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report
- handlers**                      **table**
  - T afm
    - B addkerns
    - B addligatures
    - B addtexligatures
    - B autoprefixed
  - D cache
  - D features
  - F load
  - F setfeatures
  - B syncspace
  - N version
- T otf
  - F addfeature
  - D cache
  - T chainhandlers
    - F normal
    - F verbose
  - F collectlookups
  - F dataset
  - S defaultbasealternate
  - S defaultnodealternate
  - D enhancers
  - D features
  - F getalternate
  - T glists

- F load
- F scriptandlanguage
- F setcontextchain
- F setdynamics
- F setfeatures
- T tables
  - D baselines
  - D features
  - D languages
  - D scripts
- N version
- T pfb
- T tfm
  - D features
  - F setfeatures
- T vf
  - T combinations
  - F combine
  - T combiner
    - D commands
  - F find
  - D helpers
  - D math
  - D predefined
  - D whatever
- hashes**                      **table**
  - D characters
  - D csnames
  - D descriptions
  - T dynamics
  - D identifiers
  - D italics
  - D marks
  - D parameters
  - T processes
  - D properties
  - D quads
  - D resources
  - T setdynamics
  - D xheights
- helpers**                      **table**
  - F addprivate
  - F dimenfactor
  - F getdigitwidth
  - F getparameters

```

F getprivatenode
F hasprivate
F nametoslot
F setdigitwidth
iterators      table
F characters
F descriptions
F glyphs
loggers       table
T category_to_placeholder
S ll
S lm
S lo
S lt
S lu
S mc
S me
S mn
S nd
S nl
S no
S pc
S pd
S pe
S pf
S pi
S po
S ps
S sc
S sk
S sm
S so
F format
F onetimemessage
F register
F reportdefinedfonts
F reportusedfeatures
mappings      table
F addtounicode
F fromunicode16
F loadfile
F loadline
F loadlumtable
F makenameparser
F reset

```

```

F tounicode16
F tounicode16sequence
names         table
S basename
B be_clever
D cache
F cleanfilename
F cleanname
F collect
F collectfiles
F collectspec
T data
B enabled
F exists
T filters
F afm
F dfont
T list
T names
F otf
T paths
F pfb
F ttc
F ttf
S fontconfigfile
F getfilename
F getlookupkey
F getlookups
F getpaths
F identify
F is_permitted
F list
F load
B loaded
F lookup
F noflookups
S osfontdirvariable
F readdata
F register
F registered
F resolve
F resolvedspecification
F resolvespec
B saved
F specification

```

|                    |                   |
|--------------------|-------------------|
| D specifications   |                   |
| F splitspec        |                   |
| N version          |                   |
| F writedata        |                   |
| <b>protrusions</b> | <b>data table</b> |
| <b>readers</b>     | <b>table</b>      |
| F afm              |                   |
| F check_lua        |                   |
| F check_tfm        |                   |
| F dfont            |                   |
| F lua              |                   |
| F opentype         |                   |
| F otf              |                   |
| F pfb              |                   |
| D sequence         |                   |
| F tfm              |                   |
| F ttc              |                   |
| F ttf              |                   |

|                   |                   |
|-------------------|-------------------|
| <b>specifiers</b> | <b>table</b>      |
| D contextmerged   |                   |
| F contextnumber   |                   |
| D contextnumbers  |                   |
| D contextsetups   |                   |
| F contexttostring |                   |
| F mergecontext    |                   |
| F presetcontext   |                   |
| F registercontext |                   |
| F showcontext     |                   |
| F splitcontext    |                   |
| D synonyms        |                   |
| D variants        |                   |
| <b>symbols</b>    | <b>table</b>      |
| F uselibrary      |                   |
| <b>tables</b>     | <b>table</b>      |
| <b>tracers</b>    | <b>table</b>      |
| <b>typefaces</b>  | <b>data table</b> |

# graphics (context)

backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

```
close function  
lines function  
open function
```

## img (basic tex)

|                       |                 |
|-----------------------|-----------------|
| <b>boxes</b>          | <b>function</b> |
| <b>checksize</b>      | <b>function</b> |
| <b>clone</b>          | <b>function</b> |
| <b>copy</b>           | <b>function</b> |
| <b>immediatewrite</b> | <b>function</b> |
| <b>keys</b>           | <b>function</b> |
| <b>new</b>            | <b>function</b> |
| <b>node</b>           | <b>function</b> |

|                  |                 |
|------------------|-----------------|
| <b>ofindex</b>   | <b>function</b> |
| <b>package</b>   | <b>function</b> |
| <b>print</b>     | <b>function</b> |
| <b>scan</b>      | <b>function</b> |
| <b>serialize</b> | <b>function</b> |
| <b>totable</b>   | <b>function</b> |
| <b>types</b>     | <b>function</b> |
| <b>write</b>     | <b>function</b> |



# interactions (context)

## attachments table

F insert  
F register

## fields table

F clone  
F define  
F defineset  
F insert

## general table

F getidentity  
F setupidentity

## help table

F collect  
F reference  
F register

## javascripts table

F addtopreamble  
F code  
D codes  
F flushpreambles  
D functions  
D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

## linkedlists table

## pages table

F setpagetransition

F setupcanvas

## references table

F setclosedocument

F setclosepage

F setopendocument

F setopenpage

## renderings table

F register

F rendering

F var

## soundclips table

F insert

F register

## interfaces (context)

|                      |            |                  |            |
|----------------------|------------|------------------|------------|
| addvalidkeys         | function   | namespaces       | table      |
| cachedsetups         | data table | F define         |            |
| cachesetup           | function   | F list           |            |
| complete             | data table | setconstant      | function   |
| constants            | data table | setelement       | function   |
| corenamespaces       | data table | setformat        | function   |
| definecommand        | function   | setmessage       | function   |
| doifelsemessage      | function   | setmessages      | function   |
| elements             | data table | settranslation   | function   |
| formats              | data table | setuserinterface | function   |
| getcheckedparameters | function   | setvalidkeys     | function   |
| getmessage           | function   | setvariable      | function   |
| hashedsetups         | data table | showmessage      | function   |
| interfacedcommand    | function   | syntax           | data table |
| interfaces           | table      | tolist           | function   |
| invalidkey           | function   | translations     | data table |
| is_command           | function   | variables        | data table |

## io (basic lua)

|                 |          |                |                     |
|-----------------|----------|----------------|---------------------|
| ask             | function | out            | table               |
| bytes           | function | F inhibit      |                     |
| characters      | function | D modes        |                     |
| checkopeners    | function | F permit       |                     |
| close           | function | output         | function            |
| exists          | function | pathseparator  | string              |
| fileseparator   | string   | popen          | overloaded function |
| finalizeopeners | function | read           | function            |
| flush           | function | readnumber     | function            |
| inp             | table    | readstring     | function            |
| F inhibit       |          | registeropener | function            |
| D modes         |          | savedata       | function            |
| F permit        |          | size           | function            |
| input           | function | stderr         | userdata            |
| lines           | function | stdin          | userdata            |
| loaddata        | function | stdout         | userdata            |
| noflines        | function | tmpfile        | function            |
| open            | function | type           | function            |
| open_ro         | function | write          | function            |

# job (context)

**comment**      **function**

**datasets**      **table**

D collected

F extend

F getdata

F setdata

D tobesaved

**disablesave** **function**

**files**      **table**

D collected

F context

B forcerun

F run

D tobesaved

**initialize** **function**

**load**      **function**

**loadother** **function**

**objects**      **table**

D collected

F doifelse

F get

F number

F page

F save

F set

D tobesaved

**pack**      **boolean**

**pagestates** **table**

D collected

F extend

F realpage

F setstate

D tobesaved

**passes**      **table**

F check

D collected

F count

F define

F find

F first

F get

F getcollected

F getdata

F getfield

F gettobesaved

F inlist

F last

F list

F save

F savetagged

D tobesaved

**positions**      **table**

F b\_col

F b\_region

F c

D collected

F column

F copy

F depth

F e\_col

F e\_region

F enhance

F extra

F get

F getreserved

F hangafter

F hangindent

F height

F hsize

F leftskip

F lowerleft

F lowerright

F markregionbox

F n

F onsamepage

F overlapping

F p

F page

F paragraph

F parindent

F position

F r

F region

F replace

F rightskip  
F set  
F setall  
F setdim  
D tobesaved  
F upperleft  
F upperright  
F width  
F x  
F xy  
F y  
**register**      function  
**save**          function

**structure**    table  
D collected  
T components  
T tobesaved  
T branches  
S name  
S type  
**variables**    table  
D checksums  
D collected  
F save  
D tobesaved  
**version**      number

## lang (basic tex)

|                                |                       |
|--------------------------------|-----------------------|
| <code>clean</code>             | <code>function</code> |
| <code>clear_hyphenation</code> | <code>function</code> |
| <code>clear_patterns</code>    | <code>function</code> |
| <code>exceptions</code>        | <code>function</code> |
| <code>hyphenate</code>         | <code>function</code> |
| <code>hyphenation</code>       | <code>function</code> |
| <code>id</code>                | <code>function</code> |

|                               |                       |
|-------------------------------|-----------------------|
| <code>new</code>              | <code>function</code> |
| <code>patterns</code>         | <code>function</code> |
| <code>postexhyphenchar</code> | <code>function</code> |
| <code>posthyphenchar</code>   | <code>function</code> |
| <code>preexhyphenchar</code>  | <code>function</code> |
| <code>prehyphenchar</code>    | <code>function</code> |

# languages (context)

|               |            |
|---------------|------------|
| associate     | function   |
| associated    | data table |
| association   | function   |
| counters      | data table |
| current       | function   |
| data          | data table |
| define        | function   |
| exceptions    | function   |
| getnumber     | function   |
| hyphenate     | function   |
| installed     | function   |
| labels        | table      |
| F define      |            |
| F split       |            |
| lefthyphenmin | function   |
| loadable      | function   |
| loadwords     | function   |
| logger        | table      |
| F report      |            |

|                |            |
|----------------|------------|
| numbers        | data table |
| posthyphenchar | function   |
| prehyphenchar  | function   |
| registered     | data table |
| righthyphenmin | function   |
| setdirty       | function   |
| synonym        | function   |
| version        | number     |
| words          | table      |
| F check        |            |
| T data         |            |
| F disable      |            |
| F enable       |            |
| T enablers     |            |
| B enables      |            |
| F found        |            |
| F load         |            |
| T methods      |            |
| N threshold    |            |

# layouts (context)

status table

F isleftpage

F lefttorrightpagection



## lfs (extra lua)

|                         |                     |                                |          |
|-------------------------|---------------------|--------------------------------|----------|
| <code>attributes</code> | function            | <code>mkdir</code>             | function |
| <code>chdir</code>      | function            | <code>readlink</code>          | function |
| <code>currentdir</code> | function            | <code>rmdir</code>             | function |
| <code>dir</code>        | function            | <code>setmode</code>           | function |
| <code>isdir</code>      | overloaded function | <code>shortname</code>         | function |
| <code>isfile</code>     | function            | <code>symlinkattributes</code> | function |
| <code>lock</code>       | function            | <code>touch</code>             | function |
| <code>lock_dir</code>   | function            | <code>unlock</code>            | function |

# libraries (context)

basiclua data table  
basictex data table  
builtin data table

extralua data table  
extratex data table  
globals data table

## lmx (context)

|               |          |               |            |
|---------------|----------|---------------|------------|
| convert       | function | pv            | function   |
| escape        | function | reset         | function   |
| get           | function | result        | function   |
| htmfile       | function | set           | function   |
| include       | function | show          | function   |
| lmxfile       | function | showdebuginfo | function   |
| loadedfile    | function | showerror     | function   |
| make          | function | tv            | function   |
| new           | function | type          | function   |
| overloaderror | function | urlescape     | function   |
| popupfile     | function | variable      | function   |
| print         | function | variables     | data table |

## logs (context)

|                 |          |                   |          |
|-----------------|----------|-------------------|----------|
| application     | function | setmessenger      | function |
| categories      | function | setprogram        | function |
| direct          | function | settarget         | function |
| disable         | function | settranslations   | function |
| enable          | function | show              | function |
| extendbanner    | function | show_close        | function |
| flush           | function | show_load         | function |
| help            | function | show_open         | function |
| messenger       | function | simple            | function |
| new             | function | simpleline        | function |
| newline         | function | simplelines       | function |
| poptarget       | function | start_page_number | function |
| pushtarget      | function | status            | function |
| report          | function | stop_page_number  | function |
| report_job_stat | function | subdirect         | function |
| reportbanner    | function | subreport         | function |
| reporter        | function | system            | function |
| reportline      | function | texerrormessage   | function |
| reportlines     | function | writer            | function |
| setformats      | function |                   |          |

# lpdf (context)

|                        |            |                           |          |
|------------------------|------------|---------------------------|----------|
| action                 | function   | graycode                  | function |
| adddocumentcolorspace  | function   | id                        | function |
| adddocumenttextgstate  | function   | injectxmpinfo             | function |
| adddocumentpattern     | function   | insertxmpinfo             | function |
| adddocumentshade       | function   | javascript                | function |
| addtocatalog           | function   | launch                    | function |
| addtoinfo              | function   | layerreference            | function |
| addtonames             | function   | limited                   | function |
| addtopageattributes    | function   | linearshade               | function |
| addtopageresources     | function   | link                      | function |
| addtopagesattributes   | function   | null                      | function |
| addxmpinfo             | function   | number                    | function |
| array                  | function   | pagedestination           | function |
| boolean                | function   | pagereference             | function |
| checkedkey             | function   | pdfcolor                  | function |
| checkedvalue           | function   | pdftimestamp              | function |
| circularshade          | function   | protectresources          | boolean  |
| cmykcode               | function   | reference                 | function |
| collectedresources     | function   | registerannotation        | function |
| color                  | function   | registerdocumentfinalizer | function |
| colorspace             | function   | registerpagefinalizer     | function |
| colorspaceconstants    | table      | reserveannotation         | function |
| T all                  |            | reserveobject             | function |
| T cmyk                 |            | rgbcode                   | function |
| T gray                 |            | rotationcm                | function |
| T rgb                  |            | shareobject               | function |
| colorspec              | function   | shareobjectreference      | function |
| colorvalue             | function   | spotcode                  | function |
| colorvalues            | function   | stream                    | function |
| constant               | function   | string                    | function |
| delayedobject          | function   | timestamp                 | function |
| dictionary             | function   | toeight                   | function |
| epdf                   | table      | tosixteen                 | function |
| F load                 |            | transparency              | function |
| finalizedocument       | function   | transparencycode          | function |
| finalizepage           | function   | transparencygroups        | table    |
| finishtransparencycode | function   | B none                    |          |
| flushobject            | function   | transparencyvalue         | function |
| flushstreamfileobject  | function   | unicode                   | function |
| flushstreamobject      | function   | verbose                   | function |
| formats                | data table |                           |          |

## lpeg (basic lua)

|                     |          |                              |            |
|---------------------|----------|------------------------------|------------|
| <b>C</b>            | function | <b>endstripper</b>           | function   |
| <b>Carg</b>         | function | <b>firstofsplit</b>          | function   |
| <b>Cb</b>           | function | <b>frontstripper</b>         | function   |
| <b>Cc</b>           | function | <b>is_lpeg</b>               | function   |
| <b>Cf</b>           | function | <b>keeper</b>                | function   |
| <b>Cg</b>           | function | <b>locale</b>                | function   |
| <b>Cmt</b>          | function | <b>match</b>                 | function   |
| <b>Cp</b>           | function | <b>oneof</b>                 | function   |
| <b>Cs</b>           | function | <b>patterns</b>              | data table |
| <b>Ct</b>           | function | <b>print</b>                 | function   |
| <b>P</b>            | function | <b>replacer</b>              | function   |
| <b>R</b>            | function | <b>secondofsplit</b>         | function   |
| <b>S</b>            | function | <b>span</b>                  | function   |
| <b>UP</b>           | function | <b>split</b>                 | function   |
| <b>UR</b>           | function | <b>splitat</b>               | function   |
| <b>US</b>           | function | <b>splitter</b>              | function   |
| <b>V</b>            | function | <b>stripper</b>              | function   |
| <b>anywhere</b>     | function | <b>tsplitat</b>              | function   |
| <b>append</b>       | function | <b>tsplitter</b>             | function   |
| <b>balancer</b>     | function | <b>type</b>                  | function   |
| <b>checkedsplit</b> | function | <b>utfchartabletopattern</b> | function   |
| <b>count</b>        | function | <b>version</b>               | function   |
| <b>counter</b>      | function |                              |            |

# ltn12 (extra lua)

**BLOCKSIZE** number

**filter** table

F chain

F cycle

**pump** table

F all

F step

**sink** table

F chain

F error

F file

F null

F simplify

F table

**source** table

F cat

F chain

F empty

F error

F file

F rewind

F simplify

F string

## lua (basic tex)

|                       |                   |                          |                   |
|-----------------------|-------------------|--------------------------|-------------------|
| <b>bytecode</b>       | <b>table</b>      | <b>messages</b>          | <b>data table</b> |
| <b>bytedata</b>       | <b>data table</b> | <b>name</b>              | <b>table</b>      |
| <b>bytdone</b>        | <b>table</b>      | <b>numbers</b>           | <b>data table</b> |
| <b>collectgarbage</b> | <b>function</b>   | <b>registercode</b>      | <b>function</b>   |
| <b>delay</b>          | <b>function</b>   | <b>registeredcodes</b>   | <b>function</b>   |
| <b>finalize</b>       | <b>function</b>   | <b>registerfinalizer</b> | <b>function</b>   |
| <b>firstbytecode</b>  | <b>number</b>     | <b>registername</b>      | <b>function</b>   |
| <b>flush</b>          | <b>function</b>   | <b>setbytecode</b>       | <b>function</b>   |
| <b>flushdelayed</b>   | <b>function</b>   | <b>setluaname</b>        | <b>function</b>   |
| <b>getbytecode</b>    | <b>function</b>   | <b>startupfile</b>       | <b>string</b>     |
| <b>getluaname</b>     | <b>function</b>   | <b>version</b>           | <b>string</b>     |
| <b>lastbytecode</b>   | <b>number</b>     |                          |                   |



## luatex (context)

|                                   |          |                          |          |
|-----------------------------------|----------|--------------------------|----------|
| <code>cleanuptempfiles</code>     | function | <code>showjobstat</code> | function |
| <code>registerstartactions</code> | function | <code>showtexstat</code> | function |
| <code>registerstopactions</code>  | function | <code>starttime</code>   | number   |
| <code>registertempfile</code>     | function |                          |          |

## lxml (context)

|                 |                     |                  |          |
|-----------------|---------------------|------------------|----------|
| addindex        | function            | getindex         | function |
| all             | function            | id               | function |
| applyfunction   | function            | idsplitter       | userdata |
| att             | function            | include          | function |
| attribute       | function            | index            | function |
| chainattribute  | function            | info             | function |
| checkindex      | function            | inlineverbatim   | function |
| collected       | function            | installsetup     | function |
| command         | function            | last             | function |
| concat          | function            | load             | function |
| concatrange     | function            | loadbuffer       | function |
| content         | function            | loaddata         | function |
| context         | function            | loaded           | table    |
| convert         | function            | loadregistered   | function |
| count           | function            | main             | function |
| delete          | function            | match            | function |
| direct          | function            | name             | function |
| directives      | table               | namespace        | function |
| F after         |                     | nonspace         | function |
| F before        |                     | pos              | function |
| F handle        |                     | position         | function |
| F load          |                     | raw              | function |
| F setup         |                     | rawroot          | function |
| displayverbatim | function            | register         | function |
| doif            | function            | registerentity   | function |
| doifelse        | function            | removesetup      | function |
| doifelsetext    | function            | resetcdata       | function |
| doifnot         | function            | resetsetups      | function |
| doifnottext     | function            | resolvedentity   | function |
| doiftext        | function            | root             | function |
| element         | function            | serialize        | function |
| elements        | function            | setaction        | function |
| entities        | data table          | setcdata         | function |
| filter          | function            | setcommandtonone | function |
| filterlist      | function            | setcommandtotext | function |
| first           | function            | setsetup         | function |
| flush           | function            | snippet          | function |
| flushlinewise   | function            | sorters          | table    |
| flushsetups     | function            | F add            |          |
| flushspacewise  | function            | F compare        |          |
| get_id          | <del>function</del> | F flush          |          |
| getid           | function            | F reset          |          |

|                       |          |                            |            |
|-----------------------|----------|----------------------------|------------|
| <code>F show</code>   |          | <code>tag</code>           | function   |
| <code>F sort</code>   |          | <code>text</code>          | function   |
| <code>splitid</code>  | function | <code>tofile</code>        | function   |
| <code>startraw</code> | function | <code>toparameters</code>  | function   |
| <code>stopraw</code>  | function | <code>toverbatim</code>    | function   |
| <code>store</code>    | function | <code>verbatim</code>      | function   |
| <code>strip</code>    | function | <code>withindex</code>     | function   |
| <code>stripped</code> | function | <code>xmltexhandler</code> | data table |

## math (basic lua)

|                    |                       |                             |                       |
|--------------------|-----------------------|-----------------------------|-----------------------|
| <code>abs</code>   | <code>function</code> | <code>max</code>            | <code>function</code> |
| <code>acos</code>  | <code>function</code> | <code>min</code>            | <code>function</code> |
| <code>asin</code>  | <code>function</code> | <code>mod</code>            | <code>function</code> |
| <code>atan</code>  | <code>function</code> | <code>modf</code>           | <code>function</code> |
| <code>atan2</code> | <code>function</code> | <code>odd</code>            | <code>function</code> |
| <code>ceil</code>  | <code>function</code> | <code>pi</code>             | <code>number</code>   |
| <code>cos</code>   | <code>function</code> | <code>pow</code>            | <code>function</code> |
| <code>cosd</code>  | <code>function</code> | <code>rad</code>            | <code>function</code> |
| <code>cosh</code>  | <code>function</code> | <code>random</code>         | <code>function</code> |
| <code>deg</code>   | <code>function</code> | <code>randomseed</code>     | <code>function</code> |
| <code>div</code>   | <code>function</code> | <code>round</code>          | <code>function</code> |
| <code>even</code>  | <code>function</code> | <code>setrandomseedi</code> | <code>function</code> |
| <code>exp</code>   | <code>function</code> | <code>sin</code>            | <code>function</code> |
| <code>floor</code> | <code>function</code> | <code>sind</code>           | <code>function</code> |
| <code>fmod</code>  | <code>function</code> | <code>sinh</code>           | <code>function</code> |
| <code>frexp</code> | <code>function</code> | <code>sqrt</code>           | <code>function</code> |
| <code>huge</code>  | <code>number</code>   | <code>tan</code>            | <code>function</code> |
| <code>ldexp</code> | <code>function</code> | <code>tand</code>           | <code>function</code> |
| <code>log</code>   | <code>function</code> | <code>tanh</code>           | <code>function</code> |
| <code>log10</code> | <code>function</code> |                             |                       |

# mathematics (context)

|                               |            |                               |          |
|-------------------------------|------------|-------------------------------|----------|
| <b>addfallbacks</b>           | function   | <b>remapalphabets</b>         | function |
| <b>alphabets</b>              | data table | <b>renderings</b>             | table    |
| <b>big</b>                    | function   | D mappings                    |          |
| <b>boldmap</b>                | table      | D numbers                     |          |
| <b>categories</b>             | table      | D sets                        |          |
| D functions                   |            | <b>renderset</b>              | function |
| <b>checkaccentbaseheight</b>  | function   | <b>resetitalics</b>           | function |
| <b>checkprivateparameters</b> | function   | <b>scaleparameters</b>        | function |
| <b>classes</b>                | data table | <b>setalternate</b>           | function |
| <b>codes</b>                  | data table | <b>setitalics</b>             | function |
| <b>define</b>                 | function   | <b>syncboth</b>               | function |
| <b>dimensions</b>             | function   | <b>syncname</b>               | function |
| <b>extrabase</b>              | number     | <b>syncstyle</b>              | function |
| <b>extras</b>                 | table      | <b>toname</b>                 | function |
| F add                         |            | <b>tostyle</b>                | function |
| F copy                        |            | <b>tweakaftercopyingfont</b>  | function |
| <b>families</b>               | data table | <b>tweakbeforecopyingfont</b> | function |
| <b>gaps</b>                   | table      | <b>tweaks</b>                 | table    |
| <b>getboth</b>                | function   | F fixbadprime                 |          |
| <b>getstyle</b>               | function   | <b>utfmathclass</b>           | function |
| <b>initializeparameters</b>   | function   | <b>utfmathcommand</b>         | function |
| <b>makefont</b>               | function   | <b>utfmathfiller</b>          | function |
| <b>overloadparameters</b>     | function   | <b>utfmathstretch</b>         | function |
| <b>privatebase</b>            | number     |                               |          |

## md5 (extra lua)

HEX      function

crypt    function

dec      function

decrypt   function

exor     function

hex      function

sum      function

sumhexa   function

# metapost (context)

|                           |          |                       |          |
|---------------------------|----------|-----------------------|----------|
| <b>analyzeplugins</b>     | function | <b>makempy</b>        | table    |
| <b>checkformat</b>        | function | N nofconverted        |          |
| <b>checktexts</b>         | function | F processgraphics     |          |
| <b>colorinitializer</b>   | function | <b>metafun</b>        | table    |
| <b>convert</b>            | function | F interpolate         |          |
| <b>defaultformat</b>      | string   | F topath              |          |
| <b>directrun</b>          | function | <b>method</b>         | number   |
| <b>edefsxsy</b>           | function | <b>mptopdf</b>        | table    |
| <b>escaped</b>            | function | F convertmpstopdf     |          |
| <b>exectime</b>           | table    | N nofconverted        |          |
| <b>filterclippath</b>     | function | <b>multipass</b>      | boolean  |
| <b>finder</b>             | function | <b>n</b>              | number   |
| <b>flush</b>              | function | <b>optimize</b>       | boolean  |
| <b>flushers</b>           | table    | <b>parse</b>          | function |
| T pdf                     |          | <b>pdfliterals</b>    | function |
| F comment                 |          | <b>pluginactions</b>  | function |
| F flushfigure             |          | <b>process</b>        | function |
| F startfigure             |          | <b>processplugins</b> | function |
| F stopfigure              |          | <b>reducetogray</b>   | boolean  |
| F textfigure              |          | <b>reporterror</b>    | function |
| <b>flushliteral</b>       | function | <b>reset</b>          | function |
| <b>flushnormalpath</b>    | function | <b>resetlastlog</b>   | function |
| <b>flushreset</b>         | function | <b>resetplugins</b>   | function |
| <b>format</b>             | function | <b>resettex texts</b> | function |
| <b>formatnumber</b>       | function | <b>setoutercolor</b>  | function |
| <b>getclippath</b>        | function | <b>settext</b>        | function |
| <b>gettext</b>            | function | <b>showlog</b>        | boolean  |
| <b>graphic</b>            | function | <b>tex</b>            | table    |
| <b>graphic_base_pass</b>  | function | F get                 |          |
| <b>graphic_extra_pass</b> | function | F reset               |          |
| <b>intermediate</b>       | table    | F set                 |          |
| T actions                 |          | <b>texerrors</b>      | boolean  |
| F makempy                 |          | <b>text textsdata</b> | function |
| B needed                  |          | <b>theclippath</b>    | function |
| <b>lastlog</b>            | string   | <b>totable</b>        | function |
| <b>load</b>               | function | <b>unload</b>         | function |

## mime (extra lua)

**b64**            function  
**decode**        function  
**decodet**      table  
    F base64  
    F quoted-printable  
**dot**            function  
**encode**        function  
**encodet**      table  
    F base64  
    F quoted-printable  
**eol**            function  
**normalize** function

**qp**            function  
**qpwrp**        function  
**stuff**        function  
**unb64**        function  
**unqp**        function  
**wrap**        function  
**wrapt**        table  
    F base64  
    F default  
    F quoted-printable  
    F text  
**wrp**           function



## mplib (extra tex)

**fields**    **function**  
**new**       **function**

**pen\_info** **function**  
**version**  **function**

# noads (context)

## handlers table

F check  
F collapse  
F families  
F italics  
F relocate  
F render  
F resize  
F respace  
F tags  
F unscript

## F variants

**process** function

**processors** table

T collapse  
F mlist\_to\_hlist  
T relocate  
T render  
T resize  
T respace  
T unscript

## node (basic tex)

|                 |          |                      |          |
|-----------------|----------|----------------------|----------|
| copy            | function | ligaturing           | function |
| copy_list       | function | mlist_to_hlist       | function |
| count           | function | new                  | function |
| current_attr    | function | next                 | function |
| dimensions      | function | prev                 | function |
| do_ligature_n   | function | protect_glyphs       | function |
| family_font     | function | protrusion_skippable | function |
| fields          | function | remove               | function |
| first_character | function | set_attribute        | function |
| first_glyph     | function | slide                | function |
| flush_list      | function | subtype              | function |
| free            | function | tail                 | function |
| has_attribute   | function | traverse             | function |
| has_field       | function | traverse_id          | function |
| hpack           | function | type                 | function |
| id              | function | types                | function |
| insert_after    | function | unprotect_glyphs     | function |
| insert_before   | function | unset_attribute      | function |
| is_node         | function | usedlist             | function |
| kerning         | function | vpack                | function |
| last_node       | function | whatsits             | function |
| length          | function | write                | function |

# nodes (context)

|                        |            |                         |            |
|------------------------|------------|-------------------------|------------|
| after                  | function   | F stripping             |            |
| aligned                | function   | F unprotectglyphs       |            |
| astable                | function   | has_attribute           | function   |
| before                 | function   | idtoString              | function   |
| builders               | table      | ignorablefields         | data table |
| F buildpage_filter     |            | injections              | table      |
| F vpack_filter         |            | F handler               |            |
| codes                  | data table | F setcursive            |            |
| concat                 | function   | F setkern               |            |
| count                  | function   | F setmark               |            |
| delete                 | function   | F setpair               |            |
| destinations           | table      | installattributehandler | function   |
| N attribute            |            | is_display_math         | function   |
| T done                 |            | is_mirrored             | data table |
| F handler              |            | is_rotated              | data table |
| T stack                |            | kerncodes               | data table |
| dimensionfields        | data table | leftmarginwidth         | function   |
| dir_is_pop             | data table | lines                   | table      |
| dir_negation           | data table | T boxed                 |            |
| fasthpack              | function   | F register              |            |
| fields                 | function   | F setup                 |            |
| fillcodes              | data table | F stage_one             |            |
| firstcharacter         | function   | F stage_two             |            |
| firstcharinbox         | function   | F stage_zero            |            |
| firstglyph             | function   | D data                  |            |
| getattribute           | function   | F finalize              |            |
| gluecodes              | data table | F number                |            |
| glyphcodes             | data table | N scratchbox            |            |
| glyphdir_is_equal      | data table | link                    | function   |
| glyphdir_is_opposite   | data table | list                    | function   |
| glyphdir_is_orthogonal | data table | listablefields          | data table |
| handlers               | table      | listcodes               | data table |
| F accessibility        |            | listtoutf               | function   |
| F backgrounds          |            | load                    | function   |
| F characters           |            | locate                  | function   |
| F checkforleaks        |            | mathcodes               | data table |
| F checkglyphs          |            | noadcodes               | data table |
| F cleanuppape          |            | nodecodes               | data table |
| F export               |            | packlist                | function   |
| F finalize             |            | pardir_is_equal         | data table |
| F migrate              |            | pardir_is_opposite      | data table |
| F protectglyphs        |            | pardir_is_parallel      | data table |

|                     |            |                         |            |
|---------------------|------------|-------------------------|------------|
| partextdir_is_equal | data table | B enabled               |            |
| penaltycodes        | data table | F hpack_filter          |            |
| pool                | table      | F post_linebreak_filter |            |
| F baselineskip      |            | F pre_linebreak_filter  |            |
| F cleanup           |            | F tracer                |            |
| F disc              |            | processwords            | function   |
| F fontkern          |            | reference               | function   |
| F glue              |            | references              | table      |
| F gluespec          |            | N attribute             |            |
| F glyph             |            | T done                  |            |
| F kern              |            | F handler               |            |
| F latelua           |            | T stack                 |            |
| F leftmarginkern    |            | remove                  | function   |
| F leftskip          |            | repackhlist             | function   |
| F lineskip          |            | replace                 | function   |
| F noad              |            | report                  | function   |
| F pdfannotation     |            | rightmarginwidth        | function   |
| F pdfdestination    |            | rules                   | table      |
| F pdfdirect         |            | D data                  |            |
| F pdfliteral        |            | F define                |            |
| F pdfrestore        |            | F enable                |            |
| F pdfsave           |            | F handler               |            |
| F pdfsetmatrix      |            | save                    | function   |
| F penalty           |            | serialize               | function   |
| F register          |            | serializebox            | function   |
| F rightmarginkern   |            | setattribute            | function   |
| F rightskip         |            | setattributes           | function   |
| F rule              |            | setunsetattributes      | function   |
| F shrink            |            | shifts                  | table      |
| F special           |            | D data                  |            |
| F stretch           |            | F define                |            |
| F temp              |            | F enable                |            |
| F textdir           |            | F handler               |            |
| F usage             |            | show                    | function   |
| T userids           |            | showboxes               | function   |
| N margins.inline    |            | showcodes               | function   |
| N splitters.one     |            | showlist                | function   |
| N splitters.two     |            | showsimplelist          | function   |
| F userlist          |            | skipcodes               | data table |
| F usernumber        |            | somepenalty             | function   |
| F userstring        |            | somespace               | function   |
| F usertokens        |            | stripping               | table      |
| F zeroglue          |            | T glyphs                |            |
| print               | function   | F set                   |            |
| processors          | table      | striprange              | function   |

|                     |              |                 |            |
|---------------------|--------------|-----------------|------------|
| <b>tasks</b>        | <b>table</b> | F start         |            |
| F actions           |              | F string        |            |
| F appendaction      |              | F unicodes      |            |
| F disableaction     |              | T colors        |            |
| F disablegroup      |              | F reset         |            |
| F enableaction      |              | F set           |            |
| F enablegroup       |              | F fontchar      |            |
| F freeze            |              | F start         |            |
| F freezegroup       |              | T steppers      |            |
| F new               |              | F check         |            |
| F prependaction     |              | F codes         |            |
| F removeaction      |              | F features      |            |
| F restart           |              | F glyphs        |            |
| F showactions       |              | F message       |            |
| F table             |              | F messages      |            |
| textdir_is_equal    | data table   | F nofsteps      |            |
| textdir_is_is       | data table   | F register      |            |
| textdir_is_opposite | data table   | F reset         |            |
| textdir_is_parallel | data table   | F start         |            |
| tonodes             | function     | F stop          |            |
| tosequence          | function     | F stop          |            |
| totable             | function     | unsetattribute  | function   |
| toutf               | function     | unsetattributes | function   |
| tracers             | table        | visualizebox    | function   |
| T characters        |              | whatcodes       | data table |
| F collect           |              | whatsitcodes    | data table |
| F equal             |              | writable_spec   | function   |
| F indices           |              |                 |            |

## number (context)

|               |            |                |          |
|---------------|------------|----------------|----------|
|               | function   |                |          |
| basepoints    | function   | tociceros      | function |
| bit           | function   | todidots       | function |
| bits          | function   | todimen        | function |
| clearbit      | function   | toevenhex      | function |
| dimenfactors  | data table | toinches       | function |
| hasbit        | function   | tomillimeters  | function |
| maxdimen      | number     | tonewciceros   | function |
| nopts         | function   | tonewdidots    | function |
| percent       | function   | tonumberf      | function |
| points        | function   | tonumberg      | function |
| pts           | function   | topicas        | function |
| setbit        | function   | topoints       | function |
| tobasepoints  | function   | toscaled       | function |
| tobitstring   | function   | toscaledpoints | function |
| tocentimeters | function   | toset          | function |

## os (basic lua)

|                           |                     |                        |                     |
|---------------------------|---------------------|------------------------|---------------------|
| <code>__getenv__</code>   | function            | <code>resolvers</code> | table               |
| <code>__setenv__</code>   | function            | <code>resultof</code>  | function            |
| <code>binsuffix</code>    | string              | <code>runtime</code>   | function            |
| <code>binsuffixes</code>  | table               | <code>selfdir</code>   | string              |
| <code>clock</code>        | function            | <code>setenv</code>    | overloaded function |
| <code>date</code>         | function            | <code>setlocale</code> | overloaded function |
| <code>difftime</code>     | function            | <code>sleep</code>     | function            |
| <code>env</code>          | data table          | <code>spawn</code>     | overloaded function |
| <code>exec</code>         | overloaded function | <code>time</code>      | function            |
| <code>execute</code>      | overloaded function | <code>times</code>     | function            |
| <code>exit</code>         | function            | <code>timezone</code>  | function            |
| <code>getenv</code>       | overloaded function | <code>tmpdir</code>    | function            |
| <code>gettimeofday</code> | function            | <code>tmpname</code>   | function            |
| <code>launch</code>       | function            | <code>type</code>      | string              |
| <code>libsuffix</code>    | string              | <code>uname</code>     | function            |
| <code>name</code>         | string              | <code>uuid</code>      | function            |
| <code>platform</code>     | string              | <code>where</code>     | function            |
| <code>remove</code>       | function            | <code>which</code>     | function            |
| <code>rename</code>       | function            |                        |                     |



## package (basic lua)

|                              |          |                               |          |
|------------------------------|----------|-------------------------------|----------|
| <code>appendtolibpath</code> | function | <code>loaders</code>          | table    |
| <code>clibpaths</code>       | function | <code>loadlib</code>          | function |
| <code>config</code>          | string   | <code>path</code>             | string   |
| <code>cpath</code>           | string   | <code>preload</code>          | table    |
| <code>libpaths</code>        | function | <code>prependtolibpath</code> | function |
| <code>loaded</code>          | table    | <code>seeall</code>           | function |

## pdf (basic tex)

|                             |                       |
|-----------------------------|-----------------------|
| <code>immediateobj</code>   | <code>function</code> |
| <code>mapfile</code>        | <code>function</code> |
| <code>mapline</code>        | <code>function</code> |
| <code>maxobjnum</code>      | <code>function</code> |
| <code>obj</code>            | <code>function</code> |
| <code>objtype</code>        | <code>function</code> |
| <code>pageattributes</code> | <code>string</code>   |
| <code>pageref</code>        | <code>function</code> |

|                              |                       |
|------------------------------|-----------------------|
| <code>pageresources</code>   | <code>string</code>   |
| <code>pagesattributes</code> | <code>string</code>   |
| <code>pdfmapfile</code>      | <code>function</code> |
| <code>pdfmapline</code>      | <code>function</code> |
| <code>print</code>           | <code>function</code> |
| <code>refobj</code>          | <code>function</code> |
| <code>registerannot</code>   | <code>function</code> |
| <code>reserveobj</code>      | <code>function</code> |

# physics (context)

|                 |                 |
|-----------------|-----------------|
| units table     | S <sup>-1</sup> |
| T tables        | S <sup>-2</sup> |
| T shortcuts     | S <sup>-3</sup> |
| T operators     | S <sup>-1</sup> |
| S *             | S <sup>-2</sup> |
| S .             | S <sup>-3</sup> |
| S /             | T units         |
| S :             | S A             |
| T prefixes      | S B             |
| S E             | S Hz            |
| S G             | S W             |
| S M             | S b             |
| S P             | S g             |
| S T             | S h             |
| S Y             | S hz            |
| S Z             | S l             |
| S a             | S lx            |
| S c             | S m             |
| S d             | S n             |
| S da            | S s             |
| S f             | S t             |
| S h             | S v             |
| S k             | S °C            |
| S m             | S               |
| S n             | T units         |
| S p             | T operators     |
| S u             | S OutOf         |
| S y             | S Per           |
| S z             | S Solidus       |
| T suffixes      | S Times         |
| S +1            | T packaged      |
| S +2            | S Micron        |
| S +3            | S mmHg          |
| S -1            | T prefixes      |
| S -2            | S Atto          |
| S -3            | S Centi         |
| S 1             | S Deca          |
| S 2             | S Deci          |
| S 3             | S Exa           |
| S <sup>+1</sup> | S Exbi          |
| S <sup>+2</sup> | S Femto         |
| S <sup>+3</sup> | S Gibi          |

|             |                      |
|-------------|----------------------|
| S Giga      | S Astronomical Unit  |
| S Hecto     | S Atm                |
| S Kibi      | S Atmosphere         |
| S Kilo      | S Atomic Mass Unit   |
| S Mebi      | S Bar                |
| S Mega      | S Barn               |
| S Micro     | S Baud               |
| S Milli     | S Bel                |
| S Nano      | S Bequerel           |
| S Pebi      | S Bit                |
| S Peta      | S Byte               |
| S Pico      | S Cal                |
| S Root      | S Calorie            |
| S Tebi      | S Candela            |
| S Tera      | S Celsius            |
| S Yobi      | S Coulomb            |
| S Yocto     | S Dalton             |
| S Yotta     | S Day                |
| S Zebi      | S Degree Celsius     |
| S Zepto     | S Degree Fahrenheit  |
| S Zetta     | S Degrees Celsius    |
| T suffixes  | S Degrees Fahrenheit |
| S Cubic     | S Dyne               |
| S ICubic    | S Electron Volt      |
| S ILinear   | S Erg                |
| S ISquare   | S Erlang             |
| S Inverse   | S Fahrenheit         |
| S Linear    | S Farad              |
| S Square    | S Foot               |
| T symbols   | S Gal                |
| S %         | S Gauss              |
| S ArcMinute | S Gon                |
| S ArcSecond | S Grad               |
| S Degree    | S Gram               |
| S Degrees   | S Gray               |
| S Percent   | S Hectare            |
| S Per mille | S Henry              |
| S Promille  | S Hertz              |
| S °         | S Hg                 |
| S           | S Hour               |
| S           | S Inch               |
| T units     | S Joule              |
| S AMU       | S Katal              |
| S Ampere    | S Kelvin             |
| S Angstrom  | S Knot               |

S Liter  
S Litre  
S Lumen  
S Lux  
S Maxwell  
S Meter  
S Metre  
S Metric Ton  
S Minute  
S Mol  
S Mole  
S Nautical Mile  
S Neper  
S Newton  
S Oersted  
S Ohm  
S Pascal

S Phot  
S Poise  
S Radian  
S Rev  
S Revolution  
S Second  
S Siemens  
S Sievert  
S Steradian  
S Stilb  
S Stokes  
S Tesla  
S Tonne  
S Volt  
S Watt  
S Weber  
S eV

## profiler (extra lua)

`pause function`  
`resume function`

`start function`  
`stop function`

## regimes (context)

|                      |          |
|----------------------|----------|
| <code>disable</code> | function |
| <code>enable</code>  | function |
| <code>pop</code>     | function |
| <code>process</code> | function |

|                        |          |
|------------------------|----------|
| <code>push</code>      | function |
| <code>toregime</code>  | function |
| <code>translate</code> | function |

# resolvers (context)

|                              |            |                         |            |
|------------------------------|------------|-------------------------|------------|
| allprefixes                  | function   | findpath                | function   |
| appendhash                   | function   | findtexfile             | function   |
| automount                    | function   | findwildcardfile        | function   |
| automounted                  | table      | findwildcardfiles       | function   |
| booleanvariable              | function   | formatofsuffix          | function   |
| cacheversion                 | string     | formatofvariable        | function   |
| checkedvariable              | function   | formats                 | data table |
| cleanpath                    | function   | generators              | data table |
| cleanpathlist                | function   | getenv                  | function   |
| concatinators                | data table | getownpath              | function   |
| configbanner                 | string     | getreadfilename         | function   |
| criticalvars                 | data table | hashers                 | data table |
| dangerous                    | data table | homedir                 | string     |
| datastate                    | function   | installinputfilehandler | function   |
| defaultsuffixes              | table      | installinputlinehandler | function   |
| dowithfilesandreport         | function   | instance                | table      |
| dowithfilesintree            | function   | D data                  |            |
| dowithpath                   | function   | B diskcache             |            |
| dowithvariable               | function   | D environment           |            |
| env                          | function   | D expansions            |            |
| executers                    | table      | D fakepaths             |            |
| F check                      |            | D files                 |            |
| F execute                    |            | B force_suffixes        |            |
| F finalize                   |            | D found                 |            |
| F register                   |            | D foundintrees          |            |
| expandbraces                 | function   | D hashed                |            |
| expandedpathfromlist         | function   | D hashes                |            |
| expandedpathlist             | function   | D lists                 |            |
| expandedpathlistfromvariable | function   | B loadererror           |            |
| expandpath                   | function   | D order                 |            |
| expandpathfromvariable       | function   | B remember              |            |
| expansion                    | function   | B renewcache            |            |
| extendtexmfvariable          | function   | B renewtree             |            |
| find_file                    | function   | B savelists             |            |
| find_files                   | function   | D setups                |            |
| findbinfile                  | function   | D specification         |            |
| findctxfile                  | function   | D variables             |            |
| finders                      | data table | jobs                    | table      |
| findfile                     | function   | F currentcomponent      |            |
| findfiles                    | function   | F currentenvironment    |            |
| findgivenfile                | function   | F currentproduct        |            |
| findgivenfiles               | function   | F currentproject        |            |



|                    |            |                          |            |
|--------------------|------------|--------------------------|------------|
| F justacomponent   |            | renew                    | function   |
| D processors       |            | repath                   | function   |
| F productcomponent |            | reset                    | function   |
| F usefile          |            | resetextrapath           | function   |
| joinpath           | function   | resetresolve             | function   |
| load               | function   | resolve                  | function   |
| loadbinfile        | function   | savers                   | data table |
| loaders            | data table | scandata                 | function   |
| loadlualib         | function   | scanfiles                | function   |
| loadtexfile        | function   | schemes                  | table      |
| loadtime           | function   | T cleaners               |            |
| locateformat       | function   | F md5                    |            |
| locators           | data table | F none                   |            |
| luacnfname         | string     | F strip                  |            |
| luacnfspec         | string     | F cleanname              |            |
| luacnfstate        | string     | F install                |            |
| macros             | table      | N threshold              |            |
| F convertfile      |            | setenv                   | function   |
| F decodecomment    |            | setinstance              | function   |
| F enablecomment    |            | settrace                 | function   |
| F encodecomment    |            | showpath                 | function   |
| F preprocessed     |            | simplescanfiles          | function   |
| F processmkvi      |            | splitconfigurationpath   | function   |
| F version          |            | splitexpansions          | function   |
| maxreadlevel       | number     | splitmethod              | function   |
| methodhandler      | function   | splitpath                | function   |
| newinstance        | function   | suffixes                 | data table |
| openbinfile        | function   | suffixmap                | data table |
| openers            | data table | suffixofformat           | function   |
| openfile           | function   | texdatablob              | function   |
| opentexfile        | function   | unexpandedpath           | function   |
| ownpath            | string     | unexpandedpathlist       | function   |
| prefixes           | data table | unresolve                | function   |
| prependhash        | function   | updaterelations          | function   |
| registerextrapath  | function   | updatescript             | function   |
| registerfile       | function   | usezipfile               | function   |
| registerfilehash   | function   | validatedpath            | function   |
| registerintrees    | function   | variable                 | function   |
| registermethod     | function   | variableofformat         | function   |
| registerzipfile    | function   | variableofformatorsuffix | function   |
| relations          | data table | wildcardpattern          | function   |

## scripts (context)

**categorytonumber** data table

**colors** data table

**defaults** table

N inter\_char\_half\_shrink\_factor

N inter\_char\_half\_stretch\_factor

N inter\_char\_hangul\_penalty

N inter\_char\_quarter\_shrink\_factor

N inter\_char\_quarter\_stretch\_factor

N inter\_char\_shrink\_factor

N inter\_char\_stretch\_factor

**handlers**

data table

**hash**

table

**installdataset**

function

**installmethod**

function

**numbertocategory**

data table

**numbertodataset**

data table

**preprocess**

function

**reset**

function

**set**

function

# set (context)

`contains` function  
`create` function  
`tolist` function

`tonumber` function  
`totable` function

# socket (extra lua)

**BLOCKSIZE** number  
**\_DEBUG** boolean  
**bind** function  
**choose** function  
**connect** function  
**dns** table  
    F gethostname  
    F tohostname  
    F toip  
**ftp** table  
    S PASSWORD  
    N PORT  
    N TIMEOUT  
    S USER  
    F command  
    F get  
    F open  
    F put  
**gettime** function  
**http** table  
    N PORT  
    N TIMEOUT  
    S USERAGENT  
    F open  
    F request  
**newtry** function  
**protect** function  
**select** function  
**sink** function  
**sinkt** table  
    F close-when-done  
    F default  
    F http-chunked

    F keep-open  
**skip** function  
**sleep** function  
**smtp** table  
    S DOMAIN  
    N PORT  
    S SERVER  
    N TIMEOUT  
    S ZONE  
    F message  
    F open  
    F send  
**source** function  
**sourcet** table  
    F by-length  
    F default  
    F http-chunked  
    F until-closed  
**tcp** function  
**tp** table  
    N TIMEOUT  
    F connect  
**try** function  
**udp** function  
**url** table  
    F absolute  
    F build  
    F build\_path  
    F escape  
    F parse  
    F parse\_path  
    F unescape

## sorters (context)

**comparers**      table

    F basic

**constants**      table

    S defaultdigits

    S defaultlanguage

    S defaultmethod

    N digitsmaximum

    N digitsoffset

    N ignoredoffset

    N replacementoffset

**definitions**    data table

**firstofsplit**    function

**setlanguage**    function

**sort**            function

**splitters**      table

    F utf

**strip**           function

**tracers**        data table

**update**          function

## statistics (context)

|                |          |               |          |
|----------------|----------|---------------|----------|
| checkfmtstatus | function | resettiming   | function |
| elapsedindeed  | function | runtime       | function |
| elapsedseconds | function | savefmtstatus | function |
| elapsedtime    | function | show          | function |
| enable         | boolean  | showjobstat   | function |
| formatruntime  | function | starttiming   | function |
| hastiming      | function | stoptiming    | function |
| memused        | function | threshold     | number   |
| register       | function | timed         | function |
| reportstorage  | function |               |          |

status (basic tex)

list function

## storage (context)

|            |          |
|------------|----------|
| allocate   | function |
| data       | table    |
| evaluators | table    |
| mark       | function |
| marked     | function |
| max        | number   |

|            |            |
|------------|------------|
| min        | number     |
| nofmodules | number     |
| noftables  | number     |
| register   | function   |
| shared     | data table |



## streams (context)

|                         |          |
|-------------------------|----------|
| <code>collect</code>    | function |
| <code>disable</code>    | function |
| <code>enable</code>     | function |
| <code>flush</code>      | function |
| <code>initialize</code> | function |

|                          |          |
|--------------------------|----------|
| <code>push</code>        | function |
| <code>start</code>       | function |
| <code>stop</code>        | function |
| <code>synchronize</code> | function |

## string (basic lua)

|                       |                 |                      |                 |
|-----------------------|-----------------|----------------------|-----------------|
| <b>byte</b>           | <b>function</b> | <b>match</b>         | <b>function</b> |
| <b>bytepairs</b>      | <b>function</b> | <b>quote</b>         | <b>function</b> |
| <b>bytes</b>          | <b>function</b> | <b>quoted</b>        | <b>function</b> |
| <b>char</b>           | <b>function</b> | <b>rep</b>           | <b>function</b> |
| <b>characterpairs</b> | <b>function</b> | <b>reverse</b>       | <b>function</b> |
| <b>characters</b>     | <b>function</b> | <b>split</b>         | <b>function</b> |
| <b>checkedsplit</b>   | <b>function</b> | <b>splitlines</b>    | <b>function</b> |
| <b>count</b>          | <b>function</b> | <b>splitup</b>       | <b>function</b> |
| <b>dump</b>           | <b>function</b> | <b>strip</b>         | <b>function</b> |
| <b>escapedpattern</b> | <b>function</b> | <b>sub</b>           | <b>function</b> |
| <b>explode</b>        | <b>function</b> | <b>toboolean</b>     | <b>function</b> |
| <b>find</b>           | <b>function</b> | <b>tocontext</b>     | <b>function</b> |
| <b>format</b>         | <b>function</b> | <b>todimen</b>       | <b>function</b> |
| <b>gfind</b>          | <b>function</b> | <b>topattern</b>     | <b>function</b> |
| <b>gmatch</b>         | <b>function</b> | <b>toutf</b>         | <b>function</b> |
| <b>gsub</b>           | <b>function</b> | <b>unquote</b>       | <b>function</b> |
| <b>is_boolean</b>     | <b>function</b> | <b>unquoted</b>      | <b>function</b> |
| <b>is_empty</b>       | <b>function</b> | <b>upper</b>         | <b>function</b> |
| <b>len</b>            | <b>function</b> | <b>utfcharacters</b> | <b>function</b> |
| <b>limit</b>          | <b>function</b> | <b>utfsplitlines</b> | <b>function</b> |
| <b>lower</b>          | <b>function</b> | <b>utfvalues</b>     | <b>function</b> |

# structures (context)

|                       |                 |                             |
|-----------------------|-----------------|-----------------------------|
| <b>atlocation</b>     | <b>function</b> | <b>F setoffset</b>          |
| <b>blocks</b>         | <b>table</b>    | <b>F setown</b>             |
| <b>D collected</b>    |                 | <b>F setstate</b>           |
| <b>F define</b>       |                 | <b>F setvalue</b>           |
| <b>F print</b>        |                 | <b>T specials</b>           |
| <b>F save</b>         |                 | <b>F userpage</b>           |
| <b>F select</b>       |                 | <b>F subs</b>               |
| <b>F setstate</b>     |                 | <b>D tobесaved</b>          |
| <b>D states</b>       |                 | <b>F value</b>              |
| <b>D tobесaved</b>    |                 | <b>currentsectionnumber</b> |
| <b>bookmarks</b>      | <b>table</b>    | <b>function</b>             |
| <b>F finalize</b>     |                 | <b>descriptions</b>         |
| <b>F flatten</b>      |                 | <b>table</b>                |
| <b>S method</b>       |                 | <b>documents</b>            |
| <b>F overload</b>     |                 | <b>table</b>                |
| <b>F place</b>        |                 | <b>T data</b>               |
| <b>F register</b>     |                 | <b>S block</b>              |
| <b>F setup</b>        |                 | <b>T blocks</b>             |
| <b>counters</b>       | <b>table</b>    | <b>T checkers</b>           |
| <b>F add</b>          |                 | <b>N depth</b>              |
| <b>F analyze</b>      |                 | <b>T forced</b>             |
| <b>F check</b>        |                 | <b>T numbers</b>            |
| <b>D collected</b>    |                 | <b>T ownnumbers</b>         |
| <b>F compact</b>      |                 | <b>T status</b>             |
| <b>F converted</b>    |                 | <b>F initialize</b>         |
| <b>F currentvalue</b> |                 | <b>F preset</b>             |
| <b>D data</b>         |                 | <b>F reset</b>              |
| <b>F define</b>       |                 | <b>floats</b>               |
| <b>F first</b>        |                 | <b>table</b>                |
| <b>F get</b>          |                 | <b>formulas</b>             |
| <b>F last</b>         |                 | <b>table</b>                |
| <b>F next</b>         |                 | <b>F current</b>            |
| <b>F prev</b>         |                 | <b>F simplify</b>           |
| <b>F previous</b>     |                 | <b>F store</b>              |
| <b>F raw</b>          |                 | <b>helpers</b>              |
| <b>F record</b>       |                 | <b>table</b>                |
| <b>F reset</b>        |                 | <b>F analyze</b>            |
| <b>F restart</b>      |                 | <b>F formulanumber</b>      |
| <b>F restore</b>      |                 | <b>F merged</b>             |
| <b>F save</b>         |                 | <b>F page</b>               |
| <b>F set</b>          |                 | <b>F prefix</b>             |
| <b>F setlevel</b>     |                 | <b>F prefixlastpage</b>     |
|                       |                 | <b>F prefixpage</b>         |
|                       |                 | <b>F simplify</b>           |
|                       |                 | <b>F title</b>              |
|                       |                 | <b>F touserdata</b>         |
|                       |                 | <b>itemgroups</b>           |
|                       |                 | <b>table</b>                |
|                       |                 | <b>F maxwidth</b>           |

|                   |              |
|-------------------|--------------|
| F nofitems        |              |
| F register        |              |
| <b>lists</b>      | <b>table</b> |
| F addto           |              |
| F analyze         |              |
| D cached          |              |
| D collected       |              |
| F discard         |              |
| F enhance         |              |
| T enhancers       |              |
| F filter          |              |
| F filtercollected |              |
| F formulainumber  |              |
| F hasnumberdata   |              |
| F haspagedata     |              |
| F hastitledata    |              |
| D internals       |              |
| F iscached        |              |
| F label           |              |
| F location        |              |
| F number          |              |
| D ordered         |              |
| F page            |              |
| F popnesting      |              |
| F prefix          |              |
| F prefixednumber  |              |
| F prefixedpage    |              |
| F process         |              |
| D pushed          |              |
| F pushnesting     |              |
| F realpage        |              |
| T result          |              |
| F sectionnumber   |              |
| F size            |              |
| F title           |              |
| D tobesaved       |              |
| F userdata        |              |
| F uservalue       |              |
| <b>marks</b>      | <b>table</b> |
| D data            |              |
| F define          |              |
| F exists          |              |
| F fetch           |              |
| F fetchallmarks   |              |
| F fetched         |              |

|                            |              |
|----------------------------|--------------|
| F fetchonemark             |              |
| F fetchtwomarks            |              |
| F get                      |              |
| F number                   |              |
| F relate                   |              |
| F reset                    |              |
| F set                      |              |
| F show                     |              |
| F synchronize              |              |
| F title                    |              |
| T tracers                  |              |
| F showtable                |              |
| <b>notes</b>               | <b>table</b> |
| F checkpagechange          |              |
| F define                   |              |
| F deltapage                |              |
| F doifcontent              |              |
| F doifonsamepageasprevious |              |
| F flush                    |              |
| F flushpostponed           |              |
| F get                      |              |
| F getn                     |              |
| F getnumberpage            |              |
| F getstate                 |              |
| F getsymbolpage            |              |
| F internal                 |              |
| F internalid               |              |
| F listindex                |              |
| F ordered                  |              |
| F postpone                 |              |
| F resetpostponed           |              |
| F restore                  |              |
| F save                     |              |
| F setstate                 |              |
| F setsymbolpage            |              |
| D states                   |              |
| F store                    |              |
| <b>pages</b>               | <b>table</b> |
| F analyze                  |              |
| D collected                |              |
| F is_odd                   |              |
| F number                   |              |
| F save                     |              |
| D tobesaved                |              |
| <b>references</b>          | <b>table</b> |

|                        |                                    |
|------------------------|------------------------------------|
| F analyze              | T components                       |
| F checkedfile          | T productreferences                |
| F checkedfileorurl     | T programs                         |
| F checkedprogram       | T data                             |
| F checkedrealpage      | F define                           |
| F checkedurl           | F get                              |
| D collected            | F realpageofpage                   |
| U componentsplitter    | U referencesplitter                |
| F currentmetadata      | D referred                         |
| F currentorder         | F referredpage                     |
| D currentset           | F registerfinalizer                |
| F define               | F registerinitializer              |
| D defined              | F registerpage                     |
| D derived              | F reportproblems                   |
| F doifelse             | F reset                            |
| F enableinteraction    | T resolvers                        |
| F enhance              | F reference                        |
| D executers            | F section                          |
| F expandcurrent        | D runners                          |
| F export               | F set                              |
| T files                | F setandgetattribute               |
| T data                 | F setcomponent                     |
| F define               | F setinnermethod                   |
| F get                  | F setinternalreference             |
| F filter               | F setnextinternal                  |
| D filters              | F setnextorder                     |
| F from                 | D specials                         |
| F get                  | F splitcomponent                   |
| F getcurrentmetadata   | F splitprefix                      |
| F getcurrentprefixspec | F splitreference                   |
| F getinnermethod       | T testrunners                      |
| F getinternalreference | F inner                            |
| D handlers             | F special                          |
| F identify             | F special operation                |
| F import               | F special operation with arguments |
| F inject               | T testspecials                     |
| F injectcurrentset     | F deltapage                        |
| D internals            | F i                                |
| F load                 | F internal                         |
| F loadpresets          | F page                             |
| F mark                 | F realpage                         |
| D pages                | F section                          |
| U prefixsplitter       | F userpage                         |
| T productdata          | D tobereferred                     |
| T componentreferences  | D tobесaved                        |

|                  |                   |              |
|------------------|-------------------|--------------|
| T                | urls              |              |
| T                | data              |              |
| F                | define            |              |
| F                | get               |              |
| F                | whatfrom          |              |
| <b>registers</b> |                   | <b>table</b> |
| F                | analyze           |              |
| F                | analyzed          |              |
| D                | collected         |              |
| F                | compare           |              |
| F                | define            |              |
| F                | enhance           |              |
| F                | extend            |              |
| F                | filter            |              |
| F                | filtercollected   |              |
| F                | finalize          |              |
| F                | flush             |              |
| F                | prepare           |              |
| F                | process           |              |
| F                | sort              |              |
| F                | store             |              |
| D                | tobesaved         |              |
| F                | unique            |              |
| F                | userdata          |              |
| <b>sections</b>  |                   | <b>table</b> |
| F                | autodepth         |              |
| F                | cct               |              |
| T                | collected         |              |
| F                | current           |              |
| F                | currentblock      |              |
| F                | currentid         |              |
| F                | currentlevel      |              |
| F                | depthnumber       |              |
| F                | finddata          |              |
| F                | findnumber        |              |
| F                | fullnumber        |              |
| F                | getcurrentlevel   |              |
| F                | getlevel          |              |
| F                | getnumber         |              |
| F                | internalreference |              |
| D                | levelmap          |              |
| D                | levels            |              |
| F                | load              |              |
| F                | matchingtilldepth |              |
| F                | numberatdepth     |              |

|                 |                   |              |
|-----------------|-------------------|--------------|
| F               | numbers           |              |
| F               | popblock          |              |
| F               | prefixedconverted |              |
| F               | pushblock         |              |
| F               | register          |              |
| D               | registered        |              |
| F               | reportstructure   |              |
| F               | save              |              |
| F               | set               |              |
| F               | setblock          |              |
| F               | setchecker        |              |
| F               | setlevel          |              |
| F               | setnumber         |              |
| F               | somelevel         |              |
| F               | structuredata     |              |
| F               | title             |              |
| D               | tobesaved         |              |
| F               | typesetnumber     |              |
| F               | userdata          |              |
| B               | verbose           |              |
| F               | way               |              |
| <b>sets</b>     |                   | <b>table</b> |
| F               | define            |              |
| F               | get               |              |
| F               | getall            |              |
| D               | setlist           |              |
| <b>specials</b> |                   | <b>table</b> |
| D               | collected         |              |
| F               | retrieve          |              |
| F               | store             |              |
| D               | tobesaved         |              |
| <b>synonyms</b> |                   | <b>table</b> |
| F               | analyzed          |              |
| D               | collected         |              |
| F               | compare           |              |
| F               | define            |              |
| F               | filter            |              |
| F               | finalize          |              |
| F               | flush             |              |
| F               | meaning           |              |
| F               | prepare           |              |
| F               | process           |              |
| F               | register          |              |
| F               | registerused      |              |
| F               | sort              |              |

|                    |                        |
|--------------------|------------------------|
| F synonym          | F setcombination       |
| D tobesaved        | F setdescription       |
| tags               | F setdescriptionsymbol |
| T data             | F setfigure            |
| F detailedtag      | F sethighlight         |
| F getid            | F setitemgroup         |
| F handler          | F setproperty          |
| D labels           | F setsorting           |
| F last             | F setsynonym           |
| F lastinchain      | F settablecell         |
| T metadata         | F settabulatecell      |
| D properties       | F start                |
| F registerdata     | F stop                 |
| F registermetadata | D taglist              |
| F restart          | T userdata             |
| F setattributehash |                        |

## table (basic lua)

|                 |          |                      |          |
|-----------------|----------|----------------------|----------|
| append          | function | print                | function |
| are_equal       | function | remove               | function |
| compact         | function | reversed             | function |
| concat          | function | sequenced            | function |
| contains        | function | serialize            | function |
| copy            | function | setmetatablecall     | function |
| count           | function | setmetatableindex    | function |
| derive          | function | setmetatablekey      | function |
| fastcopy        | function | setmetatablenewindex | function |
| flattened       | function | setn                 | function |
| foreach         | function | sort                 | function |
| foreachi        | function | sortedhash           | function |
| fromhash        | function | sortedhashkeys       | function |
| getmetatablekey | function | sortedkeys           | function |
| getn            | function | sortedpairs          | function |
| has_one_entry   | function | strip                | function |
| identical       | function | sub                  | function |
| imerge          | function | swapped              | function |
| merged          | function | tocontext            | function |
| insert          | function | tofile               | function |
| is_empty        | function | tohandle             | function |
| keys            | function | tohash               | function |
| loweredkeys     | function | toxml                | function |
| maxn            | function | unique               | function |
| merge           | function | unnest               | function |
| merged          | function | unpack               | function |
| prepend         | function |                      |          |



## tex (basic tex)

|                  |            |               |            |
|------------------|------------|---------------|------------|
| attribute        | table      | linebreak     | function   |
| badness          | function   | lists         | table      |
| box              | table      | luacatcodes   | number     |
| catcode          | table      | mathcode      | table      |
| conditionals     | data table | modes         | data table |
| constants        | data table | nest          | table      |
| count            | table      | nilcatcodes   | number     |
| ctxcatcodes      | number     | notcatcodes   | number     |
| definefont       | function   | number        | function   |
| delcode          | table      | pdffontname   | function   |
| dimen            | table      | pdffontobjnum | function   |
| enableprimitives | function   | pdffontsize   | function   |
| error            | function   | pdfpageref    | function   |
| extraprimitives  | function   | pdfxformname  | function   |
| finish           | function   | primitives    | function   |
| fontidentifier   | function   | print         | function   |
| fontname         | function   | printlist     | function   |
| fprint           | function   | prtcacodes    | number     |
| get              | function   | romannumeral  | function   |
| getattribute     | function   | round         | function   |
| getbox           | function   | run           | function   |
| getcatcode       | function   | scale         | function   |
| getcount         | function   | set           | function   |
| getdelcode       | function   | setattribute  | function   |
| getdimen         | function   | setbox        | function   |
| getlccode        | function   | setcatcode    | function   |
| getlist          | function   | setcount      | function   |
| getmath          | function   | setdelcode    | function   |
| getmathcode      | function   | setdimen      | function   |
| getnest          | function   | setfalse      | function   |
| getsfcode        | function   | setlccode     | function   |
| getskip          | function   | setlist       | function   |
| gettoks          | function   | setmath       | function   |
| getuccode        | function   | setmathcode   | function   |
| hashtokens       | function   | setnest       | function   |
| ifs              | data table | setsfcode     | function   |
| inicatcodes      | number     | setskip       | function   |
| iscount          | function   | settoks       | function   |
| isdimen          | function   | settrue       | function   |
| isskip           | function   | setuccode     | function   |
| istoken          | function   | sfcode        | table      |
| lccode           | table      | shipout       | function   |

|                    |            |                       |          |
|--------------------|------------|-----------------------|----------|
| <b>skip</b>        | table      | <b>tprint</b>         | function |
| <b>sp</b>          | function   | <b>txtcatcodes</b>    | number   |
| <b>sprint</b>      | function   | <b>type</b>           | function |
| <b>systemmodes</b> | data table | <b>uccode</b>         | table    |
| <b>texcatcodes</b> | number     | <b>uniformdeviate</b> | function |
| <b>toks</b>        | table      | <b>uprint</b>         | function |
| <b>tpacatcodes</b> | number     | <b>vrbcacodes</b>     | number   |
| <b>tpbcacodes</b>  | number     | <b>write</b>          | function |

## texconfig (basic tex)

|                              |          |                             |        |
|------------------------------|----------|-----------------------------|--------|
| <code>error_line</code>      | number   | <code>max_print_line</code> | number |
| <code>expand_depth</code>    | number   | <code>max_strings</code>    | number |
| <code>formatname</code>      | string   | <code>nest_size</code>      | number |
| <code>half_error_line</code> | number   | <code>param_size</code>     | number |
| <code>hash_extra</code>      | number   | <code>save_size</code>      | number |
| <code>init</code>            | function | <code>shell_escape</code>   | string |
| <code>kpse_init</code>       | boolean  | <code>stack_size</code>     | number |
| <code>max_in_open</code>     | number   |                             |        |

## texio (basic tex)

```
write    function  
write_nl function
```

## token (basic tex)

|                           |          |                            |          |
|---------------------------|----------|----------------------------|----------|
| <code>command_id</code>   | function | <code>get_next</code>      | function |
| <code>command_name</code> | function | <code>is_activechar</code> | function |
| <code>create</code>       | function | <code>is_expandable</code> | function |
| <code>csname_id</code>    | function | <code>is_protected</code>  | function |
| <code>csname_name</code>  | function | <code>lookup</code>        | function |
| <code>expand</code>       | function |                            |          |

## tokens (context)

bgroup        table  
collectors table  
  T data  
  F defaultwords  
  F dowithwords  
  F flush  
  F handle  
  F install  
  F register  
  T registered  
  T remapper  
    F convert  
    T data  
    F store  
  F show

  T show\_methods  
    F a  
    F b  
    F c  
  F showtoken  
  F test  
  F trace  
egroup        table  
hbox          table  
letter        function  
letters       function  
other         function  
vbox          table  
vtop          table

## tracers (context)

|           |          |
|-----------|----------|
| count     | function |
| cs        | function |
| dimen     | function |
| knownlist | function |
| lists     | table    |

T context

T internals

T scratch

|           |          |
|-----------|----------|
| name      | function |
| primitive | function |
| prnterror | function |
| showlines | function |
| strings   | table    |

S undefined

|      |          |
|------|----------|
| toks | function |
|------|----------|

|      |          |
|------|----------|
| type | function |
|------|----------|

## trackers (context)

|                             |            |                       |          |
|-----------------------------|------------|-----------------------|----------|
| <code>data</code>           | data table | <code>name</code>     | string   |
| <code>disable</code>        | function   | <code>register</code> | function |
| <code>dumphashtofile</code> | function   | <code>report</code>   | function |
| <code>enable</code>         | function   | <code>savehash</code> | function |
| <code>list</code>           | function   | <code>show</code>     | function |



# typesetters (context)

## **alignments** table

F handler

F set

## **breakpoints** table

N attribute

F define

F handler

D mapping

T methods

T numbers

F set

F setreplacement

## **cases** table

T actions

F handler

F register

F set

## **characters** table

F handler

## **cleaners** table

F handler

F set

## **digits** table

T actions

N attribute

F handler

F set

## **directions** table

F handler

F process

F set

## **hpack** function

## **italics** table

F forcevariant

F handler

F reset

F set

## **kerns** table

D factors

F handler

B keepligature

B keptogether

D mapping

F set

## **margins** table

F finalhandler

F globalhandler

F ha

F localhandler

F save

## **paragraphs** table

N attribute

T droppers

F freeze

F set

F handler

F set

## **processors** table

F apply

F register

F reset

F split

F startapply

F stopapply

F stripped

F tostring

## **spacings** table

N attribute

F define

F handler

D mapping

T numbers

T frenchpunctuation

T characters

S name

N number

F reset

F set

F setup

## **tonodes** function

## **vpack** function

## **xtables** table

F cleanup

F construct

|                            |                     |
|----------------------------|---------------------|
| F create                   | F reflow_height     |
| F flush                    | F reflow_width      |
| F initialize_construct     | F set_construct     |
| F initialize_reflow_height | F set_reflow_height |
| F initialize_reflow_width  | F set_reflow_width  |
| F next_row                 |                     |

# unicode (extra lua)

|                 |                 |                  |                 |
|-----------------|-----------------|------------------|-----------------|
| <b>ascii</b>    | <b>table</b>    |                  |                 |
| F byte          |                 | F gmatch         |                 |
| F char          |                 | F gsub           |                 |
| F dump          |                 | F len            |                 |
| F find          |                 | F lower          |                 |
| F format        |                 | F match          |                 |
| F gfind         |                 | F rep            |                 |
| F gmatch        |                 | F reverse        |                 |
| F gsub          |                 | F sub            |                 |
| F len           |                 | F upper          |                 |
| F lower         |                 | <b>ustring</b>   | <b>function</b> |
| F match         |                 | utf16_to_utf8    | <b>function</b> |
| F rep           |                 | utf16_to_utf8_be | <b>function</b> |
| F reverse       |                 | utf16_to_utf8_le | <b>function</b> |
| F sub           |                 | utf32_to_utf8    | <b>function</b> |
| F upper         |                 | utf32_to_utf8_be | <b>function</b> |
| <b>filetype</b> | <b>function</b> | utf32_to_utf8_le | <b>function</b> |
| <b>grapheme</b> | <b>table</b>    | <b>utf8</b>      | <b>table</b>    |
| F byte          |                 | F byte           |                 |
| F char          |                 | F char           |                 |
| F dump          |                 | F dump           |                 |
| F find          |                 | F find           |                 |
| F format        |                 | F format         |                 |
| F gfind         |                 | F gfind          |                 |
| F gmatch        |                 | F gmatch         |                 |
| F gsub          |                 | F gsub           |                 |
| F len           |                 | F len            |                 |
| F lower         |                 | F lower          |                 |
| F match         |                 | F match          |                 |
| F rep           |                 | F rep            |                 |
| F reverse       |                 | F reverse        |                 |
| F sub           |                 | F string         |                 |
| F upper         |                 | F sub            |                 |
| <b>latin1</b>   | <b>table</b>    | F toentities     |                 |
| F byte          |                 | F upper          |                 |
| F char          |                 | utf8_to_utf16    | <b>function</b> |
| F dump          |                 | utf8_to_utf8     | <b>function</b> |
| F find          |                 | utffcodes        | <b>function</b> |
| F format        |                 | utfname          | <b>table</b>    |
| F gfind         |                 | utftype          | <b>function</b> |
|                 |                 | xstring          | <b>function</b> |

## url (context)

`addscheme` function  
`construct` function  
`filename` function  
`hashed` function

`hasscheme` function  
`query` function  
`split` function

# utilities (context)

## debugger table

F disable  
F enable  
F savestats  
F showstats

## formatters table

F formatcolumns  
F list  
F stripzeros

## garbagecollector table

F check  
N criterium  
B enabled

## lua table

F compile

## packers table

F hashed  
F new  
F pack  
F simplehashed  
F strip  
F unpack  
N version

## parsers table

F add\_settings\_to\_array  
F arguments\_to\_table  
F array\_to\_string  
F getparameters  
F hash\_to\_string  
F listitem  
F make\_settings\_to\_hash\_pattern  
T patterns  
  U settings\_to\_array  
  U settings\_to\_hash\_a  
  U settings\_to\_hash\_b  
  U settings\_to\_hash\_c  
F settings\_to\_array  
F settings\_to\_hash  
F settings\_to\_hash\_strict  
F settings\_to\_hash\_tolerant  
F settings\_to\_set  
F simple\_hash\_to\_string

## report function sequencers table

F appendaction  
F appendgroup  
F compile  
F disableaction  
F disablegroup  
F enableaction  
F enablegroup  
D functions  
F localize  
F new  
F nodeprocessor  
F prependaction  
F prependgroup  
F removeaction  
F setkind  
F tostring

## setters table

F disable  
F enable  
F initialize  
F list  
F new  
F register  
F reset  
F show

## storage table

F allocate  
F checked  
F mark  
F marked  
F setinitializer  
F sparse

## strings table

F collapseCrLf  
F newrepeater  
F nice  
F striplong  
F tabtospace

## tables table

F accesstable

F definetable  
F encapsulate  
F insertaftervalue

F insertbeforevalue  
F migratetable  
F removevalue

## visualizers (context)

|                       |            |                 |            |
|-----------------------|------------|-----------------|------------|
| escapepatterns        | data table | signal          | string     |
| getvisualizer         | function   | signalpattern   | userdata   |
| load                  | function   | specifications  | data table |
| makenested            | function   | visualize       | function   |
| makepattern           | function   | visualizebuffer | function   |
| newgrammar            | function   | visualizefile   | function   |
| newhandler            | function   | visualizestring | function   |
| parsedxml             | function   | write           | function   |
| pattern               | function   | writeargument   | function   |
| register              | function   | writedefault    | function   |
| registerescapecommand | function   | writeemptyline  | function   |
| registerescapeline    | function   | writenewline    | function   |
| registerescapepattern | function   | writespace      | function   |

## xml (context)

|                      |          |                  |            |
|----------------------|----------|------------------|------------|
| addentitiesdoctype   | function | D texspace       |            |
| after                | function | D verbose        |            |
| all                  | function | defaultprotocol  | string     |
| applylpath           | function | delete           | function   |
| assign               | function | delete_element   | function   |
| attribute            | function | each             | function   |
| before               | function | each_element     | function   |
| body                 | function | elements         | function   |
| builtinentities      | table    | empty            | function   |
| B amp                |          | entities         | data table |
| B apos               |          | erase            | function   |
| B gt                 |          | errorhandler     | function   |
| B lt                 |          | escaped          | function   |
| B quot               |          | expressions      | table      |
| cdata                | function | F boolean        |            |
| cdataatotext         | function | F child          |            |
| checkbom             | function | F contains       |            |
| checkerror           | function | F count          |            |
| checknamespace       | function | F error          |            |
| checkns              | function | F find           |            |
| cleansed             | function | F lower          |            |
| collect              | function | F name           |            |
| collect_elements     | function | F number         |            |
| collect_tags         | function | F oneof          |            |
| collect_texts        | function | F print          |            |
| collected            | function | F quit           |            |
| collecttexts         | function | F tag            |            |
| content              | function | F text           |            |
| convert              | function | F undefined      |            |
| copy                 | function | F upper          |            |
| count                | function | fillin           | function   |
| cprint               | function | filter           | function   |
| css                  | table    | finalizers       | table      |
| F colorspecification |          | T tex            |            |
| F fontspecification  |          | F all            |            |
| F padding            |          | F attribute      |            |
| defaulthandlers      | table    | F bibtexconcat   |            |
| D file               |          | F bibtexshort    |            |
| D parsedxml          |          | F chainattribute |            |
| D string             |          | F command        |            |
| D tex                |          | F concat         |            |
| D texline            |          | F concatrange    |            |



|                  |          |                       |          |
|------------------|----------|-----------------------|----------|
| F context        |          | functions             | table    |
| F count          |          | getbuffer             | function |
| F ctxtext        |          | gethandlers           | function |
| F default        |          | gethandlersfunction   | function |
| F first          |          | include               | function |
| F function       |          | index                 | function |
| F index          |          | inheritedconvert      | function |
| F last           |          | inject                | function |
| F lettered       |          | inject_element        | function |
| F lower          |          | inject_element_after  | function |
| F match          |          | inject_element_before | function |
| F name           |          | injectafter           | function |
| F position       |          | injectbefore          | function |
| F reverse        |          | insert                | function |
| F stripped       |          | insert_element        | function |
| F tag            |          | insert_element_after  | function |
| F tags           |          | insert_element_before | function |
| F text           |          | insertafter           | function |
| F upper          |          | insertbefore          | function |
| T xml            |          | insertcomment         | function |
| F all            |          | inspect               | function |
| F att            |          | is_valid              | function |
| F attribute      |          | last                  | function |
| F attributes     |          | load                  | function |
| F cdata          |          | lpath                 | function |
| F chainattribute |          | lpathcached           | function |
| F count          |          | lpathcalls            | function |
| F default        |          | lshow                 | function |
| F elements       |          | makestandalone        | function |
| F empty          |          | match                 | function |
| F first          |          | name                  | function |
| F function       |          | newhandlers           | function |
| F index          |          | nodesettostring       | function |
| F last           |          | originalload          | function |
| F match          |          | package               | function |
| F name           |          | parent                | function |
| F position       |          | parsedentitylpeg      | userdata |
| F reverse        |          | pihandlers            | table    |
| F table          |          | placeholders          | table    |
| F tag            |          | F unknown_any_entity  |          |
| F tags           |          | F unknown_dec_entity  |          |
| F text           |          | F unknown_hex_entity  |          |
| F texts          |          | position              | function |
| first            | function | privatecodes          | table    |
| found            | function | privatetoken          | function |

|                                  |                       |                                 |                       |
|----------------------------------|-----------------------|---------------------------------|-----------------------|
| <code>process</code>             | <code>function</code> | <code>setProperty</code>        | <code>function</code> |
| <code>process_attributes</code>  | <code>function</code> | <code>settings</code>           | <code>function</code> |
| <code>process_elements</code>    | <code>function</code> | <code>specialhandler</code>     | <code>table</code>    |
| <code>processattributes</code>   | <code>function</code> | <code>sprint</code>             | <code>function</code> |
| <code>profiled</code>            | <code>table</code>    | <code>string</code>             | <code>function</code> |
| <code>raw</code>                 | <code>function</code> | <code>strip</code>              | <code>function</code> |
| <code>registerentity</code>      | <code>function</code> | <code>strip_whitespace</code>   | <code>function</code> |
| <code>registerns</code>          | <code>function</code> | <code>stripelement</code>       | <code>function</code> |
| <code>remap_name</code>          | <code>function</code> | <code>stripleadingspaces</code> | <code>function</code> |
| <code>remap_namespace</code>     | <code>function</code> | <code>table</code>              | <code>function</code> |
| <code>remap_tag</code>           | <code>function</code> | <code>text</code>               | <code>function</code> |
| <code>remapname</code>           | <code>function</code> | <code>textonly</code>           | <code>function</code> |
| <code>remapnamespace</code>      | <code>function</code> | <code>tocdata</code>            | <code>function</code> |
| <code>remaptag</code>            | <code>function</code> | <code>toelement</code>          | <code>function</code> |
| <code>renamespace</code>         | <code>function</code> | <code>tostring</code>           | <code>function</code> |
| <code>replace</code>             | <code>function</code> | <code>toxml</code>              | <code>function</code> |
| <code>replace_element</code>     | <code>function</code> | <code>tprint</code>             | <code>function</code> |
| <code>resolvns</code>            | <code>function</code> | <code>traverse</code>           | <code>function</code> |
| <code>root</code>                | <code>function</code> | <code>unescaped</code>          | <code>function</code> |
| <code>save</code>                | <code>function</code> | <code>unprivatized</code>       | <code>function</code> |
| <code>selection</code>           | <code>function</code> | <code>withelement</code>        | <code>function</code> |
| <code>serialize</code>           | <code>function</code> | <code>withelements</code>       | <code>function</code> |
| <code>setcdata</code>            | <code>function</code> | <code>wrap</code>               | <code>function</code> |
| <code>sethandlersfunction</code> | <code>function</code> | <code>xmlns</code>              | <code>table</code>    |

## zip (extra lua)

|              |          |                 |          |
|--------------|----------|-----------------|----------|
| archives     | table    | openarchive     | function |
| close        | function | openfile        | function |
| closearchive | function | registeredfiles | table    |
| open         | function | type            | function |

## zlib (extra lua)

|                          |                       |                            |                       |
|--------------------------|-----------------------|----------------------------|-----------------------|
| <code>adler32</code>     | <code>function</code> | <code>decompress</code>    | <code>function</code> |
| <code>compress</code>    | <code>function</code> | <code>decompressobj</code> | <code>function</code> |
| <code>compressobj</code> | <code>function</code> | <code>version</code>       | <code>function</code> |
| <code>crc32</code>       | <code>function</code> |                            |                       |