

1 attributes backends bibtex blobs  
boolean buffers builders caches **callback**  
callbacks catcodes characters chemistry  
commands containers context converters  
**coroutine** ctxrunner **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** pagebuilders 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 vf visualizers xml **zip** **zlib**

# ConTEXt MkIV

# global (alias: \_G)

|                |          |                 |          |
|----------------|----------|-----------------|----------|
| 1              | table    | gcinfo          | function |
| arg            | table    | getfenv         | function |
| assert         | function | getmetatable    | function |
| attributes     | table    | getreadfilename | function |
| backends       | table    | global          | table    |
| beginpage      | function | graphics        | table    |
| bibtex         | table    | gzip            | table    |
| blobs          | table    | img             | table    |
| boolean        | table    | inspect         | function |
| buffers        | table    | interactions    | table    |
| builders       | table    | interfaces      | table    |
| caches         | table    | io              | table    |
| callback       | table    | ipairs          | function |
| callbacks      | table    | job             | table    |
| catcodes       | table    | lang            | table    |
| characters     | table    | languages       | table    |
| chemistry      | table    | layouts         | table    |
| collectgarbage | function | lfs             | table    |
| commands       | table    | libraries       | table    |
| containers     | table    | lmx             | table    |
| context        | function | load            | function |
| converters     | table    | loadfile        | function |
| coroutine      | table    | loadstring      | function |
| ctxrunner      | 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 |

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

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

# backends (context)

|                       |                               |                  |                           |
|-----------------------|-------------------------------|------------------|---------------------------|
| <b>codeinjections</b> | table                         |                  | F registeredsymbol        |
|                       | F synchronizecolormodel       |                  | F registerpagecloseaction |
| <b>current</b>        | string                        |                  | F registerpageopenaction  |
| <b>defaults</b>       | table                         |                  | F registersymbol          |
|                       | T codeinjections              |                  | F setfieldcalculationset  |
|                       | T nodeinjections              |                  | F setfigurealternative    |
|                       | T registrations               |                  | F setfigurecolospace      |
|                       | D tables                      |                  | F setfiguremask           |
| <b>install</b>        | function                      |                  | F setformat               |
| <b>nodeinjections</b> | table                         |                  | F setformsmethod          |
|                       | F restore                     |                  | F setpagetransition       |
|                       | F save                        |                  | F setupcanvas             |
|                       | F transform                   |                  | F setupidentity           |
| <b>nothing</b>        | function                      |                  | F setxmpfile              |
| <b>pdf</b>            | table                         |                  | F startlayer              |
|                       | T codeinjections              |                  | F stoplayer               |
|                       | F addbookmarks                |                  | F supportedformats        |
|                       | F attachmentid                |                  | F useviewerlayer          |
|                       | F clonefield                  |                  | F validfield              |
|                       | F definefield                 |                  | F validfieldcategory      |
|                       | F definefieldset              |                  | F validfieldset           |
|                       | F defineviewerlayer           | S comment        |                           |
|                       | F embedfile                   | T nodeinjections |                           |
|                       | F enabletags                  | F addtags        |                           |
|                       | F exportformdata              | F attachfile     |                           |
|                       | F finalizepage                | F cmykcolor      |                           |
|                       | F finishreference             | F comment        |                           |
|                       | F getdefaultfieldvalue        | F destination    |                           |
|                       | F getfieldcategory            | F effect         |                           |
|                       | F getfieldset                 | F graycolor      |                           |
|                       | F getformatoption             | F injectbitmap   |                           |
|                       | F getoutputfilename           | F insertmovie    |                           |
|                       | F getpreviewfigure            | F insertsound    |                           |
|                       | F insertrenderingwindow       | F insertswf      |                           |
|                       | F mergereferences             | F insertu3d      |                           |
|                       | F mergeviewerlayers           | F knockout       |                           |
|                       | F prerollreference            | F negative       |                           |
|                       | F presetsymbol                | F overprint      |                           |
|                       | F presetsymbollist            | F positive       |                           |
|                       | F processrendering            | F reference      |                           |
|                       | F registerdocumentcloseaction | F rgbcolor       |                           |
|                       | F registerdocumentopenaction  | F spotcolor      |                           |

|                         |               |       |
|-------------------------|---------------|-------|
| F startlayer            | T gray        |       |
| F stoplayer             | 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 |
| T blue                  |               |       |

# bibtex (context)

|                            |          |                         |          |
|----------------------------|----------|-------------------------|----------|
| <b>authorref</b>           | function | <b>F flush</b>          |          |
| <b>authors</b>             | table    | <b>F nofregistered</b>  |          |
| <b>F concat</b>            |          | <b>F process</b>        |          |
| <b>F inverted</b>          |          | <b>F register</b>       |          |
| <b>F invertedshort</b>     |          | <b>F registerplaced</b> |          |
| <b>F normal</b>            |          | <b>F reset</b>          |          |
| <b>F normalshort</b>       |          | <b>F resolve</b>        |          |
| <b>F setsettings</b>       |          | <b>load</b>             | function |
| <b>F short</b>             |          | <b>new</b>              | function |
| <b>authoryearref</b>       | function | <b>singularorplural</b> | function |
| <b>authoryearsref</b>      | function | <b>statistics</b>       | table    |
| <b>convert</b>             | function | <b>N nofbytes</b>       |          |
| <b>hacks</b>               | table    | <b>N nofdefinitions</b> |          |
| <b>F add</b>               |          | <b>N nofshortcuts</b>   |          |
| <b>F doifalreadyplaced</b> |          | <b>toxml</b>            | function |
| <b>F filterall</b>         |          |                         |          |



## blobs (context)

|            |          |
|------------|----------|
| append     | function |
| dimensions | function |
| dispose    | function |

|       |          |
|-------|----------|
| new   | function |
| pack  | function |
| write | function |

# 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 define  
  F disable  
  F enable  
  F handler  
  T methods  
    F default  
    F oneline

  D names  
  D numbers  
  F set  
  F start  
  F stop  
F keeptogether  
F registertogether  
T solutions  
  T splitters  
    F define

  F optimize  
  T registered  
  F reset  
  F set  
  F split  
  F start  
  F stop

  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_spacing            | data table |
| adobename       | function   | lcchars               | data table |
| bidirectional   | data table | lccode                | function   |
| blocks          | data 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 | safechar              | function   |
| directions      | table      | setcodes              | function   |
| encodes         | data table | shape                 | function   |
| entities        | data table | shaped                | function   |
| fallbacks       | data table | shchars               | data table |
| filters         | data table | shcodes               | data table |
| fromnumber      | function   | specialchars          | data table |
| fschars         | data table | specials              | data table |
| fscodes         | data table | subscripts            | table      |
| getrange        | function   | superscripts          | table      |
| graphemes       | data table | synonyms              | data table |
| hangul          | table      | tex                   | table      |
| F decomposed    |            | D accentmapping       |            |
| F description   |            | F defineaccents       |            |
| F leadconsonant |            | F toutf               |            |
| T remapped      |            | tonumber              | function   |
| initialize      | function   | ucchars               | data table |
| is_character    | data table | uccode                | function   |
| is_command      | data table | uccodes               | data table |
| is_letter       | data table | unicodechar           | function   |
| is_mark         | data table | upper                 | function   |

## chemistry (context)

|           |          |                |          |
|-----------|----------|----------------|----------|
| component | function | moleculeparser | userdata |
| define    | function | start          | function |
| format    | string   | stop           | function |
| instance  | string   | structures     | number   |
| molecule  | function | undefine       | function |

## 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 | chemicalcomponent      | function |
| MPr                       | function | chineseallnumerals     | function |
| MPrest                    | function | chinesecapnumerals     | function |
| MPrs                      | function | chinesenumerals        | function |
| MPul                      | function | cleanfontname          | function |
| MPur                      | function | cleanupplayers         | function |
| MPw                       | function | clonefield             | function |
| MPx                       | function | collectfloat           | function |
| MPxy                      | function | collecthelp            | function |
| MPxywhd                   | function | colorcomponents        | function |
| MPy                       | function | concatcommalist        | function |
| Romannumerals             | function | consultfloat           | function |
| abjadnodotnumerals        | function | copyfileto log         | function |
| abjadnumerals             | function | copyposition           | function |
| addcounter                | function | countervalue           | function |
| addff                     | function | counttwopassdata       | function |
| addfs                     | function | currentcomponent       | function |
| addlinklistelement        | function | currentdate            | function |
| addtojavascriptpreamble   | function | currentenvironment     | function |
| addtolist                 | function | currentproduct         | function |
| allinputpaths             | function | currentproject         | function |
| alphabetic                | function | currentreferenceorder  | function |
| analysefloatmethod        | function | currentregime          | function |
| analyzelist               | function | datasetvariable        | function |
| applytochars              | function | dayname                | function |
| applytowords              | function | defineattribute        | function |
| assignbuffer              | function | definebibtexsession    | function |
| autofinishstructurelevels | function | definebreakpoint       | function |

|                         |          |                               |          |
|-------------------------|----------|-------------------------------|----------|
| definebreakpoints       | function | doifdrawingblackelse          | function |
| definecharacterspacing  | function | doifelse                      | function |
| definechemical          | function | doifelsebuffer                | function |
| defineconversion        | function | doifelsecounter               | function |
| definecounter           | function | doifelsecurrentfonthasfeature | function |
| definedviewerlayer      | function | doifelseintwopassdata         | function |
| definefield             | function | doifelsemarking               | function |
| definefieldset          | function | doifelsemessage               | function |
| definefileallback       | function | doifelsemultipar              | function |
| definefilesynonym       | function | doifelseparallel              | function |
| definefont_one          | function | doifelsepositionsused         | function |
| definefont_two          | function | doifelserangeonpage           | function |
| definefontfeature       | function | doifelserereference           | function |
| definefontsolution      | function | doifelsesavedfloat            | function |
| defineinsertion         | function | doifelsespaces                | function |
| defineintermediatecolor | function | doifelseutfmathaccent         | function |
| definelabels            | function | doifelsevisualizer            | function |
| definelanguage          | function | doiffielddcategoryelse        | function |
| definelinkedlist        | function | doiffielddelse                | function |
| definemarking           | function | doiffielddsetelse             | function |
| definemultitonecolor    | function | doiffiledefinedelse           | function |
| defineparallel          | function | doiffileexistelse             | function |
| defineparbuilder        | function | doiffirstcharelse             | function |
| defineprocesscolor      | function | doifinputfileelse             | function |
| defineprogram           | function | doifinsetelse                 | function |
| definereference         | function | doifleapyearelse              | function |
| definesectionlevels     | function | doiflisthasentry              | function |
| definespotcolor         | function | doiflisthasnumberelse         | function |
| definestructureblock    | function | doiflisthaspageelse           | function |
| definestructureset      | function | doiflisthastitleelse          | function |
| definetransparency      | function | doiflocfileelse               | function |
| definetwopasslist       | function | doifnot                       | function |
| defineviewerlayer       | function | doifnotcounter                | function |
| defrostrandomseed       | function | doifobjectreferencefoundelse  | function |
| digits                  | function | doifolderversionelse          | function |
| disableparbuilder       | function | doifoverlappingelse           | function |
| disableregime           | function | doifparentfileelse            | function |
| disablespellchecking    | function | doifposition                  | function |
| discardfromlist         | function | doifpositionelse              | function |
| doanalyzeframedbox      | function | doifpositiononpage            | function |
| doif                    | function | doifpositionsonsamepageelse   | function |
| doifblackelse           | function | doifpositionsonthispageelse   | function |
| doifcommonelse          | function | doifurldefinedelse            | function |
| doifcounter             | function | doproccestypescriptfile       | function |
| doifdimenstringelse     | function | doreshapeframedbox            | function |

|                         |          |                             |          |
|-------------------------|----------|-----------------------------|----------|
| dostarttextfile         | function | fontlookupnoffound          | function |
| dostoptextfile          | function | forceendjob                 | function |
| ecolumn                 | function | forcequitjob                | function |
| elapsedtime             | function | format                      | function |
| enablecolor             | function | formatcolor                 | function |
| enablecolorintents      | function | formatgray                  | function |
| enablefontcolorchemes   | function | freezerandomseed            | function |
| enableparbuilder        | function | from                        | function |
| enableregime            | function | getbuffer                   | function |
| enablespellchecking     | function | getbufferctxlua             | function |
| enabletransparency      | function | getbuffermkvi               | function |
| enhancelinkedlist       | function | getcommandline              | function |
| enhancelist             | function | getctxfile                  | function |
| enhancereference        | function | getcurrentprefixspec        | function |
| erasebuffer             | function | getcurrentreferencemetadata | function |
| expandcurrentreference  | function | getdefaultfieldvalue        | function |
| exportformdata          | function | getfieldcategory            | function |
| exportreferences        | function | getfirstcharacter           | function |
| featureattribute        | function | getfirsttwopassdata         | function |
| featurelist             | function | getfloatvariable            | function |
| feedback                | function | getinternalreference        | function |
| fetchhallmarks          | function | getlasttwopassdata          | function |
| fetchmultipar           | function | getmarking                  | function |
| fetchmultishape         | function | getmessage                  | function |
| fetchonemark            | function | getprivateattribute         | function |
| fetchposboxes           | function | getprivatechar              | function |
| fetchtwomarks           | function | getprogram                  | function |
| filterdefaultreference  | function | getrandomcounta             | function |
| filterreference         | function | getrandomcountb             | function |
| finalizebox             | function | getrandomseed               | function |
| findtwopassdata         | function | getreadfilename             | function |
| firstcountinterval      | function | gettexbuffer                | function |
| firstinset              | function | gettwopassdata              | function |
| flushfloat              | function | gettwopassdatalist          | function |
| flushpostponedblocks    | function | geturl                      | function |
| fontchar                | function | grabbuffer                  | function |
| fontcollectionclone     | function | helpaction                  | function |
| fontcollectiondefine    | function | helpreference               | function |
| fontcollectionprepare   | function | hexstringtonumber           | function |
| fontcollectionregister  | function | hour                        | function |
| fontcollectionreport    | function | hyphenatedlist              | function |
| fontcollectionreset     | function | hyphenatedurl               | function |
| fontlookupgetkey        | function | D characters                |          |
| fontlookupgetkeyofindex | function | N leftthyphenmin            |          |
| fontlookupinitialize    | function | D mapping                   |          |

|                        |          |                            |          |
|------------------------|----------|----------------------------|----------|
| N righthyphenmin       |          | mixflushrest               | function |
| F setcharacters        |          | mixgetsplitsplit           | function |
| incrementedcounter     | function | mixsetsplitsplit           | function |
| initializetextrackers  | function | mixstate                   | function |
| injectcurrentreference | function | molecule                   | function |
| injectreference        | function | month                      | function |
| inlinechemical         | function | monthmnm                   | function |
| insertattachment       | function | monthname                  | function |
| insertcomment          | function | mpcolor                    | function |
| insertfield            | function | mpoptions                  | function |
| insertionnumber        | function | namedstructureuservariable | function |
| insertrenderingwindow  | function | namedstructurevariable     | function |
| insertsoundclip        | function | nbfs                       | function |
| installedlanguages     | function | nextcountervalue           | function |
| installtextracker      | function | nextparallel               | function |
| languagenumber         | function | nofdays                    | function |
| lastcountervalue       | function | nofitems                   | function |
| lchexnumber            | function | nofstackedfloats           | function |
| lchexnumbers           | function | noteprefixednumber         | function |
| leapyear               | function | notetitle                  | function |
| linenumbersstageone    | function | ntimes                     | function |
| linenumbersstagetwo    | function | number                     | function |
| listlabel              | function | numbers                    | function |
| listlocation           | function | objectnumber               | function |
| listprefixednumber     | function | objectpage                 | function |
| listprefixedpage       | function | octnumber                  | function |
| listrealpage           | function | octstringtonumber          | function |
| listsize               | function | ordinal                    | function |
| listtitle              | function | overloadbookmark           | function |
| listuserdata           | function | pagestaterealpage          | function |
| loadexamodes           | function | parpos                     | function |
| loadfontgoodies        | function | pdfrotation                | function |
| loadspellchecklist     | function | percentageof               | function |
| loadtypescriptfile     | function | pgfxcolorspec              | function |
| loadvisualizer         | function | placeparallel              | function |
| locatefilepath         | function | popfloat                   | function |
| locfilename            | function | popitaliccorrection        | function |
| logoptions             | function | poplist                    | function |
| markregionbox          | function | popregime                  | function |
| mathrenderset          | function | popsectionblock            | function |
| maxitemwidth           | function | pos                        | function |
| minute                 | function | posplus                    | function |
| mixcleanup             | function | posstrut                   | function |
| mixfinalize            | function | poswhd                     | function |
| mixflushlist           | function | posxy                      | function |

|                            |          |                          |          |
|----------------------------|----------|--------------------------|----------|
| prepareMPvariable          | function | renderingvar             | function |
| preparebibtexsession       | function | replacemissingcharacters | function |
| preparedfile               | function | replacepospxywhd         | function |
| presetsymbollist           | function | resavefloat              | function |
| presettabulate             | function | resetcounter             | function |
| prevcountervalue           | function | resetfontfeature         | function |
| processbuffer              | function | resetfontsolution        | function |
| processedfile              | function | resetmarking             | function |
| processedfiles             | function | resetmathitalics         | function |
| processfile                | function | resetnullfont            | function |
| processfilemany            | function | resetparallel            | function |
| processfilenone            | function | resetreference           | function |
| processfileonce            | function | resetstructureprocessor  | function |
| processlist                | function | resettimer               | function |
| pushfloat                  | function | restartcounter           | function |
| pushitaliccorrection       | function | restorecounter           | function |
| pushlist                   | function | restorecurrentattributes | function |
| pushregime                 | function | romannumerals            | function |
| pushsectionblock           | function | runbuffer                | function |
| rawcharacter               | function | safechar                 | function |
| rawcountervalue            | function | savebuffer               | function |
| rawdate                    | function | savecounter              | function |
| referencepagestate         | function | savecurrentattributes    | function |
| referencerealpage          | function | savedlistnumber          | function |
| registerattachment         | function | savedlistprefixednumber  | function |
| registerbibtexentry        | function | savedlisttitle           | function |
| registerbibtexfile         | function | savefloat                | function |
| registerbookmark           | function | saveobject               | function |
| registerbuttons            | function | saveparallel             | function |
| registercolor              | function | savestructureblock       | function |
| registercolorintent        | function | savetaggedtwopassdata    | function |
| registeredviewerlayer      | function | savetwopassdata          | function |
| registerhelp               | function | second                   | function |
| registeritemgroup          | function | selectstructureblock     | function |
| registerlinenumbering      | function | setbreakpoints           | function |
| registermaintextcolor      | function | setcharactercasing       | function |
| registernamespace          | function | setcharactercleaning     | function |
| registerpostponedblock     | function | setcharacterkerning      | function |
| registerrendering          | function | setcharacterspacing      | function |
| registersoundclip          | function | setcharacterstripping    | function |
| registerstructureprocessor | function | setcloseddocumentaction  | function |
| registertransparency       | function | setclosepageaction       | function |
| registerunit               | function | setcolormodel            | function |
| relatemarking              | function | setcounter               | function |
| removemissingcharacters    | function | setdataset               | function |

|                          |          |                         |          |
|--------------------------|----------|-------------------------|----------|
| setdigitsmanipulation    | function | settagdescription       | function |
| setdirection             | function | settagdescriptionsymbol | function |
| setdocumentenvironments  | function | settagfigure            | function |
| setdocumentmodes         | function | settaghighlight         | function |
| setdocumentmodules       | function | settagitemgroup         | function |
| setfigurelookuporder     | function | settagproperty          | function |
| setfontfeature           | function | settagsorting           | function |
| setfontofid              | function | settagsynonym           | function |
| setfontsolution          | function | settagtablecell         | function |
| setformat                | function | settagtabulatecell      | function |
| setformsmethod           | function | setupbookmarks          | function |
| setinsertionlocation     | function | setupcanvas             | function |
| setinterfaceconstant     | function | setupcharacterspacing   | function |
| setinterfaceelement      | function | setupexport             | function |
| setinterfacemessage      | function | setupfontexpansion      | function |
| setinterfacemessages     | function | setupfontprotrusion     | function |
| setinterfacevariable     | function | setupidentity           | function |
| setinternalreference     | function | setupinsertion          | function |
| setlanguageexceptions    | function | setupitaliccorrection   | function |
| setlanguagesynonym       | function | setuplinenumbering      | function |
| setlayer                 | function | setvisual               | function |
| setmarking               | function | setxmpfile              | function |
| setmathalphabet          | function | showassignerror         | function |
| setmathalternate         | function | showattributes          | function |
| setmathattribute         | function | showchardata            | function |
| setmathitalics           | function | showcounter             | function |
| setmathstyle             | function | showfontparameters      | function |
| setnextinternalreference | function | showhyphenatedinlist    | function |
| setobject                | function | showmessage             | function |
| setopendocumentaction    | function | splitfilename           | function |
| setopenpageaction        | function | spotcolorname           | function |
| setowncounter            | function | spotcolorparent         | function |
| setpagestate             | function | spotcolorvalue          | function |
| setpagestaterealpageno   | function | startchemical           | function |
| setpagetransition        | function | startcolorset           | function |
| setparbuilder            | function | startcomponent          | function |
| setpos                   | function | startenvironment        | function |
| setrandomseed            | function | startfontsolution       | function |
| setrealign               | function | startparbuilder         | function |
| setreferencearguments    | function | startproduct            | function |
| setreferenceattribute    | function | startproject            | function |
| setreferenceoperation    | function | startregime             | function |
| setsectionblock          | function | startsectionlevel       | function |
| setstructureblockstate   | function | starttag                | function |
| settagcombination        | function | starttext               | function |



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

|  |                       |                                       |                       |
|--|-----------------------|---------------------------------------|-----------------------|
| <code>x_table_reflow_width</code>      | <code>function</code> | <code>x_table_set_reflow_width</code> | <code>function</code> |
| <code>x_table_set_construct</code>     | <code>function</code> | <code>year</code>                     | <code>function</code> |
| <code>x_table_set_reflow_height</code> | <code>function</code> |                                       |                       |

## containers (context)

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

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

## converters (context)

|                    |          |                   |            |
|--------------------|----------|-------------------|------------|
| Alphabetic         | function | maxchars          | function   |
| Character          | function | minute            | function   |
| Characters         | function | month             | function   |
| Romannumerals      | function | nofdays           | function   |
| abjadnodotnumerals | function | number            | function   |
| abjadnumerals      | function | numbers           | 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   |
| leapyear           | 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 |

## ctxrunner (context)

load            function  
prepfiles   data table

resolve        function

## debug (basic lua)

|                           |          |                           |          |
|---------------------------|----------|---------------------------|----------|
| <code>debug</code>        | function | <code>getupvalue</code>   | function |
| <code>getfenv</code>      | function | <code>setfenv</code>      | function |
| <code>gethook</code>      | function | <code>sethook</code>      | function |
| <code>getinfo</code>      | function | <code>setlocal</code>     | function |
| <code>getlocal</code>     | function | <code>setmetatable</code> | function |
| <code>getmetatable</code> | function | <code>setupvalue</code>   | function |
| <code>getregistry</code>  | function | <code>traceback</code>    | function |

## dir (context)

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

|          |          |
|----------|----------|
| ls       | function |
| makedirs | function |
| makedirs | 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)

|                |            |                    |          |
|----------------|------------|--------------------|----------|
| arguments      | data table | D modules          |          |
| files          | table      | T ctxfile          |          |
| getargument    | function   | D environments     |          |
| getfilename    | function   | D modes            |          |
| options        | table      | D modules          |          |
| T commandline  |            | setargument        | function |
| D environments |            | setdefaultargument | function |
| D modes        |            | setfilename        | function |

## environment (context)

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

## epdf (extra tex)

|        |          |              |          |
|--------|----------|--------------|----------|
| Array  | function | PDFRectangle | function |
| Dict   | function | open         | function |
| Object | function | type         | 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        |            | magics           | data table |
| bitmapimage   | function   | mergegoodies     | function   |
| boxnumber     | number     | nofprocessed     | number     |
| 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   |
| existsers     | data table | setlookups       | function   |
| exists        | function   | setorder         | function   |
| formats       | data table | setpaths         | function   |
| found         | data table | suffixes         | data table |
| get           | function   | tprint           | function   |
| guess         | function   | used             | data table |

## file (basic lua)

|                                |          |                             |          |
|--------------------------------|----------|-----------------------------|----------|
| <code>addsuffix</code>         | function | <code>loadchecksum</code>   | function |
| <code>basename</code>          | function | <code>nameonly</code>       | function |
| <code>checksum</code>          | function | <code>nametotable</code>    | function |
| <code>collapsepath</code>      | function | <code>needs_updating</code> | function |
| <code>copy</code>              | function | <code>needsupdating</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 |
| <code>joinpath</code>          | function | <code>syncmtimes</code>     | function |

## floats (context)

|                               |                       |                         |                       |
|-------------------------------|-----------------------|-------------------------|-----------------------|
| <code>analysemethod</code>    | <code>function</code> | <code>nofstacked</code> | <code>function</code> |
| <code>checkedpagefloat</code> | <code>function</code> | <code>pop</code>        | <code>function</code> |
| <code>collect</code>          | <code>function</code> | <code>push</code>       | <code>function</code> |
| <code>consult</code>          | <code>function</code> | <code>resave</code>     | <code>function</code> |
| <code>flush</code>            | <code>function</code> | <code>save</code>       | <code>function</code> |
| <code>getvariable</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 cleanupable
- 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                | N version             |            |
| S extra_space       | current               | function   |
| S extraspace        | currentid             | function   |
| S slant             | definers              | table      |
| S space             | F addlookup           |            |
| S space_shrink      | F analyze             |            |
| S space_stretch     | F applypostprocessors |            |
| S spaceshrink       | F checkedmode         |            |
| S spacestretch      | F checkedscript       |            |
| S x_height          | F current             |            |
| S units             | S defaultlookup       |            |
| S vfactor           | F define              |            |
| S xheight           | F getspecification    |            |
| T properties        | F loadfont            |            |
| S autoitalicamount  | F makespecification   |            |
| T cidinfo           | T methods             |            |
| S embedding         | F install             |            |
| S encodingbytes     | D variants            |            |
| S filename          | F read                |            |
| S finalized         | F register            |            |
| S fontname          | F registered          |            |
| S format            | F registersplit       |            |
| S fullname          | F resetnullfont       |            |
| S hasitalics        | F resolve             |            |
| S hasmath           | T resolvers           |            |
| S mathitalics       | F file                |            |
| S mode              | F name                |            |
| S name              | F spec                |            |
| S noglyphnames      | definetypeface        | function   |
| S nostackmath       | encodings             | table      |
| S psname            | T agl                 |            |
| S textitalics       | D cache               |            |
| S virtualized       | F is_known            |            |
| D loadedfonts       | D known               |            |
| S namemode          | F load                |            |
| F newfeatures       | F make_unicode_vector |            |
| F newhandler        | 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              |            |

|                         |               |
|-------------------------|---------------|
| D data                  | S Ccaron      |
| T designsizes           | S Ccedilla    |
| D data                  | S Ccircumflex |
| F filename              | S Cdotaccent  |
| F register              | S Dcaron      |
| F getcompositions       | S Dstroke     |
| T list                  | S Eacute      |
| F compositions          | S Ebreve      |
| F designsizes           | S Ecaron      |
| F expansions            | S Ecircumflex |
| F featureset            | S Ediaeresis  |
| F files                 | S Edieresis   |
| F mathematics           | S Edotaccent  |
| F protrusions           | S Egrave      |
| F solutions             | S Emacron     |
| F typefaces             | S Eogonek     |
| F load                  | S Eumlaut     |
| F prepare_features      | S Gbreve      |
| F register              | S Gcircumflex |
| F registerpostprocessor | S Gdotaccent  |
| F report                | S Hcircumflex |
| handlers                | S Hstroke     |
| table                   | S IJ          |
| T afm                   | S IJligature  |
| B addkerns              | S Iacute      |
| B addligatures          | S Ibreve      |
| B addtexligatures       | S Icircumflex |
| B autoprefixed          | S Idiaeresis  |
| D cache                 | S Idieresis   |
| D features              | S Idotaccent  |
| T helpdata              | S Igrave      |
| T bothkerned            | S Imacron     |
| S AE                    | S Iogonek     |
| S AEligature            | S Itilde      |
| S Aacute                | S Iumlaut     |
| S Abreve                | S Jcircumflex |
| S Acircumflex           | S Kcedilla    |
| S Adiaeresis            | S Lacute      |
| S Adieresis             | S Lcaron      |
| S Agrave                | S Lcedilla    |
| S Amacron               | S Lslash      |
| S Aogonek               | S Lstroke     |
| S Aring                 | S Nacute      |
| S Atilde                | S Ncaron      |
| S Aumlaut               | S Ncedilla    |
| S Cacute                |               |

|                 |               |
|-----------------|---------------|
| S Ntilde        | S Zcaron      |
| S OE            | S Zdotaccent  |
| S OEligature    | S aacute      |
| S Oacute        | S abreve      |
| S Obreve        | S acircumflex |
| S Ocircumflex   | S adiaeresis  |
| S Odiaeresis    | S adieresis   |
| S Odieresis     | S ae          |
| S Ograve        | S aeligature  |
| S Ohungarumlaut | S agrave      |
| S Omacron       | S amacron     |
| S Oslash        | S aogonek     |
| S Ostroke       | S aring       |
| S Otilde        | S atilde      |
| S Oumlaut       | S aumlaut     |
| S Racute        | S cacute      |
| S Rcaron        | S ccaron      |
| S Rcedilla      | S ccedilla    |
| S Sacute        | S ccircumflex |
| S Scaron        | S cdotaccent  |
| S Scedilla      | S dcaron      |
| S Scircumflex   | S dotlessI    |
| S Ssharp        | S dotlessJ    |
| S Tcaron        | S dotlessi    |
| S Tcedilla      | S dotlessj    |
| S Tstroke       | S dstroke     |
| S Uacute        | S eacute      |
| S Ubreve        | S ebreve      |
| S Ucircumflex   | S ecaron      |
| S Udiaeresis    | S ecircumflex |
| S Udieresis     | S ediaeresis  |
| S Ugrave        | S edieresis   |
| S Uhungarumlaut | S edotaccent  |
| S Umacron       | S egrave      |
| S Uogonek       | S emacron     |
| S Uring         | S eogonek     |
| S Utilde        | S eumlaut     |
| S Uumlaut       | S gbreve      |
| S Wcircumflex   | S gcircumflex |
| S Yacute        | S gdotaccent  |
| S Ycircumflex   | S hcircumflex |
| S Ydiaeresis    | S hstroke     |
| S Ydieresis     | S iacute      |
| S Ygrave        | S ibreve      |
| S Zacute        | S icircumflex |

|                 |                 |
|-----------------|-----------------|
| S idiaeresis    | S tstroke       |
| S idieresis     | S uacute        |
| S idotaccent    | S ubreve        |
| S igrave        | S ucircumflex   |
| S ij            | S udiaeresis    |
| S ijligature    | S udieresis     |
| S imacron       | S ugrave        |
| S iogonek       | S uhungarumlaut |
| S itilde        | S umacron       |
| S iumlaut       | S uogonek       |
| S jcircumflex   | S uring         |
| S kcedilla      | S utilde        |
| S lacute        | S uumlaut       |
| S lcaron        | S wcircumflex   |
| S lcedilla      | S yacute        |
| S lslash        | S ycircumflex   |
| S lstroke       | S ydiaeresis    |
| S nacute        | S ydieresis     |
| S ncaron        | S ygrave        |
| S ncedilla      | S zacute        |
| S ntilde        | S zcaron        |
| S oacute        | S zdotaccent    |
| S obreve        | T leftkerned    |
| S ocircumflex   | S AE            |
| S odiaeresis    | S AEligature    |
| S odieresis     | S IJ            |
| S oe            | S IJligature    |
| S oeligature    | S OE            |
| S ograve        | S OEligature    |
| S ohungarumlaut | S Ssharp        |
| S omacron       | S ae            |
| S oslash        | S aeligature    |
| S ostroke       | S ij            |
| S otilde        | S ijligature    |
| S oumlaut       | S oe            |
| S racute        | S oeligature    |
| S rcaron        | S ssharp        |
| S rcedilla      | T ligatures     |
| S sacute        | T f             |
| S scaron        | T ff            |
| S scedilla      | T fi            |
| S scircumflex   | T fl            |
| S ssharp        | T i             |
| S tcaron        | T s             |
| S tcedilla      | T rightkerned   |

|                        |                             |
|------------------------|-----------------------------|
| S AE                   | D baselines                 |
| S AEligature           | D features                  |
| S IJ                   | D languages                 |
| S IJligature           | D scripts                   |
| S OE                   | N version                   |
| S OEligature           | T pfb                       |
| S Ssharp               | T tfm                       |
| S ae                   | D features                  |
| S aeligature           | F setfeatures               |
| S ij                   | T vf                        |
| S ijligature           | T combinations              |
| S oe                   | F combine                   |
| S oeligature           | T combiner                  |
| S ssharp               | D commands                  |
| T texligatures         | F find                      |
| T endash               | D helpers                   |
| T hyphen               | D math                      |
| T quoteleft            | D predefined                |
| T quoteright           | D whatever                  |
| F load                 | <b>hashes</b> <b>table</b>  |
| F setfeatures          | D characters                |
| B syncspace            | D csnames                   |
| N version              | D descriptions              |
| T otf                  | T dynamics                  |
| F addfeature           | D emwidths                  |
| D cache                | D exheights                 |
| T chainhandlers        | D identifiers               |
| F normal               | D italics                   |
| F verbose              | D lastmathids               |
| F collectlookups       | D marks                     |
| F dataset              | D parameters                |
| S defaultbasealternate | T processes                 |
| S defaultnodealternate | D properties                |
| D enhancers            | D quads                     |
| D features             | D resources                 |
| F getalternate         | T setdynamics               |
| T glists               | D xheights                  |
| F load                 | <b>helpers</b> <b>table</b> |
| F scriptandlanguage    | F addprivate                |
| F setcontextchain      | F dimenfactor               |
| F setdynamics          | F fontpatternhassize        |
| F setfeatures          | F getdigitwidth             |
| T statistics           | F getparameters             |
| D usedfeatures         | F getprivatenode            |
| T tables               | F hasprivate                |



```

F nametoslot
F setdigitwidth
F splitfontpattern
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> | data table |
| <b>readers</b>     | table      |
| 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>  | table      |

|                   |            |
|-------------------|------------|
| 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>    | table      |
| F uselibrary      |            |
| <b>tables</b>     | table      |
| <b>tracers</b>    | table      |
| <b>typefaces</b>  | data table |

# 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)

|                            |                       |
|----------------------------|-----------------------|
| <code>boxes</code>         | <code>function</code> |
| <code>checksize</code>     | <code>function</code> |
| <code>clone</code>         | <code>function</code> |
| <code>copy</code>          | <code>function</code> |
| <code>immediatwrite</code> | <code>function</code> |
| <code>keys</code>          | <code>function</code> |
| <code>new</code>           | <code>function</code> |
| <code>node</code>          | <code>function</code> |

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

# 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 setcloseddocument  
F setclosepage  
F setopendocument  
F setopenpage

## renderings table

F register  
F rendering  
F var

## soundclips table

F insert  
F register

# interfaces (context)

|                      |            |                   |            |
|----------------------|------------|-------------------|------------|
| addvalidkeys         | function   | F define          |            |
| cachedsetups         | data table | F list            |            |
| cachesetup           | function   | registernamespace | function   |
| 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 |
| namespaces           | table      |                   |            |

## io (basic lua)

|               |          |               |                     |
|---------------|----------|---------------|---------------------|
| ask           | function | o_limiters    | table               |
| bytes         | function | T paranoid    |                     |
| characters    | function | open          | overloaded function |
| close         | function | open_ro       | function            |
| exists        | function | output        | function            |
| fileseparator | string   | pathseparator | string              |
| flush         | function | popen         | overloaded function |
| i_limiter     | function | read          | function            |
| i_limiters    | table    | readnumber    | function            |
| T paranoid    |          | readstring    | function            |
| input         | function | savedata      | function            |
| limiter       | function | size          | function            |
| lines         | function | stderr        | userdata            |
| loadchunk     | function | stdin         | userdata            |
| loaddata      | function | stdout        | userdata            |
| loadlines     | function | tmpfile       | function            |
| noflines      | function | type          | function            |
| o_limiter     | 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 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            |                 | D collected      |               |
| F setall         |                 | T components     |               |
| F setdim         |                 | T tobesaved      |               |
| D tobesaved      |                 | T branches       |               |
| F upperleft      |                 | S name           |               |
| F upperright     |                 | S type           |               |
| F width          |                 | <b>variables</b> | <b>table</b>  |
| F x              |                 | D checksums      |               |
| F xy             |                 | D collected      |               |
| F y              |                 | F save           |               |
| <b>register</b>  | <b>function</b> | D tobesaved      |               |
| <b>save</b>      | <b>function</b> | <b>version</b>   | <b>number</b> |
| <b>structure</b> | <b>table</b>    |                  |               |

## 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   | posthyphenchar | function   |
| associated    | data table | prehyphenchar  | function   |
| association   | function   | registered     | data table |
| counters      | data table | righthyphenmin | function   |
| current       | function   | setexceptions  | function   |
| data          | data table | setsynonym     | function   |
| define        | function   | unload         | function   |
| getnumber     | function   | version        | number     |
| hyphenate     | function   | words          | table      |
| installed     | function   |                |            |
| labels        | table      | F check        |            |
| F define      |            | T data         |            |
| F split       |            | F disable      |            |
| lefthyphenmin | function   | F enable       |            |
| loadable      | function   | T enablers     |            |
| loadwords     | function   | B enables      |            |
| logger        | table      | F found        |            |
| F report      |            | F load         |            |
| numbers       | data table | T methods      |            |
|               |            | N threshold    |            |

# layouts (context)

status table

F leftorrightpagection

F isleftpage

## 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>B</b>     | function | counter               | function   |
| <b>C</b>     | function | endstripper           | function   |
| <b>Carg</b>  | function | firstofsplit          | function   |
| <b>Cb</b>    | function | frontstripper         | function   |
| <b>Cc</b>    | function | is_lpeg               | function   |
| <b>Cf</b>    | function | keeper                | function   |
| <b>Cg</b>    | function | locale                | function   |
| <b>Cmt</b>   | function | match                 | function   |
| <b>Cp</b>    | function | oneof                 | function   |
| <b>Cs</b>    | function | patterns              | data table |
| <b>Ct</b>    | function | print                 | function   |
| <b>P</b>     | function | replacer              | function   |
| <b>R</b>     | function | secondofsplit         | function   |
| <b>S</b>     | function | setmaxstack           | function   |
| <b>UP</b>    | function | split                 | function   |
| <b>UR</b>    | function | splitat               | function   |
| <b>US</b>    | function | splitter              | function   |
| <b>V</b>     | function | stripper              | function   |
| anywhere     | function | tsplitat              | function   |
| append       | function | tsplitter             | function   |
| balancer     | function | type                  | function   |
| checkedsplit | function | utfchartabletopattern | function   |
| count        | function | version               | 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>          | data table      |
| bytedata           | data table      | <b>name</b>              | <b>table</b>    |
| bytedone           | table           | <b>numbers</b>           | data table      |
| collectgarbage     | function        | <b>registercode</b>      | function        |
| delay              | function        | <b>registeredcodes</b>   | function        |
| finalize           | function        | <b>registerfinalizer</b> | function        |
| firstbytecode      | number          | <b>registername</b>      | function        |
| flush              | function        | <b>setbytecode</b>       | <b>function</b> |
| flushdelayed       | function        | <b>setluaname</b>        | <b>function</b> |
| <b>getbytecode</b> | <b>function</b> | <b>startupfile</b>       | string          |
| <b>getluaname</b>  | <b>function</b> | <b>version</b>           | string          |
| lastbytecode       | number          |                          |                 |

# luatex (context)

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

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

## 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>resettexts</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>texttextsdata</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)

|                     |                       |
|---------------------|-----------------------|
| <code>fields</code> | <code>function</code> |
| <code>new</code>    | <code>function</code> |

|                       |                       |
|-----------------------|-----------------------|
| <code>pen_info</code> | <code>function</code> |
| <code>version</code>  | <code>function</code> |

# 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)

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



# nodes (context)

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

|                      |            |                  |            |
|----------------------|------------|------------------|------------|
| F set                |            | F reset          |            |
| striprange           | function   | F set            |            |
| tasks                | table      | F setlist        |            |
| F actions            |            | F fontchar       |            |
| F appendaction       |            | F start          |            |
| F disableaction      |            | T steppers       |            |
| F disablegroup       |            | F check          |            |
| F enableaction       |            | F codes          |            |
| F enablegroup        |            | F features       |            |
| F freeze             |            | F glyphs         |            |
| F freezegroup        |            | F message        |            |
| F new                |            | F messages       |            |
| F prependaction      |            | F nofsteps       |            |
| F removeaction       |            | F register       |            |
| F restart            |            | F reset          |            |
| F showactions        |            | F start          |            |
| F table              |            | F stop           |            |
| texthdir_is_equal    | data table | F stop           |            |
| texthdir_is_is       | data table | T transparencies |            |
| texthdir_is_opposite | data table | F reset          |            |
| texthdir_is_parallel | data table | F set            |            |
| tonodes              | function   | F setlist        |            |
| tosequence           | function   | unsetattribute   | function   |
| totable              | function   | unsetattributes  | function   |
| toutf                | function   | visualizebox     | function   |
| tracers              | table      | visualizers      | table      |
| T characters         |            | F box            |            |
| F collect            |            | F handler        |            |
| F equal              |            | F setfont        |            |
| F indices            |            | F setlayer       |            |
| F start              |            | F setvisual      |            |
| F string             |            | whatcodes        | data table |
| F unicodes           |            | whatsitcodes     | data table |
| T colors             |            | writable_spec    | function   |

## number (context)

|              |            |                |          |
|--------------|------------|----------------|----------|
|              | function   | tocentimeters  | 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 |
| splitdimen   | function   | toscaled       | function |
| tobasepoints | function   | toscaledpoints | function |
| tobitstring  | 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> | <code>function</code> | <code>loaders</code>          | <code>table</code>    |
| <code>clibpaths</code>       | <code>function</code> | <code>loadlib</code>          | <code>function</code> |
| <code>config</code>          | <code>string</code>   | <code>path</code>             | <code>string</code>   |
| <code>cpath</code>           | <code>string</code>   | <code>preload</code>          | <code>table</code>    |
| <code>libpaths</code>        | <code>function</code> | <code>prependtolibpath</code> | <code>function</code> |
| <code>loaded</code>          | <code>table</code>    | <code>seeall</code>           | <code>function</code> |

# pagebuilders (context)

`mixedcolumns` `table`

`F cleanup`

`F finalize`

`F getlist`

`F getrest`

`F getsplit`

`F setsplit`

## 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 ℃             |
| 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 Permille  | 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 Phot       |
| S Litre         | S Poise      |
| S Lumen         | S Radian     |
| S Lux           | S Rev        |
| S Maxwell       | S Revolution |
| S Meter         | S Second     |
| S Metre         | S Siemens    |
| S Metric Ton    | S Sievert    |
| S Minute        | S Steradian  |
| S Mol           | S Stilb      |
| S Mole          | S Stokes     |
| S Nautical Mile | S Tesla      |
| S Neper         | S Tonne      |
| S Newton        | S Volt       |
| S Oersted       | S Watt       |
| S Ohm           | S Weber      |
| S Pascal        | S eV         |

## profiler (extra lua)

`pause`    `function`  
`resume`   `function`

`start`   `function`  
`stop`    `function`

## regimes (context)

|         |          |
|---------|----------|
| disable | function |
| enable  | function |
| pop     | function |
| process | function |

|           |          |
|-----------|----------|
| push      | function |
| toregime  | function |
| translate | function |

# resolvers (context)

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

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

## scripts (context)

|                                     |            |                         |            |
|-------------------------------------|------------|-------------------------|------------|
| <b>categorytonumber</b>             | data table | <b>handlers</b>         | data table |
| <b>colors</b>                       | data table | <b>hash</b>             | table      |
| <b>defaults</b>                     | table      | <b>installdataset</b>   | function   |
| N inter_char_half_shrink_factor     |            | <b>installmethod</b>    | function   |
| N inter_char_half_stretch_factor    |            | <b>numbertocategory</b> | data table |
| N inter_char_hangul_penalty         |            | <b>numbertodataset</b>  | data table |
| N inter_char_quarter_shrink_factor  |            | <b>preprocess</b>       | function   |
| N inter_char_quarter_stretch_factor |            | <b>reset</b>            | function   |
| N inter_char_shrink_factor          |            | <b>set</b>              | function   |
| N inter_char_stretch_factor         |            |                         |            |



# set (context)

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

`tonumber`   `function`  
`totable`    `function`

# socket (extra lua)

|                  |          |                   |                        |
|------------------|----------|-------------------|------------------------|
| <b>BLOCKSIZE</b> | number   |                   | F keep-open            |
| <b>_DEBUG</b>    | boolean  |                   | <b>skip</b> function   |
| <b>bind</b>      | function |                   | <b>sleep</b> function  |
| <b>choose</b>    | function |                   | <b>smtp</b> table      |
| <b>connect</b>   | function |                   | S DOMAIN               |
| <b>dns</b>       | table    |                   | N PORT                 |
|                  |          | F gethostname     | S SERVER               |
|                  |          | F tohostname      | N TIMEOUT              |
|                  |          | F toip            | S ZONE                 |
| <b>ftp</b>       | table    |                   | F message              |
|                  |          | S PASSWORD        | F open                 |
|                  |          | N PORT            | F send                 |
|                  |          | N TIMEOUT         | <b>source</b> function |
|                  |          | S USER            | <b>sourcet</b> table   |
|                  |          | F command         | F by-length            |
|                  |          | F get             | F default              |
|                  |          | F open            | F http-chunked         |
|                  |          | F put             | F until-closed         |
| <b>gettime</b>   | function |                   | <b>tcp</b> function    |
| <b>http</b>      | table    |                   | <b>tp</b> table        |
|                  |          | N PORT            | N TIMEOUT              |
|                  |          | N TIMEOUT         | F connect              |
|                  |          | S USERAGENT       | <b>try</b> function    |
|                  |          | F open            | <b>udp</b> function    |
|                  |          | F request         | <b>url</b> table       |
| <b>newtry</b>    | function |                   | F absolute             |
| <b>protect</b>   | function |                   | F build                |
| <b>select</b>    | function |                   | F build_path           |
| <b>sink</b>      | function |                   | F escape               |
| <b>sinkt</b>     | table    |                   | F parse                |
|                  |          | F close-when-done | F parse_path           |
|                  |          | F default         | F unescape             |
|                  |          | F http-chunked    |                        |

## sorters (context)

**comparers**        table

    F basic

**constants**        table

    S defaultdigits

    S defaultlanguage

    S defaultmethod

    N digitmaximum

    N digitoffset

    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 |
| elapsedindeed  | function |
| elapsedseconds | function |
| elapsedtime    | function |
| enable         | boolean  |
| formatruntime  | function |
| hastiming      | function |
| memused        | function |
| register       | function |
| reportstorage  | function |

|               |          |
|---------------|----------|
| resettiming   | function |
| runtime       | function |
| savefmtstatus | function |
| show          | function |
| showjobstat   | function |
| starttiming   | function |
| stoptiming    | function |
| threshold     | number   |
| timed         | 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 |
| tofmodules | number     |
| toftables  | number     |

## streams (context)

|            |          |
|------------|----------|
| collect    | function |
| disable    | function |
| enable     | function |
| flush      | function |
| initialize | function |

|             |          |
|-------------|----------|
| push        | function |
| start       | function |
| stop        | function |
| synchronize | function |

## string (basic lua)

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



# structures (context)

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

|                   |       |                   |       |
|-------------------|-------|-------------------|-------|
| T bottomfloat     |       | F hastitledata    |       |
| S location        |       | D internals       |       |
| S name            |       | F iscached        |       |
| N number          |       | F label           |       |
| T endnote         |       | F location        |       |
| S location        |       | F number          |       |
| S name            |       | D ordered         |       |
| N number          |       | F page            |       |
| T footnote        |       | F popnesting      |       |
| S location        |       | F prefix          |       |
| S name            |       | F prefixednumber  |       |
| N number          |       | F prefixedpage    |       |
| T linenote        |       | F process         |       |
| S location        |       | D pushed          |       |
| S name            |       | F pushnesting     |       |
| N number          |       | F realpage        |       |
| T topfloat        |       | T result          |       |
| S location        |       | F sectionnumber   |       |
| S name            |       | F size            |       |
| N number          |       | F title           |       |
| F define          |       | D tobesaved       |       |
| F getdata         |       | F userdata        |       |
| F getlocation     |       | F uservalue       |       |
| F getname         |       | marks             | table |
| F getnumber       |       | D data            |       |
| F setlocation     |       | F define          |       |
| F setup           |       | F exists          |       |
| D stored          |       | F fetch           |       |
| itemgroups        | table | F fetchallmarks   |       |
| F maxwidth        |       | F fetched         |       |
| F nofitems        |       | F fetchonemark    |       |
| F register        |       | F fetchtwomarks   |       |
| lists             | table | F get             |       |
| F addto           |       | F number          |       |
| F analyze         |       | F relate          |       |
| D cached          |       | F reset           |       |
| D collected       |       | F set             |       |
| F discard         |       | F show            |       |
| F enhance         |       | F synchronize     |       |
| T enhancers       |       | F title           |       |
| F filter          |       | T tracers         |       |
| F filtercollected |       | F showtable       |       |
| F formulanumber   |       | notes             | table |
| F hasnumberdata   |       | F checkpagechange |       |
| F haspagedata     |       | 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  
**pages** table  
 F analyze  
 D collected  
 F is\_odd  
 F number  
 F save  
 D tobesaved  
**references** table  
 F analyze  
 F checkedfile  
 F checkedfileorurl  
 F checkedprogram  
 F checkedrealpage  
 F checkedurl  
 D collected  
 U componentsplitter  
 F currentmetadata  
 F currentorder  
 D currentset  
 F define  
 D defined  
 D derived  
 F enableinteraction

F enhance  
 D executers  
 F expandcurrent  
 F export  
 T files  
 T data  
 F define  
 F get  
 F filter  
 F filterdefault  
 D filters  
 F from  
 F get  
 F getcurrentmetadata  
 F getcurrentprefixspec  
 F getinnermethod  
 F getinternalreference  
 D handlers  
 F identify  
 F import  
 F inject  
 F injectcurrentset  
 D internals  
 F load  
 F loadpresets  
 F mark  
 D pages  
 U prefixsplitter  
 D productdata  
 T programs  
 T data  
 F define  
 F get  
 F realpageofpage  
 U referencesplitter  
 D referred  
 F referredpage  
 F registerfinalizer  
 F registerinitializer  
 F registerpage  
 F reportproblems  
 F reset  
 T resolvers  
 F reference  
 F section

|                                    |                     |       |
|------------------------------------|---------------------|-------|
| D runners                          | F prepare           |       |
| F set                              | F process           |       |
| F setandgetattribute               | F sort              |       |
| F setcomponent                     | F store             |       |
| F setinnermethod                   | D tobesaved         |       |
| F setinternalreference             | F unique            |       |
| F setnextinternal                  | F userdata          |       |
| F setnextorder                     | sections            | table |
| D specials                         | F autodepth         |       |
| F splitcomponent                   | F cct               |       |
| F splitprefix                      | T collected         |       |
| F splitreference                   | F current           |       |
| T testrunners                      | F currentblock      |       |
| F inner                            | F currentid         |       |
| F special                          | F currentlevel      |       |
| F special operation                | F depthnumber       |       |
| F special operation with arguments | F finddata          |       |
| T testspecials                     | F findnumber        |       |
| F deltapage                        | F fullnumber        |       |
| F i                                | F getcurrentlevel   |       |
| F internal                         | F getlevel          |       |
| F page                             | F getnumber         |       |
| F realpage                         | F internalreference |       |
| F section                          | D levelmap          |       |
| F userpage                         | D levels            |       |
| D tobereferred                     | F load              |       |
| D tobesaved                        | F matchingtilldepth |       |
| T urls                             | F numberatdepth     |       |
| T data                             | F numbers           |       |
| F define                           | F popblock          |       |
| F get                              | F prefixedconverted |       |
| F valid                            | F pushblock         |       |
| F whatfrom                         | F register          |       |
| registers                          | D registered        |       |
| F analyze                          | F reportstructure   |       |
| F analyzed                         | F save              |       |
| D collected                        | F set               |       |
| F compare                          | F setblock          |       |
| F define                           | F setchecker        |       |
| F enhance                          | F setlevel          |       |
| F extend                           | F setnumber         |       |
| F filter                           | F somelevel         |       |
| F filtercollected                  | F structuredata     |       |
| F finalize                         | F title             |       |
| F flush                            | D tobesaved         |       |

|                 |              |                        |       |
|-----------------|--------------|------------------------|-------|
| F typesetnumber |              | tags                   | table |
| F userdata      |              | T data                 |       |
| B verbose       |              | F detailedtag          |       |
| F way           |              | F getid                |       |
| <b>sets</b>     | <b>table</b> | F handler              |       |
| F define        |              | D labels               |       |
| F get           |              | F last                 |       |
| F getall        |              | F lastinchain          |       |
| D setlist       |              | T metadata             |       |
| <b>specials</b> | <b>table</b> | D properties           |       |
| D collected     |              | F registerdata         |       |
| F retrieve      |              | F registermetadata     |       |
| F store         |              | F restart              |       |
| D tobesaved     |              | F setattributehash     |       |
| <b>synonyms</b> | <b>table</b> | F setcombination       |       |
| F analyzed      |              | F setdescription       |       |
| D collected     |              | F setdescriptionsymbol |       |
| F compare       |              | F setfigure            |       |
| F define        |              | F sethighlight         |       |
| F filter        |              | F setitemgroup         |       |
| F finalize      |              | F setproperty          |       |
| F flush         |              | F setsorting           |       |
| F meaning       |              | F setsynonym           |       |
| F prepare       |              | F settablecell         |       |
| F process       |              | F settabulatecell      |       |
| F register      |              | F start                |       |
| F registerused  |              | F stop                 |       |
| F sort          |              | D taglist              |       |
| F synonym       |              | T userdata             |       |
| D tobesaved     |              |                        |       |

## table (basic lua)

|                 |                 |                      |                 |
|-----------------|-----------------|----------------------|-----------------|
| append          | function        | print                | function        |
| are_equal       | function        | <b>remove</b>        | <b>function</b> |
| compact         | function        | reversed             | function        |
| <b>concat</b>   | <b>function</b> | sequenced            | function        |
| contains        | function        | serialize            | function        |
| copy            | function        | setmetatablecall     | function        |
| count           | function        | setmetatableindex    | function        |
| derive          | function        | setmetatablekey      | function        |
| fastcopy        | function        | setmetatablenewindex | function        |
| flattened       | function        | <b>setn</b>          | <b>function</b> |
| <b>foreach</b>  | <b>function</b> | <b>sort</b>          | <b>function</b> |
| <b>foreachi</b> | <b>function</b> | sortedhash           | function        |
| fromhash        | function        | sortedhashkeys       | function        |
| getmetatablekey | function        | sortedkeys           | function        |
| <b>getn</b>     | <b>function</b> | sortedpairs          | function        |
| has_one_entry   | function        | strip                | function        |
| identical       | function        | sub                  | function        |
| imerge          | function        | swapped              | function        |
| imerged         | function        | tocontext            | function        |
| <b>insert</b>   | <b>function</b> | tofile               | function        |
| is_empty        | function        | tohandle             | function        |
| keys            | function        | tohash               | function        |
| loweredkeys     | function        | toxml                | function        |
| <b>maxn</b>     | <b>function</b> | 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   |
| extraprimtives   | 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   |
| getlcode         | function   | setcatcode    | function   |
| getlist          | function   | setcount      | function   |
| getmath          | function   | setdelcode    | function   |
| getmathcode      | function   | setdimen      | function   |
| getnest          | function   | setfalse      | function   |
| getsfcode        | function   | setlcode      | 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   |

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



## 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 |
| printerror | function |
| showlines  | function |
| strings    | table    |

S undefined

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

## trackers (context)

|                |            |          |          |
|----------------|------------|----------|----------|
| data           | data table | name     | string   |
| disable        | function   | register | function |
| dumphashtofile | function   | report   | function |
| enable         | function   | savehash | function |
| list           | function   | show     | 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

## **fast\_hpack**      function

## **hpack**              function

## **italics**           table

F forcevariant

F handler

F reset

F set

## **kerns**              table

D factors

F handler

B keepligature

B keeptogether

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 next_row          |
| 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  |



# 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          |                 | utfcodes         | <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)

|                                 |              |                   |                             |
|---------------------------------|--------------|-------------------|-----------------------------|
| <b>debugger</b>                 | <b>table</b> |                   | U settings_to_hash_c        |
| F disable                       |              |                   | F settings_to_array         |
| F enable                        |              |                   | F settings_to_hash          |
| F savestats                     |              |                   | F settings_to_hash_strict   |
| F showstats                     |              |                   | F settings_to_hash_tolerant |
| <b>formatters</b>               | <b>table</b> |                   | F settings_to_set           |
| F formatcolumns                 |              |                   | F simple_hash_to_string     |
| F list                          |              |                   | F splitthousands            |
| F stripzeros                    |              |                   |                             |
| <b>garbagecollector</b>         | <b>table</b> | <b>report</b>     | <b>function</b>             |
| F check                         |              | <b>sequencers</b> | <b>table</b>                |
| N criterium                     |              | F appendaction    |                             |
| B enabled                       |              | F appendgroup     |                             |
| <b>lua</b>                      | <b>table</b> | F compile         |                             |
| F compile                       |              | F disableaction   |                             |
| F loadedluacode                 |              | F disablegroup    |                             |
| N nofstrippedbytes              |              | F enableaction    |                             |
| N nofstrippedchunks             |              | F enablegroup     |                             |
| F stripbytecode                 |              | D functions       |                             |
| B stripcode                     |              | F localize        |                             |
| F strippedbytecode              |              | F new             |                             |
| F strippedloadstring            |              | F nodeprocessor   |                             |
| <b>packers</b>                  | <b>table</b> | F prependaction   |                             |
| F hashed                        |              | F prependgroup    |                             |
| F new                           |              | F removeaction    |                             |
| F pack                          |              | F setkind         |                             |
| F simplehashed                  |              | F tostring        |                             |
| F strip                         |              | <b>setters</b>    | <b>table</b>                |
| F unpack                        |              | F disable         |                             |
| N version                       |              | F enable          |                             |
| <b>parsers</b>                  | <b>table</b> | F initialize      |                             |
| F add_settings_to_array         |              | F list            |                             |
| F arguments_to_table            |              | F new             |                             |
| F array_to_string               |              | F register        |                             |
| F getparameters                 |              | F reset           |                             |
| F hash_to_string                |              | F show            |                             |
| F listitem                      |              | <b>stacker</b>    | <b>table</b>                |
| F make_settings_to_hash_pattern |              | F new             |                             |
| T patterns                      |              | <b>storage</b>    | <b>table</b>                |
| U settings_to_array             |              | F allocate        |                             |
| U settings_to_hash_a            |              | F checked         |                             |
| U settings_to_hash_b            |              | F mark            |                             |
|                                 |              | F marked          |                             |

|                  |                     |       |
|------------------|---------------------|-------|
| F setinitializer | tables              | table |
| F sparse         | F accesstable       |       |
| strings          | F definetable       |       |
|                  | F encapsulate       |       |
| F collapsecrLf   | F insertaftervalue  |       |
| F newrepeater    | F insertbeforevalue |       |
| F nice           | F migratetable      |       |
| F striplong      | F removevalue       |       |
| F tabtospace     |                     |       |

## vf (context)

|        |          |
|--------|----------|
| char   | function |
| down   | function |
| fontid | function |
| image  | function |
| node   | function |
| nop    | function |

|         |          |
|---------|----------|
| pop     | function |
| push    | function |
| right   | function |
| rule    | function |
| special | function |

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

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



|                      |          |                     |          |
|----------------------|----------|---------------------|----------|
| placeholders         | table    | serialize           | function |
| F unknown_any_entity |          | setcdata            | function |
| F unknown_dec_entity |          | sethandlersfunction | function |
| F unknown_hex_entity |          | setProperty         | function |
| position             | function | settings            | function |
| privatecodes         | table    | specialhandler      | table    |
| privatetoken         | function | sprint              | function |
| process              | function | string              | function |
| process_attributes   | function | strip               | function |
| process_elements     | function | strip_whitespace    | function |
| processattributes    | function | stripelement        | function |
| profiled             | table    | stripleadingspaces  | function |
| raw                  | function | table               | function |
| registerentity       | function | text                | function |
| registerns           | function | textonly            | function |
| remap_name           | function | texttocdata         | function |
| remap_namespace      | function | tocdata             | function |
| remap_tag            | function | toelement           | function |
| remapname            | function | tostring            | function |
| remapnamespace       | function | toxml               | function |
| remaptag             | function | tprint              | function |
| renamespace          | function | traverse            | function |
| replace              | function | unescaped           | function |
| replace_element      | function | unprivatized        | function |
| resolvns             | function | withelement         | function |
| root                 | function | withelements        | function |
| save                 | function | wrap                | function |
| selection            | function | xmlns               | table    |
| separate             | function |                     |          |

## 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> |                            |                       |